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Photo catalysis for Energy Conversion and Environmental Sustainability: A Review

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Abstract:

Photo catalysis has emerged as a promising technology for both energy conversion and environmental sustainability. This review provides a comprehensive overview of the recent advancements and applications of photocatalysis in these domains. We discuss the principles underlying photocatalysis, highlight various photocatalytic materials, and delve into their applications in energy conversion processes such as hydrogen generation and CO_2 reduction. Furthermore, we explore the role of photocatalysis in environmental sustainability, focusing on air and water purification, pollutant degradation, and remediation. By examining recent research trends and challenges, we aim to provide insights into the potential of photocatalysis as a versatile tool for addressing pressing energy and environmental concerns. Photocatalysis for Energy Conversion and **Environmental Sustainability**: A Review" delves into the pivotal role of photocatalysis in advancing energy conversion and fostering environmental sustainability. This comprehensive review scrutinizes the mechanisms, materials, and applications driving photocatalytic processes. Highlighting recent advancements, it explores how photocatalysis transforms solar energy into clean power sources and mitigates environmental pollutants through efficient degradation methods. The review also assesses challenges and future prospects, emphasizing the importance of innovative catalyst design, reactor engineering, and integration with renewable energy systems. By synthesizing key findings, this review illuminates the multifaceted potential of photocatalysis, offering insights crucial for addressing global energy demands and environmental concerns in the pursuit of a sustainable future.

Keywords: Photocatalysis, energy conversion, environmental sustainability, etc.

Introduction:

Photo catalysis, a process that utilizes light to drive chemical reactions on the surface of semiconductor materials, has emerged as a promising technology with wide-ranging applications in energy conversion and environmental sustainability. The concept of photocatalysis traces back to the pioneering work of Fujishima and Honda in 1972, who demonstrated water splitting on titanium dioxide (TiO2) electrodes under ultraviolet (UV) light irradiation. Since then, research in the field of photocatalysis has witnessed exponential growth, propelled by the pressing need for sustainable energy sources and solutions to environmental challenges.[1,2] The fundamental principle underlying photocatalysis lies in the generation of electron-hole pairs upon absorption of photons with energy equal to or greater than the bandgap of the semiconductor material. These photoexcited charge carriers can participate in various redox reactions, including oxidation and reduction processes, leading to the transformation of organic pollutants, the production of renewable fuels, and the degradation of environmental contaminants.[3,4] The motivation behind the exploration of photocatalysis for energy conversion stems from the increasing demand for clean and renewable energy sources to mitigate the impacts of climate change and reduce dependence on fossil fuels. Hydrogen production via photocatalytic water splitting represents a promising avenue for sustainable energy generation, offering a clean and abundant fuel source with water as the only byproduct. Moreover, photocatalytic reduction of carbon dioxide (CO2) holds the potential to convert greenhouse gases into valuable hydrocarbons, contributing to the mitigation of global warming and the transition towards a carbon-neutral economy.[5] In addition to energy conversion, photocatalysis offers compelling solutions to environmental challenges such as air and water pollution, soil contamination, and wastewater treatment. Photocatalytic materials can effectively degrade organic pollutants, volatile organic compounds (VOCs), and hazardous chemicals under light irradiation, offering a green and cost-effective approach to environmental remediation. Furthermore, photocatalytic disinfection and sterilization have been explored as promising alternatives to traditional water treatment methods, offering enhanced microbial inactivation without the need for chemical additives or secondary disinfection processes.[6] As research in photocatalysis continues to advance, significant strides have been made in the development of novel photocatalytic materials, the optimization of reaction conditions, and the integration of photocatalytic systems into practical applications. However, several challenges remain to be addressed, including the limited efficiency of photocatalytic processes, the susceptibility of photocatalysts to photodegradation, and the need for scalable and cost-effective synthesis methods.[7,8]

In light of these challenges, this review aims to provide a comprehensive overview of the recent advancements and applications of photocatalysis for energy conversion and environmental sustainability. By examining the underlying principles, exploring the latest developments in photocatalytic materials, and discussing emerging research trends, we seek to elucidate the potential of photocatalysis as a versatile and sustainable technology for addressing critical energy and environmental issues in the 21st century.[9]

Principles of Photocatalysis: Photocatalysis operates on the fundamental principles of semiconductor physics and photochemistry, where light-induced reactions occur on the surface of photocatalytic materials. Understanding these principles is crucial for designing efficient photocatalytic systems and optimizing their performance for various applications.

a) **Band Structure of Semiconductors**: Semiconductors, the primary materials used in photocatalysis, possess a characteristic electronic band structure comprising valence bands (VB) and conduction bands (CB). The energy difference between the VB and CB is defined as the bandgap energy (Eg). Photocatalytic reactions are initiated when photons with energy equal to or greater than the bandgap of the semiconductor are absorbed, promoting electrons from the VB to the CB and generating electron-hole pairs.[10-12]

b) **Charge Carrier Dynamics**: Upon photon absorption, electron-hole pairs are generated within the semiconductor material. The subsequent fate of these charge carriers determines the efficiency and selectivity of photocatalytic reactions. Electrons in the CB and holes in the VB can migrate to the surface of the photocatalyst, where they participate in redox reactions with adsorbed reactant molecules. Efficient charge carrier separation and transport are essential for minimizing charge recombination and maximizing photocatalytic activity.[13]

c) **Mechanisms of Photoinduced Reactions**: Photocatalytic reactions involve a series of photoinduced processes, including charge generation, migration, and surface reactions. In photocatalytic water splitting, for example, photoexcited electrons reduce water molecules to produce hydrogen gas (H2), while holes oxidize water or hydroxide ions to generate oxygen gas (O2). Similarly, in photocatalytic pollutant degradation, photoinduced radicals such as hydroxyl radicals (•OH) react with organic pollutants to break down complex molecules into harmless byproducts.[14]

d) **Surface Chemistry and Reactivity**: The surface properties of photocatalytic materials play a crucial role in determining their reactivity towards target molecules. Surface defects, crystal facets, and chemical functionalities influence the adsorption, diffusion, and reaction kinetics of reactant species on the photocatalyst surface. Tailoring the surface chemistry and morphology of photocatalytic materials through surface modification techniques can enhance their photocatalytic performance and selectivity.[13]

e) **Photocatalyst Design and Optimization**: The design and optimization of photocatalytic materials involves tailoring their optical, electronic, and structural properties to maximize light absorption, charge separation, and surface reactivity. Strategies such as bandgap engineering, heterojunction formation, doping, and cocatalyst deposition have been employed to enhance the photocatalytic activity and stability of semiconductor photocatalysts. Additionally, the choice of light source, irradiation intensity, and reaction conditions can significantly influence the kinetics and efficiency of photocatalytic reactions.[14]

Photocatalytic Materials: Photo catalytic materials serve as the foundation for harnessing light energy to drive chemical reactions, making them crucial components of photocatalysis-based technologies. A diverse array of materials, ranging from metal oxides to semiconducting polymers, have been explored for their photocatalytic properties. Understanding the properties and characteristics of these materials is essential for tailoring their performance and optimizing their efficiency in various photocatalytic applications.[15]

a) **Metal Oxides**: Metal oxides, particularly titanium dioxide (TiO2) and zinc oxide (ZnO), are among the most widely studied photocatalytic materials due to their excellent stability, abundance, and photocatalytic activity. TiO2, in particular, exists in three main crystalline forms: anatase, rutile, and brookite, each exhibiting distinct photocatalytic properties. ZnO, with its wide bandgap and high electron mobility, is valued for its efficiency in photocatalytic reactions such as water splitting and pollutant degradation.[16]

b) **Semiconductor Nanomaterials**: Semiconductor nanomaterials, including quantum dots, nanowires, and nanotubes, offer unique advantages for photocatalysis due to their high surface-to-volume ratios, quantum confinement effects, and tunable electronic properties. Semiconductor quantum dots, for instance, exhibit size-dependent optical properties and enhanced charge carrier dynamics, making them promising candidates for solar energy conversion and light harvesting applications.[17]

c) **Carbon-Based Materials**: Carbon-based materials, such as graphene, carbon nanotubes, and graphene oxide, have garnered significant attention as photocatalysts and cocatalysts for their exceptional electronic conductivity, chemical stability, and large surface areas. The unique electronic structure and catalytic activity of carbon-based materials enable efficient charge transfer and redox reactions, facilitating photocatalytic processes such as CO_2 reduction and organic pollutant degradation.[18,19]

d) **Perovskite Materials**: Perovskite materials, characterized by their ABX_3 crystal structure, have emerged as promising photocatalysts for solar energy conversion and environmental remediation applications. Hybrid organic-inorganic perovskites, in particular, exhibit tunable bandgaps, long carrier lifetimes, and high absorption coefficients, making them attractive candidates for photovoltaic devices, photocatalytic water splitting, and pollutant degradation under visible light irradiation.[20]

e) **Composite and Hybrid Materials**: Composite and hybrid photocatalytic materials composed of two or more components with synergistic properties, offer enhanced photocatalytic performance and versatility compared to individual components. Composite materials, such as metal-semiconductor heterostructures and carbon-based nanocomposites, combine the unique properties of different materials to improve charge separation, light absorption, and catalytic activity, enabling efficient energy conversion and pollutant degradation under diverse environmental conditions.[21]

f) **Surface Modification and Functionalization**: Surface modification techniques, including doping, surface coating, and functional group attachment, can tailor the surface chemistry and morphology of photocatalytic materials to enhance their photocatalytic activity, stability, and selectivity. Functionalization with noble metal nanoparticles, metal oxides, or organic ligands can facilitate charge transfer processes, inhibit charge recombination, and promote specific reaction pathways, thereby improving the overall efficiency of photocatalytic systems.[22]

Photo catalysis for Energy Conversion: Photocatalysis holds significant promise for energy conversion processes by utilizing light energy to drive chemical reactions that produce clean and renewable energy sources. Two primary areas of focus within photocatalytic energy conversion include water splitting for hydrogen generation and carbon dioxide (CO_2) reduction for the production of renewable fuels.[23]

a) **Water Splitting for Hydrogen Generation**: Photocatalytic water splitting involves the conversion of water molecules into hydrogen (H_2) and oxygen (O_2) using photocatalytic materials under light irradiation. Semiconductor photocatalysts, such as titanium dioxide (TiO_2), zinc oxide (ZnO), and metal oxides, absorb photons with energy greater than their bandgap to generate electron-hole pairs.[24] The photoexcited electrons reduce water molecules, while the holes oxidize water or hydroxide ions, resulting in the production of hydrogen gas as a clean and renewable fuel source. Strategies to enhance the efficiency of photocatalytic water splitting include bandgap engineering, heterojunction formation, cocatalyst deposition, and optimization of reaction conditions.[25]

b) **Carbon Dioxide (CO_2) Reduction**: Photocatalytic CO_2 reduction involves the conversion of CO_2 into value-added products such as methane (CH_4), methanol (CH_3OH), and carbon monoxide (CO) using solar energy and photocatalytic materials. Semiconductor photocatalysts, particularly metal oxides, perovskites, and carbon-based materials, absorb photons in the visible or ultraviolet (UV) range to initiate photoinduced reactions with CO_2 molecules. Photoexcited electrons reduce CO_2 to hydrocarbons or oxygenates, while holes oxidize sacrificial agents or water molecules to generate protons and oxygen. The photocatalytic reduction of CO_2 offers a sustainable approach to mitigate greenhouse gas emissions, convert CO_2 into valuable chemical feedstocks, and store solar energy in chemical bonds for future use.[24-25] In summary, photocatalysis for energy conversion represents a promising avenue for harnessing solar energy to produce clean and renewable fuels, such as hydrogen and hydrocarbons, from abundant and readily available resources. Continued research efforts aimed at improving the efficiency, selectivity, and scalability of photocatalytic systems hold the potential to accelerate the transition towards a sustainable energy future and mitigate the impacts of climate change. [25]

Photocatalysis for Environmental Sustainability: The application of photocatalysis extends to environmental sustainability, encompassing air and water purification, pollutant degradation, and remediation of contaminated sites. In this section, we examine the role of photocatalysis in addressing various environmental challenges and discuss its advantages and limitations.

Challenges and Future Perspectives: Despite the significant progress made in the field of photocatalysis, several challenges persist that hinder its widespread adoption and practical application. Addressing these challenges and exploring new research directions are crucial for advancing the development of photocatalytic technologies and realizing their full potential in addressing pressing energy and environmental concerns. Some of the key challenges and future perspectives in photocatalysis include:

a) **Photocatalyst Stability**: Many photocatalytic materials suffer from photodegradation and instability under prolonged light exposure, limiting their long-term performance and durability. Developing photocatalysts with enhanced stability, resistance to photo corrosion, and long-term reliability is essential for practical applications in outdoor environments and industrial settings.

b) **Efficiency Enhancement**: Enhancing the efficiency of photocatalytic processes, including light absorption, charge separation, and surface reactions, remains a significant challenge. Strategies to improve photocatalytic efficiency include bandgap engineering, surface modification, cocatalyst deposition, and optimization of reaction conditions to maximize the quantum yield and conversion efficiency of photocatalytic reactions.[24-25]

c) **Scalability and Cost-Effectiveness**: Scaling up photocatalytic processes from laboratory-scale experiments to industrial-scale applications poses technical and economic challenges. Developing scalable synthesis methods, reactor designs, and manufacturing processes is essential for achieving cost-effective production and deployment of photocatalytic technologies for large-scale energy conversion and environmental remediation.

d) **Selectivity and Specificity**: Achieving high selectivity and specificity in photocatalytic reactions, particularly in complex reaction environments and multicomponent systems, remains a formidable challenge. Controlling reaction pathways, minimizing side reactions, and improving the selectivity of photocatalytic materials towards target products are critical for maximizing the yield and purity of desired end products.

e) **Integration with Renewable Energy Sources**: Integrating photocatalytic technologies with renewable energy sources, such as solar, wind, and hydroelectric power, presents opportunities to enhance energy efficiency, reduce carbon emissions, and achieve energy self-sufficiency. Developing hybrid systems that combine photocatalysis with other renewable energy conversion technologies, such as photovoltaics and electrochemical cells, can enable efficient energy harvesting and storage for sustainable energy applications.

f) **Environmental and Health Considerations**: Addressing potential environmental and health concerns associated with photocatalytic materials and byproducts is essential for ensuring the safety and sustainability of photocatalytic technologies. Understanding the environmental fate, toxicity, and ecological impacts of photocatalytic materials and their degradation products is critical for responsible and ethical deployment of photocatalytic systems in real-world applications.[24-25] Finally, the overcoming the challenges and limitations of photocatalysis requires interdisciplinary research efforts, collaboration between academia, industry, and government agencies, and sustained investment in fundamental research and technology development. By addressing these challenges and exploring new avenues for innovation, photocatalysis has the potential to play a transformative role in achieving sustainable energy conversion, environmental remediation, and human well-being in the 21st century.[9,25]

Conclusion: In conclusion, photocatalysis offers a promising pathway towards sustainable energy conversion and environmental remediation. By harnessing the power of light, photocatalytic materials can drive a wide range of chemical transformations with minimal environmental impact. Continued research efforts aimed at addressing challenges and exploring new avenues hold the key to unlocking the full potential of photocatalysis in the quest for a cleaner and more sustainable future.

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Eco-friendly Solutions: A Review of Green Chemistry Principles and Applications

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Abstract:

Green chemistry has emerged as a pivotal approach in addressing environmental concerns while promoting sustainable development. This paper provides a comprehensive review of green chemistry principles and their applications across various industries. We explore the fundamental principles of green chemistry, including waste minimization, the use of renewable feedstocks, energy efficiency, and the design of safer chemicals and processes. Through case studies and examples, we highlight the successful implementation of green chemistry principles in different sectors, ranging from pharmaceuticals and agriculture to materials science and energy production. Additionally, we discuss the challenges and future prospects of green chemistry, emphasizing the need for continued research and innovation to advance eco-friendly solutions. In the face of escalating environmental concerns, the imperative to adopt sustainable practices has catalyzed a paradigm shift in chemical research and industrial processes. This review elucidates the core tenets of Green Chemistry, emphasizing the design and implementation of environmentally benign methodologies to minimize the ecological impact of chemical activities. Delving into innovative applications across various industries, the abstract highlights how green chemistry fosters the development of cleaner and more efficient technologies. By scrutinizing the interplay between science, industry, and environmental preservation, this review seeks to underscore the pivotal role of Green Chemistry in shaping a harmonious and sustainable future. As society grapples with the urgency of environmental stewardship, this exploration provides valuable insights into the transformative potential of eco-friendly solutions grounded in Green Chemistry principles.

Keywords*:* Green chemistry, sustainability, eco-friendly solutions, renewable feedstocks, waste minimization, energy efficiency, etc.

Introduction:

The 21st century presents humanity with a dual challenge: to meet the growing demands for goods and services while simultaneously safeguarding the health of our planet. Central to this challenge is the need to address the environmental impact of industrial processes, particularly those rooted in conventional chemistry. The introduction of harmful chemicals, generation of hazardous waste, and depletion of non-renewable resources associated with traditional chemical synthesis pose significant threats to ecosystems, human health, and the overall sustainability of our planet. In response to these pressing concerns, the concept of green chemistry has emerged as a beacon of hope and innovation. Green chemistry, also referred to as sustainable chemistry, represents a paradigm shift in how we conceive, design, and execute chemical processes. At its core, green chemistry embodies a set of principles aimed at minimizing environmental harm, reducing resource consumption, and promoting the development of safer, more sustainable chemical products and processes. The genesis of green chemistry can be traced back to the seminal work of Paul Anastas and John Warner, who articulated the twelve principles of green chemistry in the late 1990s. These principles serve as guiding tenets for researchers, engineers, and policymakers seeking to advance the goals of sustainability and environmental stewardship within the chemical industry and beyond.

The principles of green chemistry encompass a wide range of considerations, including waste minimization, the use of renewable feedstocks, energy efficiency, and the design of inherently safer chemicals and processes. By adhering to these principles, chemists and engineers can mitigate the environmental impact of chemical synthesis while simultaneously improving process efficiency, reducing costs, and enhancing product quality. The adoption of green chemistry principles has yielded tangible benefits across a diverse array of industries. From pharmaceuticals and agriculture to materials science and energy production, green chemistry innovations have revolutionized traditional approaches to chemical synthesis and manufacturing, paving the way for more sustainable and eco-friendly solutions.

In this review, we embark on a comprehensive exploration of green chemistry principles and their applications in addressing contemporary environmental challenges. We examine the fundamental tenets of green chemistry, highlight key examples of its implementation across various industries, and discuss the challenges and opportunities that lie ahead in the quest for a more sustainable future.

Through this endeavor, we aim to underscore the transformative potential of green chemistry as a catalyst for positive change, inspiring scientists, policymakers, industry leaders, and consumers alike to embrace the principles of sustainability, innovation, and environmental stewardship in their pursuit of a brighter tomorrow. In the subsequent sections of this review, we delve into the fundamental principles of green chemistry, explore its diverse applications across industries, discuss challenges and future perspectives, and conclude with a call to action for collective action and collaboration in advancing the frontiers of green chemistry and sustainability. In summary, the journey towards a greener, more sustainable future begins with a fundamental shift in mindset—an acknowledgment of our shared responsibility to safeguard the planet for future generations. Green chemistry offers a roadmap for realizing this vision, charting a course towards a world where environmental protection and economic prosperity are not mutually exclusive, but rather, inseparable pillars of a thriving global society.

Fundamental Principles of Green Chemistry:

The fundamental principles of green chemistry provide a framework for the design, development, and implementation of environmentally benign chemical processes. These principles, originally articulated by Paul Anastas and John Warner in the late 1990s, serve as guiding tenets for scientists, engineers, and policymakers striving to minimize the environmental impact of chemical synthesis and manufacturing. Below, we delve into the core principles of green chemistry:

a) **Atom Economy**: Atom economy, also known as atom efficiency or atom utilization, is a key concept in green chemistry. It refers to the percentage of reactant atoms that end up in the desired product(s) of a chemical reaction. In green chemistry, the goal is to maximize atom economy by designing synthetic routes that minimize the generation of waste products and byproducts. By optimizing reaction pathways and minimizing side reactions, chemists can enhance atom economy, reduce resource consumption, and minimize environmental pollution.

b) **Renewable Feedstocks**: The use of renewable feedstocks is central to the principles of green chemistry. Unlike conventional chemical processes that rely heavily on fossil fuels and non-renewable resources, green chemistry advocates for the utilization of renewable raw materials derived from sustainable sources such as biomass, agricultural residues, and bio-based feedstocks.

c) **Safer Chemicals and Processes**: Safety is paramount in green chemistry. The design and synthesis of safer chemicals and processes aim to minimize the inherent hazards and risks associated with chemical production and use. Green chemists prioritize the development of chemical compounds that exhibit low toxicity, reduced flammability, and decreased environmental persistence. Additionally, green chemistry emphasizes the use of inherently safer process technologies, such as microwave-assisted synthesis, flow chemistry, and continuous manufacturing, to minimize the potential for accidents, spills, and releases of hazardous substances.

d) **Energy Efficiency**: Energy efficiency is a cornerstone of green chemistry. Green chemists seek to optimize reaction conditions, temperature, pressure, and solvent usage to minimize energy consumption and maximize process efficiency. By employing energy-efficient synthesis methods, such as catalysis, microwave irradiation, and photochemistry, chemists can reduce the carbon footprint of chemical processes, decrease greenhouse gas emissions, and conserve valuable resources. Energy-efficient processes also offer economic benefits by lowering production costs and enhancing competitiveness in the marketplace.

e) **Waste Minimization**: Waste minimization lies at the heart of green chemistry. Green chemists strive to design synthetic routes that generate minimal waste and maximize the utilization of raw materials. Strategies for waste minimization include the use of catalytic reactions, atom-efficient transformations, and solvent-free or solvent-reduced processes. By adopting waste-minimization strategies, chemists can reduce the environmental burden associated with chemical synthesis, decrease disposal costs, and promote the efficient use of resources.

f) **Design for Degradation**: The concept of design for degradation entails the deliberate design of chemical products and materials with end-of-life considerations in mind. Green chemists seek to develop products that are inherently biodegradable, recyclable, or compostable, thus minimizing their environmental impact at the end of their useful life. By incorporating principles of green chemistry into product design, manufacturers can reduce the accumulation of persistent pollutants in the environment and promote the development of closed-loop, circular economies. By adhering to these fundamental principles, chemists and engineers can promote the development of sustainable, environmentally friendly chemical products and processes that minimize environmental impact, conserve resources, and safeguard human health and well-being. Green chemistry principles serve as a roadmap for innovation and sustainability, guiding the transition towards a more resilient, regenerative economy that meets the needs of current and future generations without compromising the integrity of the planet.

Applications of Green Chemistry: Green chemistry principles find wide-ranging applications across various industries, offering innovative solutions to environmental challenges while promoting sustainability and resource conservation. Below, we explore some of the key areas where green chemistry principles are making a significant impact:

a) **Pharmaceutical Industry**: In the pharmaceutical industry, green chemistry approaches are revolutionizing drug discovery, development, and manufacturing processes. Green chemistry principles enable the synthesis of pharmaceutical compounds using safer, more environmentally benign reagents and solvents. By employing catalytic reactions, biocatalysis, and green solvents, pharmaceutical companies can reduce the generation of hazardous waste and minimize the environmental footprint of drug production.
b) **Agriculture and Food Production**: Green chemistry plays a crucial role in promoting sustainable agriculture and food production practices. By developing eco-friendly pesticides, herbicides, and fertilizers, green chemists help minimize the environmental impact of conventional agricultural practices while ensuring food security and crop protection.
c) **Materials Science:** In the field of materials science, green chemistry principles are driving the development of sustainable alternatives to traditional petrochemical-based materials. Green chemistry innovations enable the synthesis of polymers, nanoparticles, and composite materials using renewable feedstocks, bio-based monomers, and environmentally benign synthesis routes.
d) **Energy Sector**: Green chemistry innovations are transforming the energy sector by enabling the development of renewable energy technologies and sustainable fuel sources. Green chemistry principles support the synthesis of biofuels, hydrogen, and alternative energy carriers using biomass-derived feedstocks and environmentally friendly catalysts.
e) **Consumer Products and Cosmetics**: Green chemistry principles are increasingly shaping the formulation and production of consumer products and cosmetics. Green chemistry innovations enable the development of biodegradable detergents, surfactants, and personal care products that minimize environmental impact and promote human health. In summary, green chemistry principles offer transformative solutions to pressing environmental challenges across a wide range of industries. By integrating sustainability criteria into chemical design, synthesis, and manufacturing processes, green chemistry enables the development of safer, more eco-friendly products and technologies that promote human well-being, protect the environment, and contribute to the transition towards a more sustainable future.

Challenges and Future Perspectives:

While green chemistry has made significant strides in promoting sustainability and reducing environmental impact, several challenges remain to be addressed. Additionally, exploring future perspectives is essential for advancing the field and maximizing its potential impact. Below, we discuss the challenges faced by green chemistry and offer insights into future directions and opportunities:

a) **Technological Barriers**: One of the primary challenges facing green chemistry is the need to overcome technological barriers associated with the development and implementation of sustainable processes and technologies. Green chemistry often requires innovative approaches, new catalysts, and novel reaction pathways, which may pose technical challenges in terms of scalability, reproducibility, and cost-effectiveness.
b) **Economic Constraints**: Another significant challenge facing green chemistry is the economic viability of sustainable processes and products compared to conventional alternatives. While green chemistry principles offer long-term benefits in terms of resource conservation, pollution prevention, and regulatory compliance, the upfront costs of implementing green technologies and transitioning away from traditional practices can be prohibitive for some industries.
c) **Regulatory Hurdles**: Regulatory frameworks and policies play a crucial role in shaping the adoption and implementation of green chemistry principles. However, existing regulations may pose barriers to the

commercialization of green technologies and inhibit innovation by favoring established practices and incumbent industries. Green chemistry advocates must work collaboratively with policymakers, regulatory agencies, and industry stakeholders to develop science-based regulations that incentivize sustainable practices, encourage pollution prevention, and promote the use of safer chemicals and processes.

d) **Education and Training**: A lack of awareness, education, and training in green chemistry principles and practices represents a significant barrier to widespread adoption and implementation. Many chemists, engineers, and policymakers may not be familiar with the principles of green chemistry or the potential benefits of sustainable technologies.

e) **Global Collaboration**: Achieving the full potential of green chemistry requires global collaboration and cooperation among governments, academia, industry, and civil society. Environmental challenges such as climate change, pollution, and resource depletion are inherently transnational in nature and require coordinated action at the international level. By sharing knowledge, best practices, and technological innovations, countries can accelerate the transition towards a more sustainable and resilient global economy while addressing pressing environmental issues that affect communities worldwide.

Future Perspectives: Looking ahead, several key areas offer opportunities for advancing the frontiers of green chemistry and maximizing its impact:

a) **Innovation and Research**: Investment in research and development is critical for driving innovation and unlocking new opportunities in green chemistry. Future research directions may include the development of novel catalysts, sustainable feedstocks, and green solvents, as well as the exploration of emerging technologies such as artificial intelligence, machine learning, and biotechnology for sustainable chemical synthesis and manufacturing.

b) **Circular Economy**: The concept of the circular economy, which emphasizes the reuse, recycling, and regeneration of materials and resources, presents significant opportunities for green chemistry. By designing products and processes with circularity in mind, green chemists can minimize waste, conserve resources, and promote the efficient use of materials throughout their lifecycle, thereby contributing to a more sustainable and resource-efficient economy.

c) **Green Chemistry Metrics**: The development of robust metrics and indicators for assessing the environmental performance and sustainability of chemical products and processes is essential for guiding decision-making, evaluating progress, and benchmarking performance. Green chemistry metrics such as life cycle assessment (LCA), eco-efficiency analysis, and green chemistry indices provide valuable tools for quantifying environmental impact, identifying hotspots, and optimizing processes for maximum sustainability.

d) **Policy and Regulation:** Policy and regulatory frameworks play a crucial role in shaping the adoption and diffusion of green chemistry innovations. Governments and regulatory agencies can support the transition to green chemistry by implementing policies that incentivize sustainable practices, promote pollution prevention, and internalize the true costs of environmental degradation. By aligning regulatory incentives with sustainability goals, policymakers can create an enabling environment for green chemistry innovation and investment.

e) **Public Engagement and Outreach**: Raising awareness and fostering public engagement in green chemistry principles and practices are essential for building support, generating demand, and driving change at the grassroots level. Outreach initiatives, educational programs, and public-private partnerships can empower consumers, businesses, and communities to make informed choices, adopt sustainable behaviors, and advocate for policies that prioritize environmental protection and sustainability.

In conclusion, while challenges remain, the future of green chemistry is bright and full of promise. By embracing innovation, collaboration, and sustainability, we can harness the transformative power of green chemistry to build a more resilient, equitable, and sustainable future for generations to come. Through collective action and shared commitment, we can unlock the full potential of green chemistry to address pressing environmental challenges and create a world where prosperity and sustainability go hand in hand.

Conclusion:

Green chemistry represents a paradigm shift in how we conceive, design, and implement chemical processes, offering a transformative approach to sustainability and environmental stewardship. Throughout this review, we have explored the fundamental principles of green chemistry, its diverse applications across industries, and the challenges and opportunities that lie ahead. By investing in research and development, embracing the circular economy, advancing green chemistry metrics, and engaging stakeholders at all levels, we can unlock the full potential of green chemistry to address pressing environmental challenges and create a more sustainable, resilient future for generations to come. In conclusion, green chemistry offers a roadmap for sustainable development and environmental stewardship a vision of a world where prosperity, innovation, and environmental protection are not mutually exclusive, but rather, integral components of a thriving global society. By embracing the principles of green chemistry and working together towards common goals, we can build a brighter, more sustainable future for ourselves and for future generations.

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Employee Engagement Practices In Selected Private Colleges With Reference To Patna District

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Abstract:

The private colleges are the best in implementing the employee engagement practices in the education industry. The paper is aiming to study the employee engagement practices implemented in the private education sector in Bihar. The study conducted with the private college employees in Patna district of Bihar. For which 200 sample respondents are selected from the 10 colleges which are in the district. The employee engagement practices are analyzed in the view of its drivers like (Autonomy, Training and Development, Compensations, Work Environment).

Keywords: Employee engagement practices, autonomy, training and development, compensations, work environment

Introduction:

Private colleges must understand that in present scenario educational dynamics changing in regular basis and to adopt these changes we need cherished our resources especially human resources. This means not just attracting and retaining the talent but keeping them driven and committed to accomplish the academics goals. Achieving academics goals requires holistic thinking and integrated action. In order to achieve increased and sustainable academics results, colleges need to engage their employees. Engaged employees have sense of energetic and effective connection with their work activities and see themselves as able to deal well with the demands of their job (Schaufeli and Bakker, 2004). Thus, private colleges are competing for talented people who are having high performance and competence in workplace. However, achieving educational goals and healthy working conditions are the ultimate purpose to be focused by any private college that takes enormous effort to maximize employee's task efficiency, commitment and sustain intrinsic motivation to perform well. This is why efforts to improve overall development of the employee, private colleges should inculcate the positive concept of employee engagement practices.

Employee Engagement Practices: Engaged employees are not naturally born, but can developed by organizational support and practices. Engagement is not an event; rather it is a process and needs to be managed in a systematic way. Employee engagement practices enable people to be the best they can at work, recognizing that this can only happen if they feel respected, involved, heard, and valued by those they work for and with (Lockwood, 2007) engaged employees have sense of personal attachment to their work and organization, they are motivated and able to give of their best to help it succeed and from that flows a series of tangible benefits for organization and individual alike. Engagement is two ways: organizations must work to engage the employee, who in turn has choice about the level of engagement to offer the employer. Each reinforces the other.

Drivers of Employee engagement practices: Major drivers of employee engagement practices are Autonomy, Training and Development, Compensations, Work Environment.

Statement of the problem: The functions of the human resources management department are very difficult as it deals with man power particularly in the banking sector; the employees are highly educated and talented. The role of the department in acquiring, developing, and retaining the talented employees are important. The role of the management to achieve its organizational goal, it is required to implement the employee engagement practices at the different level. It becomes importance to study the employee engagement practices in the private colleges and different drivers on the employee engagement implemented. This article analysis the engagement practices in the private colleges based on its drivers.

Literature review: Kahn (1990 is usually credited as the pioneer in the field of employee engagement (Avery et al..2007; Stairs and Galpin, 2006). He developed the first grounded theory regarding personal engagement and disengagement at work.

He concluded that to become highly engaged, employees need three psychological conditions in their work: psychological meaningfulness, psychological safety, and psychological availability. According to Kahn, engagement means to be psychologically as well as physically Present when occupying and performing an organizational role. Most often employee engagement has been defined as emotional and intellectual commitment to the organization (Baumruk, 2006; Richman, 2006 and Shaw, 2005) or the amount of discretionary effort exhibited by employees in their job (Frank et al., 2004). Although it is acknowledged and accepted that employee engagement is a multifaceted construct, as previously suggested by Kahn (1990), Truss et al. (2006) define employee engagement simply as 'passion for work', a psychological state which is seen to encompass the three dimensions of engagement discussed by Kahn (1990), and captures the common theme running through all these definitions. According to Macleod and Clarke (2009). Engaged employees have a sense of personal devotion to their work and organization; they are committed and capable to give of their best to help it succeed and from that flows a series of physical profit for organization and individual alike. Engagement is about creating opportunities for individual to communicate with the colleagues, manager, and wider organization. It also is motivated to communicate with their work and serious about the job that he/she is doing. It creates flexibility at the place change and continuous improvement at the heart of what its approach to be an individual and a company in a twenty first century place of work. It is a concept of positive attitude held by the individual towards the company and its values. An engaged employee is aware of the business context and work with colleagues to enhance quality of the work which affect the profit of the organization. The organization should develop and encourage engagement which requires a two-way relationship between employee and organization.

Objective of the study:

1. To study the demographical variables of the sample's respondents.
2. To analyze the implementation of employee engagement practices based on drivers.
3. To understand the relationship between the demographical variables and the opinion of the employees of the private colleges on the employee engagement practices implementation.

Research methodology: The study is conducted in Patna District of Bihar during September-December 2023. To study the employee engagement practices in private colleges, 10 private colleges were selected based on employee's strength. 20 sample respondents were selected from each college using the simple random technique. Total 200 sample respondents were met and collected data through questionnaire.

Hypothesis: H_0: There is no significant relationship between demographic variable and employee engagement practices variable.

Profile of the Respondents: The demographic profile of the sample respondents from the selected private colleges are summarized below.

Table 1 Demographic profile of the sample respondents

Demographic variable	Groups	No. of Respondents	Percent
Gender	Male	126	63.0
	Female	74	37.0
Age group	25-35	78	39.0
	36-45	87	43.5
	46-Above	35	17.5
Marital status	Single	84	42.0
	Married	116	58.0
Educational qualification	PG+NET	56	28.0
	PhD	36	18.0
	Others	108	54.0
Income level	25-35K	122	61.0
	36-50K	52	26.0
	51K-Above	26	13.0
Designation	Director	08	4.0
	Principal	08	4.0
	HOD	36	18.0
	Professor	28	14.0
	Associate Professor	36	18.0
	Assistant Professor	84	42.0
Experience	0-05 years	120	60.0
	06-10 years	53	26.5
	11years- Above	27	13.5

Out of 200 respondents, 126 (63.0%) male respondents and 74 (37.0%) female respondents in the gender group. It is found that 87 (43.5%) respondents in 36-45 age group. It is also found that 116 (58.0%) respondents were married, 56 (28.0%) respondents had PG+NET qualification and only 36 (18.0%) respondents had completed their PhD for the lectureship and rest of them belong to others category i.e., 108 (54.0%) respondents. 122 (61.0%) respondents belong to 25-35K income level group and only 26 (13.0%) respondents belong to 51K-Above income category. 84 (42.0%) respondents were assistant professor and 28 (14.0%) and 36 (18.0%) respondents belong to professor and associate professor category. It is found that 120 (60.0%) respondents had less experience and they belong to 0-05 years category and only 27 (13.5%) respondents were experienced more than 11 years and above.

Relationship between demographic variable and employee engagement practices in the selected Private Colleges in the Patna District.

The relationship between the demographic nature of the respondents and their opinion about the employee engagement practices are tested with the help of the hypothesis. The opinion of the respondents about the employee engagement practices are measured according to the different elements of employee engagement practices i.e., Autonomy, Training and Development, Compensations, Work Environment in the selected private colleges of Patna District.The framed hypothesis is tested with the help of Z test and One-way Anova. The results are given below.

Table 2 The relationship of gender and marital status with employee engagement practices: Z test

Drivers	Gender	Marital status						
	Category	Mean	Z	P	Category	Mean	Z	P
Autonomy	Male	19.02	-0.337	0.736	Single	19.40	1.017	0.310
	Female	19.18			Married	18.91		
Training and Development	Male	20.77	0.597	0.551	Single	20.60	-0.339	0.690
	Female	20.58			Married	20.73		
Compensations	Male	18.05	-1.186	0.237	Single	17.75	-1.923	0.056
	Female	18.53			Married	18.54		
Work environment	Male	17.47	-3.328	0.001	Single	19.49	-1.016	0.311
	Female	18.74			Married	19.83		

The above table shows the result of the Z test. According to the gender, female respondents have given better opinion than male respondents about autonomy (19.18). The opinion of the female respondents were better for training and development (20.58), compensations (18.53), work environment (18.74). The Z test result explicates that the opinion of the male and female respondents do not significantly differ except work environment. The Z value is 3.328 which is less than -1.96. Hence, the framed null hypothesis is rejected. It is concluded that the female respondent's opinion about the work environment is significantly higher than male respondents. The opinion of the respondents based on their marital status, married respondents' opinion is higher about training and development (20.73), compensations (18.54), work environment (19.83). Unmarried respondents feel that autonomy is better (19.40). The Z test explores that the P values for all the elements of employee engagement practices were more than 0.05, hence the framed null hypothesis is accepted and concluded that the opinion of the respondents is not significantly varying about the employee engagement practices according to their marital status.

Table 3 Relationship between demographic variable and employee engagement practices: One Way Anova

Drivers	Age Group				Educational Qualification			
	Category	Mean	F	P	Category	Mean	F	P
Autonomy	25-35	18.88	0.499	0.608	PG+NET	19.28	0.509	0.602
	36-45	19.00			PhD	18.81		
	46-Above	19.43			Others	19.30		
Training and Development	25-35	20.94	1.058	0.349	PG+NET	20.88	0.566	0.569
	36-45	20.67			PhD	20.50		
	46-Above	20.38			Others	20.76		
Compensations	25-35	18.10	2.597	0.077	PG+NET	19.36	4.223	0.016
	36-45	17.81			PhD	17.69		
	46-Above	18.92			Others	18.26		
Work environment	25-35	19.32	2.409	0.093	PG+NET	19.36	3.425	0.034
	36-45	19.73			PhD	19.56		
	46-Above	20.18			Others	20.42		

The table 3 reveals that the respondents belong to the old age is about autonomy (19.43), compensations (18.92), work environment (20.18) of the employee engagement practices in private colleges were better. The young age respondents feel that training and development (20.94). The result of the One-way Anova depicts that there were no significant difference in the mean of the respondents about different elements of employee engagement practices (P values were greater than 0.05). Hence, it is concluded that the opinion did not differ according to the age of the respondents. The opinion of the respondents based on their educational qualification, the respondents who belongs to PG+NET feel good about training and development (20.88), compensations (19.36) of the employee engagement practices in the private colleges of Patna District. Respondents belongs to others category have opinioned that autonomy (19.30), work environment (20.42) of employee engagement practices in the private colleges. The One-way Anova test indicated that the opinion of the respondents towards compensations (P-0.016) and work environment (P-0.034) is significantly varying according to the educational qualification. The good opinion of the other category respondents about compensations and work environment is significantly higher than PhD groups.

Table 4 Relationship between demographic variable and employee engagement practices: One Way Anova

Drivers	Income Level				Experience			
	Category	Mean	F	P	Category	Mean	F	P
Autonomy	25-35K	18.95	0.270	0.764	0-05 yr.	19.28	2.275	0.106
	36-50K	19.34			06-10 yr.	19.14		
	51K-Above	19.19			11 yr.-Above	17.23		
Training and Development	25-35K	20.82	0.750	0.474	0-05 yr.	20.66	0.555	0.575
	36-50K	20.60			06-10 yr.	20.63		
	51k-Above	20.26			11 yr.- Above	21.31		
Compensations	25-35K	18.16	7.175	0.001	0-05 yr.	17.80	7.984	0.000
	36-50K	17.58			06-10 yr.	18.34		
	51K-Above	20.00			11 yr.- Above	21.00		
Work environment	25-35K	19.66	1.237	0.292	0-05 yr.	19.70	0.949	0.389
	36-50K	19.51			06-10 yr.	19.60		
	51K-Above	20.33			11 yr.- Above	20.54		

The table 4 reveals that income group of the respondents, the opinion of the less income respondents were higher than other respondents about training and development (20.82). The moderately experienced respondents have given good opinion about autonomy (19.34). Higher level of income group respondents' opinion was better for compensations (20.00), work environment (20.33). The One Way Anova shows that the difference in the opinion of the respondents between the different income level group are significant for compensations (P-0.001), hence the opinion of the higher-level income group was high. The framed null hypothesis is rejected for the compensations driver of the employee engagement practices. The opinion of the respondents based on their experience, the respondents who have less experienced have opined better about autonomy (19.28). Respondents who have more experienced they better opinion about training and development (21.31), compensations (21.00), work environment (20.54). The F values show that there is no significant difference in the mean except compensations. The P value (0.000) for the compensations shows significance at 1% level.

Table 5 Relationship between the designation variables and the opinion about employee engagement practices: One Way Anova

Driver	Designations	Mean	F	P
Autonomy	Director	17.64	2.404	0.038
	Principal	18.44		
	HOD	19.18		
	Professor	17.81		
	Associate Professor	16.40		
	Assistant Professor	17.43		
Training and Development	Director	20.29	2.000	0.080
	Principal	20.56		
	HOD	20.10		
	Professor	19.66		
	Associate Professor	18.20		
	Assistant Professor	19.03		
Compensations	Director	19.00	2.502	0.032
	Principal	18.94		
	HOD	18.23		
	Professor	17.58		
	Associate Professor	18.40		
	Assistant Professor	19.30		

Work environment	Director	19.36	0.493	0.781
	Principal	18.69		
	HOD	19.36		
	Professor	18.84		
	Associate Professor	20.80		
	Assistant Professor	19.22		

The table 5 shows that director had high mean for training and development (20.29) to engage an employee at the work place. The opinion of the associate professor were high mean for work environment (20.80) for engagement practices in the private colleges. The respondents who were working as assistant professor had good opinion about the compensations (19.30). The opinion of the HOD were high mean about the autonomy (19.18), but the opinions of the respondents are significant different for compensations (P-0.32) and work environment (P- 0.038) of the employees as per the result of One Way Anova.

Suggestions and Conclusion:

The study has been made empirically with 200 samples. From the result of the findings, it is suggested to the private colleges to improve the employee engagement practices. Good work environment is found with the female and more experienced employees. To motivate and improve overall employee engagement practices, the private colleges must improve work environment for male and less experienced employees. The result of testing hypothesis has revealed that more experienced employees, highly paid employees, and assistant professor were having good opinion about compensations. On the other hand, the PhD holders, moderate experienced, less earning and professor category employees have not more satisfied with the compensations policies of the private colleges of Patna district. Hence, it is suggested that the compensations of these employees based on the performance could increase the level of employee engagement practices in their private colleges.

In the education industry where there government colleges could not reach all the places to spread the better education for the society, this is the reason for private colleges started to educate the backward society and provide the quality education for all.

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Evaluating the Ecological Consequences of Invasive Species on Fish Communities in Morshi Taluka, Amravati District, Maharashtra, India

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Abstract:

Invasive species pose a significant threat to freshwater ecosystems worldwide, disrupting native biodiversity and ecosystem processes. This study investigates the impact of invasive species on the fish fauna in and around Morshi Taluka, located in the Amravati District of Maharashtra, India. Through field surveys and data analysis, we assessed the presence and abundance of invasive species and their potential effects on native fish populations. Our findings reveal a notable presence of invasive species, including the notorious Common Carp (Cyprinus carpio) and Nile Tilapia (Oreochromis niloticus), in the water bodies of Morshi Taluka. Furthermore, we observed shifts in the composition and distribution of native fish species, indicating potential competitive interactions and habitat alterations caused by invasive species. These findings underscore the urgent need for effective management strategies to mitigate the impacts of invasive species and conserve native fish fauna in Morshi Taluka and similar freshwater ecosystems. This study contributes valuable insights into the ecology of invasive species and highlights the importance of proactive conservation measures to safeguard freshwater biodiversity in the region.This study examines the impact of invasive species on fish fauna in and around Morshi Taluka, Amravati District, Maharashtra, India. The research question focuses on determining the presence, abundance, and ecological consequences of invasive species such as Common Carp (Cyprinus carpio) and Nile Tilapia (Oreochromis niloticus) on native fish populations within the study area. Field surveys were conducted to assess the distribution and abundance of both invasive and native fish species. Data analysis techniques, including statistical methods, were employed to evaluate the observed patterns and potential interactions between invasive and native species. Key findings indicate a significant presence of invasive species in the water bodies of Morshi Taluka, leading to alterations in native fish populations and community structure. The study highlights the urgent need for proactive management strategies to mitigate the impacts of invasive species and conserve native biodiversity in freshwater ecosystems. Effective conservation measures are essential to safeguard the ecological integrity and sustainability of fish fauna in the region.

Keywords: Evaluating, Ecological Consequences, Invasive Species, Fish Communities, Morshi Taluka, Amravati District, Maharashtra, India, African Catfish, (Clarias gariepinus), Common Carp (Cyprinus carpio), Tilapia (Oreochromis spp.)

Introduction:

Invasive species represent a pervasive threat to global biodiversity, causing significant ecological disruptions and economic losses. In freshwater ecosystems, invasive species can outcompete native species, alter habitat structure, and disrupt ecosystem functioning. The Morshi Taluka, situated within the Amravati District of Maharashtra, India, harbors diverse aquatic habitats that are vulnerable to invasion by non-native species. However, the extent and implications of invasive species on the fish fauna within this region remain poorly understood.

This study aims to address this knowledge gap by investigating the impact of invasive species on fish fauna in and around Morshi Taluka. Specifically, the research seeks to determine the presence, abundance, and ecological consequences of invasive species, including the Common Carp (Cyprinus carpio) and Nile Tilapia (Oreochromis niloticus), on native fish populations.

Understanding the dynamics of invasive species in Morshi Taluka is crucial for informing conservation and management efforts aimed at preserving native biodiversity and ecosystem integrity. By assessing the current status of invasive species and their interactions with native fish fauna, this study aims to provide valuable insights into the ecological dynamics of freshwater ecosystems in the region.

The findings of this research will not only contribute to the scientific understanding of invasive species ecology but also have practical implications for the sustainable management of freshwater resources in Morshi Taluka and similar ecosystems. Effective conservation strategies are essential to mitigate the impacts of invasive species and ensure the long-term health and resilience of native fish communities and their associated habitats.

The specific focus of the study is Morshi Taluka, situated in the Amravati District of Maharashtra, India. Morshi Taluka represents a microcosm of rural life in Maharashtra, offering a rich tapestry of cultural, social, economic, and environmental dynamics for exploration and analysis. With its unique blend of agricultural heritage, traditional practices, and contemporary challenges, Morshi Taluka serves as a compelling case study for researchers interested in understanding rural development, resource management, livelihood strategies, and community resilience in the context of India's diverse socio-economic landscape. Through in-depth examination and empirical research, the study aims to shed light on the complexities and nuances of rural life in Morshi Taluka, contributing valuable insights to academic scholarship, policy-making, and development interventions aimed at fostering sustainable growth and equitable progress in rural India.

Research Objectives:

1) To assess the socio-economic status of households in Morshi Taluka, including income levels, education, employment patterns, and access to basic amenities.

2) To investigate the agricultural practices and land-use patterns prevalent in Morshi Taluka, analyzing cropping patterns, irrigation methods, and agricultural productivity.

3) To examine the impact of government policies and development interventions on the livelihoods and well-being of the rural population in Morshi Taluka.

4) To explore the socio-cultural dynamics within the community, including social organization, traditional customs, and community cohesion.

5) To identify challenges and opportunities for sustainable development in Morshi Taluka, with a focus on environmental sustainability, resource management, and climate resilience.

Hypothesis:

1) Government policies and development interventions have a significant impact on the socio-economic status and well-being of households in Morshi Taluka.

2) Agricultural productivity in Morshi Taluka is influenced by factors such as landholding size, access to irrigation, and adoption of modern farming techniques.

3) Socio-cultural factors play a crucial role in shaping community resilience and adaptive capacities in the face of socio-economic and environmental challenges.

4) There is a correlation between access to education and employment opportunities, with higher levels of education leading to increased economic prosperity and social mobility in Morshi Taluka.

5) Environmental degradation poses a significant threat to sustainable development in Morshi Taluka, necessitating urgent action to promote conservation and sustainable resource management practices.

6) Invasive species in freshwater ecosystems, especially those pertaining to fish fauna, have garnered significant attention due to their detrimental impacts on native biodiversity, ecosystem dynamics, and socio-economic activities

Introduction and Spread: Many studies have investigated the pathways and mechanisms through which invasive fish species are introduced and spread in freshwater ecosystems. These pathways often include accidental or intentional introductions by humans, such as releases from aquariums or deliberate stocking for sport fishing or aquaculture purposes.

1) **Ecological Impacts:** Research has documented the ecological impacts of invasive fish species on native fauna and ecosystems. Invasive fish often outcompete native species for resources such as food and habitat, leading to declines in native populations. They can also alter trophic dynamics and disrupt food webs, ultimately affecting ecosystem stability and function.

2) **Economic Consequences**: The economic impacts of invasive fish species in freshwater ecosystems are also well-documented. These species can cause significant damage to commercial and recreational fisheries, leading to economic losses for industries reliant on freshwater resources. Additionally, control and management efforts for invasive species incur substantial costs for government agencies and stakeholders.

3) **Management Strategies**: Various management strategies have been proposed and implemented to control invasive fish species in freshwater ecosystems. These strategies include physical removal methods, such as electrofishing or netting, as well as chemical and biological control methods. However, the effectiveness of these strategies can vary depending on factors such as the species involved, the ecosystem's characteristics, and available resources.

4) **Risk assessment and Prevention**: Risk assessment frameworks have been developed to evaluate the potential for introducing and spreading invasive fish species in freshwater ecosystems. These frameworks consider factors such as species biology, ecological traits, and environmental suitability to identify species with high invasion risk. Prevention measures, such as regulations on the trade and transport of live aquatic organisms, are also crucial for reducing the likelihood of future invasions.

5) **Climate Change Interactions**: Some studies have explored the interactions between invasive fish species and climate change in freshwater ecosystems. Climate change can influence the distribution and abundance of invasive species by altering environmental conditions such as temperature, precipitation, and water flow regimes. Understanding these interactions is essential for predicting future invasions and informing adaptive management strategies.
6) Overall, the literature on invasive fish species in freshwater ecosystems highlights the need for interdisciplinary research, effective management strategies, and international cooperation to address the challenges posed by these invaders and safeguard the ecological and socio-economic integrity of freshwater habitats.

Methodology:

Study Area Description: Morshi Taluka is located in the Amravati District of Maharashtra, India. Situated in the Vidarbha region, Morshi Taluka encompasses a diverse range of landscapes, including agricultural fields, forests, water bodies, and settlements. The taluka is characterized by its semi-arid climate, with hot summers and mild winters, and receives most of its rainfall during the monsoon season.

Surrounding Environment:

1) **Geography:** Morshi Taluka is predominantly flat, with occasional undulating terrain. It is intersected by small rivers, streams, and irrigation canals that are vital for agriculture. The region is also dotted with small hills and hillocks, offering scenic views and potential biodiversity hotspots.
2) **Vegetation:** The vegetation in Morshi Taluka varies depending on factors such as soil type, water availability, and human activities. Natural vegetation includes dry deciduous forests, scrublands, and grasslands. However, extensive agricultural activities have led to the conversion of large areas of natural habitat into croplands, orchards, and plantations.
3) **Water Bodies**: Morshi Taluka is home to several water bodies, including ponds, lakes, and reservoirs. These water bodies serve multiple purposes, including irrigation, drinking water supply, and fisheries. However, they also face challenges such as pollution, siltation, and encroachment, which threaten their ecological integrity and water quality.
4) Human settlements Human settlements in Morshi Taluka range from small rural villages to larger towns and administrative centers. Agriculture is the primary livelihood for a significant portion of the population, with crops such as cotton, soybean, wheat, and pulses being cultivated. Livestock rearing, dairy farming, and small-scale industries are also common economic activities.
5) **Biodiversity:** The biodiversity of Morshi Taluka is influenced by its diverse habitats and human activities. While some areas support rich biodiversity, including endemic plant species and wildlife such as birds, mammals, and reptiles, others have experienced habitat degradation and species loss due to deforestation, land conversion, and other anthropogenic pressures.

Overall, Morshi Taluka and its surrounding environment present a complex socio-ecological system shaped by interactions between natural processes and human activities. Understanding the dynamics of this system is essential for effective management and sustainable development in the region.

Methods Used for Data Collection:

Sampling Techniques:

1) **Random Sampling**: A random sampling approach may be employed to ensure representative data collection across different locations within Morshi Taluka. Randomly selecting sample sites helps reduce bias and ensures that findings are applicable to the entire area.
2) **Stratified sampling:** Stratified sampling may also be used to account for the heterogeneity of habitats within Morshi Taluka. The taluka may be divided into strata based on factors such as land use, vegetation type, or proximity to water bodies, and samples are then randomly selected from each stratum to ensure proportional representation.

Data Collection:

1) **Field Surveys**: Field surveys are conducted to collect primary data on various parameters such as species composition, abundance, habitat characteristics, and environmental variables. Trained researchers or field assistants may systematically collect data using standardized protocols.
2) **Questionnaires and Interviews:** Surveys, questionnaires, and interviews may be administered to local communities, stakeholders, and experts to gather information on socio-economic aspects, traditional knowledge, and perceptions related to invasive species and their impacts.

Data Analysis:

1) **Statastical Analysis:** Statistical techniques such as descriptive statistics, correlation analysis, and multivariate analysis may be used to analyze quantitative data collected during field surveys. These analyses help identify patterns, relationships, and trends in species distribution and abundance.
2) **GIS and Remote Sensing:** Geographic Information Systems (GIS) and remote sensing tools may be utilized to analyze spatial data and map the distribution of invasive species, habitat

characteristics, and land use patterns. GIS-based spatial analysis techniques can provide valuable insights into the spatial extent and dynamics of invasive species infestations.

3) **Qualitative Analysis:** Qualitative data collected through interviews and open-ended survey questions may be analyzed using thematic analysis or content analysis to identify recurring themes, patterns, and insights related to community perceptions, attitudes, and behaviors towards invasive species.

Identification of Invasive Species:

1) **Taxonomic Identification:** Trained experts may conduct taxonomic identification of invasive species encountered during field surveys based on morphological characteristics, behavior, and ecological traits. Field guides, keys, and reference collections may be used to assist in species identification.
2) **DNA Barcoding:** In cases where species identification based on morphology alone is challenging, DNA barcoding techniques may be employed to confirm species identity. DNA barcoding involves sequencing a shortstandardized region of DNA to identify species based on genetic differences.
3) Overall, a combination of quantitative and qualitative methods, along with appropriate sampling techniques and data analysis approaches, is essential for comprehensive data collection and analysis in studies focusing on invasive species in Morshi Taluka or similar ecosystems.

Observed Impacts on Native Fish Fauna:

1) **Competition for Resources:**
The presence of invasive fish species such as the African catfish and common carp has led to increased competition for resources such as food and habitat. These invasive species often outcompete native fish species for available resources, leading to declines in native populations.
2) **Predation:** Invasive fish species may also prey on native fish fauna, especially juvenile individuals. This predation pressure can further exacerbate declines in native fish populations, particularly for species with limited reproductive rates or vulnerable life stages.
3) **Habitat Alteration**: Invasive fish species may alter habitat characteristics through behaviors such as nest building, substrate disturbance, or vegetation removal. These habitat alterations can disrupt the ecological balance and suitability for native fish species, leading to changes in species composition and distribution.
4) **Genetic Introgression**: Hybridization between invasive and native fish species can result in genetic introgression, leading to loss of genetic diversity and potential fitness disadvantages for native populations. This genetic assimilation can further weaken native species' ability to adapt to changing environmental conditions.
5) **Indirect Effects:** Invasive fish species can also have indirect effects on native fish fauna by altering food webs, nutrient cycling, and ecosystem dynamics. These indirect effects can cascade through the ecosystem, leading to complex and sometimes unpredictable impacts on native species and Confirmation of Invasive Species
6) **Presence and Abundance:** The findings confirm the presence and widespread distribution of invasive species in Morshi Taluka, as hypothesized. The study successfully identified invasive fish species such as the African catfish, common carp, Nile tilapia, and invasive aquatic plants like water hyacinth. The abundance and distribution patterns observed align with the hypothesis that invasive species would be prevalent in freshwater habitats throughout the taluka.

Impact on Native Fish Fauna: The observed impacts on native fish fauna support the hypothesis that invasive species would negatively affect native biodiversity. Competition for resources, predation, habitat alteration, and genetic introgression were identified as significant threats to native fish populations. These findings underscore the importance of understanding and managing invasive species to mitigate their impacts on native fauna and preserve ecosystem integrity.

1) **Socio-economic Implications**: The study findings highlight the socio-economic implications of invasive species presence in Morshi Taluka, confirming the hypothesis that invasive species would have adverse effects on local communities and livelihoods. Competition with native species, interference with irrigation activities, and reduction in agricultural productivity underscore the need for integrated management approaches to address the socio-economic challenges posed by invasive species.
2) **Management Challenges and Recommendations**: The study identifies various management challenges, including limited awareness, resources, and coordination, which hinder effective invasive species management in Morshi Taluka. These challenges align with the hypothesis that managing invasive species would be complex and require concerted efforts from multiple stakeholders. The study recommends integrated management approaches involving local communities, government agencies, and stakeholders to address these challenges and mitigate the spread and impact of invasive species.

In conclusion, the interpretation of the results in the context of the research objectives and hypotheses confirms the presence, impacts, and management challenges associated with invasive species in Morshi Taluka. The findings underscore the importance of understanding the dynamics of invasive species and implementing effective management strategies to conserve native biodiversity, protect ecosystem services, and sustain livelihoods in freshwater ecosystems.Top of Form

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Exploring Marginalization of Women in Mahesh Dattani's *Bravely Fought the Queen*

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Abstract:

Marginalization of all kinds is a major issue in Mahesh Dattani's plays. His subjects come from the intricate web of contemporary Indian society. Dattani's interest in oppressed and marginalized groups who persisted behind the curtain of mainstream society was sparked by the global postcolonial discourses of the 1980s and 1990s. Until his plays brought the hidden and muted problems of Indian society to the forefront of the Indian stage, their voices had been unheard. This essay explores the various facets of oppressed women, especially in his play *Bravely Fought the Queen*. Upon closely examining Dattani's plays, we are left with the idea that women emerge as influential members of society despite being doubly dispossessed. The female characters in this play have been able to shock and astound both readers and viewers with their courageous resistance to injustice. Every individual in the drama is incredibly common in our society, and because their problems are forbidden in our culture, we ignore them, and their problems go unnoticed. Audiences have been forced to reconsider peripheral issues, and their attitudes toward women have changed as a result of Dattani's skilful staging, which often combines the interior and exterior into a single seamless piece and his powerful portrayal of characters with his intensely honest observation and perceptive scrutinizer eyes.

Keywords: Gender discrimination, Inner conflict, Homosexuality, Subaltern, Taboo.

Introduction:

Mahesh Dattani is known for penning down social issues within the context of contemporary India. Even though India has grown to be the world's largest democracy and economy, Mahesh Dattani illustrates the different aspects of Indian women's marginalization in the modern era. From the enviable position of women during the Rig Vedic period to the current state of marginalization, Dattani closely allied to the issues of women is his concern for a taboo subject like alternate sexual behaviour or homosexuality on the one hand and the other; he deals with the confrontational sexual behaviour of women as a major concern against the backdrop of gender discrimination in general on stage in which the interior and the exterior sinks into one. By placing the peripheral at the centre of the stage and utilizing conversation, costumes, themes, spectacles, and problematization of topics, Dattani aims to unite the audience and the performers on stage. Despite their strong Indian heritage, issues such as the deplorable state of homosexuals, the marginalization of women, and gender discrimination are still viewed as foreign. Thus, Dattani showed bravery by raising these concerns.

Robert Perk's (1928) analysis of the reasons behind and effects of human movement served as the inspiration for the term "marginality," which has since acquired a variety of meanings and references. The term "marginality" has been used in at least three different ways in the sociological literature since 1928 (Billson, n.d.). These are referred to as structural marginality, social role marginality, and cultural marginality. All three of these elements are assumed collectively in varied degrees in Dattani's portrayal of women characters as marginal, with the exception that it is more in line with the social role of marginality. It happens when someone is excluded from a positive reference group or mainstream social groupings due to factors such as gender, class, or a profession that is viewed as inferior by society, thereby making them marginal.

The subalternity of the lot and the marginality of Indian women are closely related in Dattani's play. This is because the dramas echo the voices of Indian scholars who have voiced the perspectives of the subaltern in journal articles published in Oxford University Press during the 1980s. The authors' perspective is one of reclaiming history to support the voiceless and marginalized. In contrast to Gramisci's concept of subalternity, which was the outcome of hegemony, scholars such as Rama Chandra Guha and G C Spivak concentrated their research on the subaltern condition of Indian people on the grounds of class, gender, race, culture, and language that might have been affected by the dominant politics. The elitist and Eurocentric discourses have both been debunked, and a different approach is proposed to find the voices of the subaltern. The criticism of subaltern studies or cultural discourse by Gayatri Chakravorty Spivak's *Critique on Postcolonial Reason* examines how women in particular and members of the underclass as a whole are neglected. Similar to this, Dattani has made an effort to offer a different perspective or forum by depicting the female characters in his drama in such a realistic way that readers and viewers are given a unique perspective on several levels of marginality. His work generally serves as a voice for marginalized groups, including women, to address the imbalance that has been created in Indian society. Both before and after independence, India saw significant socio-political transformation, but the status of women barely changed. They remained marginal on several fronts. The theoretical foundation for the subordination of women or gender discrimination is based on the binary opposition of class, caste, gender, and other social categories in any given society.

In the case of Indian society, Dattani raises this same question through peripheral issues, namely whether or not a woman can speak. Except for a small percentage of women who dare to speak, the majority of women are still unable to voice their opinions due to societal restrictions. Dattani has the bravery to address this issue fully. Almost all of his plays depict the subordination or subjugation of women by bringing up seemingly insignificant issues, issues of suppressed subjectivities, or peripheral issues through brief exchanges between the dramatic personae, stage setting, lighting, and music, with the additional help of everyday vocabulary and an indigenous English dialect. In this way, the relatively unexplored subjects could be thrust to the forefront among themes of alternative sexuality, gender discrimination, minorities being abused, or conflicts resulting from differences in class, religion, and so forth. The drama under discussion here, with a few notable exceptions that attest to Dattani's creative brilliance and his sincere desire to establish an equitable society, represents the marginalization of women generally.

Mahesh Dattani's *Bravely Fought the Queen (1991)* demonstrated that Indian women's identity is reliant on their husbands; therefore, preserving their individuality becomes a difficult decision for them. Lalitha learned her identification from her husband because, rather than asking her identity, the boss's wife asked her whose wife she was. "… You may be somebody's wife. What I mean is your husband- I know- is working for my husband" (234). She is made to feel inferior twice: as a wife and as a subordinate in class. In the drama, the Trivedi brothers, Jiten and Nitin, own an advertising company. They are at the highest ladder of society as males and as employers of Sridhar, their accountant and Lalitha's husband. The wives of the Trivedi brothers, Dolly and Alka, are shown in varying social positions in the drama. They are superior as wives of employer brothers but marginal as women in the same place, and it is made clear when Dolly boasts of twin luxurious houses built for the two brothers. However, she felt uneasy when asked about Alka and her share of the homes because she is aware of the uncertainty surrounding women's rights in a society where men predominate. Here, Dattani uses the fluctuating centre-periphery motions of these two groups of women to illustrate how marginality is changing. There are subtle undertones of class consciousness in the sharp exchange between Lalitha and Dolly, as one claims to be better than the other based on the divide between the working class and the capitalist class. These two women's tones and conversation convey a disparity in social standing and class. Lalitha is dropped off here because her husband is engaged to Jiten, while Dolly expects her to return home. Lalitha is prepared to go, but she is afraid of crimes against women, particularly rape, so she cannot take the chance of driving to her home by auto on the outskirts of the city.

The Trivedi brothers wanted Lalitha to talk about the mask ball as part of their advertising requirement. However, Dolly doesn't think she's suitable for this because she comes from a lower class; instead, she asks her to attend to the crazy patient Baa. It depicts a traditional Indian business family, with the wife staying at home, bored and lonely, and driven by ennui and tedium to swallow down pegs to navigate the state of vacuum in their solitary existence. Even though Dolly and Alka belong to a higher class than Lalitha, their situation nonetheless marginalizes them just as much. Baa, Dolly's oppressive mother-in-law, is also a woman, but she is far too vicious for Dolly, and Alka, frustrated by her harshness, is unable to respect her. The abrupt reply to Lalitha's question about her health makes this obvious. "She is alive" (239).

Lalitha is a lower-middle-class woman whose persona is meant to represent the struggles and particular characteristics of the class; therefore, she is not allowed to enjoy the luxury of drinking rum or soft beverages. To keep up with society and augment her husband's salary, she turns to a variety of hobbies, like writing columns on women, tending to bonsai plants, and dabbling in creative writing. She continues to save for a down payment on an HDFC loan so she can buy her apartment. In an Indian setting, bonsai symbolizes women in general and lower-middle-class women in particular. Lalitha is not allowed to be ostentatious, nor is she able to embrace the increasingly prevalent mixed society of upper-class and middle-class metropolitan women flirting in style, sipping rum, going on pricey dates, or hosting lavish parties. She avoids wearing makeup, making big announcements, showing off, and boasting; instead, she would rather keep her desires in check, like a bonsai: “The trick is to talk about things you know a lot about. That’s what I do. Like I always talk about my bonsai, given half a chance (248)”. Her spouse occasionally feels that she is crazy for spending so much time tending to the bonsai rather than going on a recreational excursion. She is raised with this mindset due to the cultural transmission of her class. When she emerged victorious in a lottery against a made-for-each-other competition, it is evident that, as a bonsai girl determined to control her impulses and resist desires and even the little joys in life, she would have rather have cash than two complimentary tickets to Goa.

Another indication of restraint is the bonsai. Dolly and Alka lead sophisticated modern lives that include going out, exploring new places by car, participating in club culture, and more. Husbands who are business owners are too busy to give them the attention they need. Frequently, they depress their spouses by calling off any planned excursion. On one occasion, when a phone call from them comes for being late in reaching home, Nitin looks at the bonsai angrily, suggesting that the women should exercise restraint and pruning. One of the central themes of the drama is disagreements over what a man and a woman should expect from a marriage, and the destructive nature of worldly desire can lead to marital unhappiness. Husbands argue over trivial matters because of their indifference and insensitivity to their wives’ demands for leisure. Their mother-in-law Baa is a constant source of nag-wart. When they were in a bad mood, Baa would interrupt them with piercing screams or the calling bell that would finally break Dolly’s patience: “God should fix her arms as well so she can’t ring that wretched bell! Two things she fights us all with. That bell and her loud mouth! (249)

When traditional and modern societies are compared, it becomes clear that women are becoming more and more involved in urban middle-class society’s distinct tilt toward consumerism, gossip, rum, gin, Pepsi, partying, etc. Alka developed a habit of drinking alcohol as a result of consumerist culture and fashion. Once, during dinner, she lost her temper, mistreated her mother-in-law in front of her husband, and was banished from the house for a fortnight. Twice, her brother Prafull begged and pleaded with Nitin to take her back. It was the height of humiliation for Praful, Dolly, and the whole family. Flirting with their chefs or staff is a common tactic used by bored ladies. Dolly let the 19-year-old boy, Kanhaia, ravish her gorgeous curves; she relished the youthful touch, the close embrace, and the warmth of his body and soul in the background of Thumri’s mellow music. “The Thumri plays. And it ends. Another one plays. I forget when that ends, and a new one begins! All I’m aware of are two tight arms around me and the beautiful sound of the heartbeat of a warm, gentle soul” (262). It was her covert meeting with the servant in the home’s kitchen while Alka was drunk with alcohol.

Sharp social divisions, developing Indian society, and the competing values of a business family are the main causes of the drama’s wives’ enslavement and isolation. The Trivedi brothers are prepared to take advantage of their brother-in-law for contributing to their advertising business. In the present campaign, women are portrayed as sex objects in an advertisement for a brand of women’s underwear called Re Va Tee, which goes against the idea of sobriety in India that: “a woman exists only to please a man… No woman waits for her husband to arrive to change into a frilly overpriced nightie and jump into bed… ” (279)

In Dattani’s drama, Indian women refuse to submit to their controlling husbands or society at large. Alka exemplifies the spirit of the queen in her valiant struggle against the despotic husband and mother-in-law. Alka is one of the few women who could speak up and fight back heroically. Dolly wants to play the part of tawaifs, but Alka wants to be Jhansi Ki Rani in the masked ball. Her rainy dance symbolizes Alka’s release from the bonds of a loveless marriage. Rain also represents the tears that a lady has shed throughout her life and represents her newfound strength to fight back like a courageous queen.

The mother-in-law, Baa, causes pain to the daughters-in-law by allowing the same old patriarchal dominance to affect them. Even in her frail old age, she was unable to forget the horror of her husband’s terrible treatment of her. In her early years, she experienced severe dominance from her husband, who physically abused her and discouraged her from pursuing her love of music. The sons were also not spared from ill-treatment. Jiten became a monster as a result of socialization, but Nitin was gay from the beginning. Baa could see her despotic husband’s visage in Jiten. The mother’s love is directed toward the younger Nitin, from whom she seeks the support, love, and care that her husband deprived her of. In Lawrence’s *Sons and Lovers*, Mrs Morel’s unhappy marriage to a drinking miner draws her attention to her son, Paul. In turn, Paul fails in his love for Miriam Leiver because his mind is preoccupied with the reciprocal love of his mother. Freudian theories of the Oedipus complex apply here as Nitin felt his Oedipus pull toward his mother. Nitin is drawn into Baa’s embrace to the point where he becomes gay. Moreover, Baa’s possessiveness keeps Nitin from becoming emotionally attached to Alka. As a woman, she symbolizes the male control of her husband, which he reacted to with both of her sons, speeding up the process of the family's total disintegration when Dolly chose to leave, and Alka passed away tragically. She came from a generation where women experienced a great deal of unfairness and harsh treatment. \

There have been times when a large number of people have experienced mental abnormalities or developed psychiatric disorders that they were unaware of. In her delusional state of recall, she revisits her early years and speaks to Nitin as a young child. She wants him to despise his dad. She is not at peace until Nitin grants his mother's suppressed desires. Thus, Dattani demonstrates that repression, torture, or injustice—which, while seemingly insignificant to many, has a profound effect on both the individual and society—are the underlying causes of the disease that manifests as seemingly contradictory behaviour or aberration in the normal Indian woman.

Although Dattani's topics vary slightly from play to play, they all essentially belong to the same marginalization group. Through the protagonists in each case, an ontological question about being and becoming has been raised. Lata and Alka wondered what they were becoming. Lata crossed the boundary. Tara, the protagonist of Mahesh Dattani's play *Tara*, tragically died, sparking a discussion about whether or not a girl kid needs to be executed repeatedly to demonstrate a man's dominance. Therefore, there is a strong desire to change the reality. Dattani has introduced parallel minor characters, such as Lalitha in *Bravely Fought the Queen*, or utilized certain popular dramatic devices, such as bonsai, as a metaphor for women. Dattani used Lalitha as a pun, or humorous relief, to reveal the characters' dark corners in light of their social exclusion; as a result, the problems of marginalization and neglect of women persist in Indian society.

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Teaching Strategies for Education

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Abstract:

By implementing various innovative teaching methodologies in routine teaching, instil new ideas in students about pursuing higher education; enhance teaching and learning methods between teachers and students; and help students develop a research temperament that will enable them to become self-reliant and independent and face future challenges with courage and confidence.

Keywords: Teaching strategies, Students learnings

Introduction:

Across the board, education is vital and important for building a skilled labour force. The traditional method of instruction for many years has been the use of textbooks; however, the advent and application of tools for assessing teaching efficacy has shown that most students do not retain the course material to the required level. Because of this, a lot of scholars have concentrated on developing and enhancing the currently utilised teaching techniques as well as introducing and experimenting with novel ones. Miserably, scientists have not been able to come to a consensus over the efficacy of the new teaching techniques; as a result, more research is necessary (1, 3, 4, 5, 6).

Based on big data analysis and intelligent processing, the deep learning-based teaching strategy system analyses, students behaviour and personality traits as they learn the concept and provides tailored recommendations based on the systems intelligent guidance function. In order to create a model of learning behaviour and experience, this system uses the most basic data about the students and their individual learning environments as the foundation for deep exploration. Additionally, by using personalised learning condition analysis, it can reignite the students enthusiasm for learning. The recommendation system for online learning and teaching can suggest more in-depth instructional strategies and materials to students and particular classes, as well as produce an understandable visual representation of how learning has changed since the invention of various technologies and Ideas (7,8,9).

Active learning is a method to education where teachers support students meaningful engagement with the material by acting as facilitators of learning instead of lecturers. Strategies such as student collaboration, reflection, discovery, and critical thinking are all part of active learning since they involve students doing things and thinking about the things they are doing. Engaging students in meaningful interactions with content and stimulating their own creative thinking about it leads to deeper learning in active learning environments, where students become partners in the teaching and learning process. Because it stresses collaboration, gives each group member a sense of accountability, and improves cognitive function, this teaching approach is thought to be more beneficial than passive education. Active learning has been shown to be beneficial, and educators have written extensively about how this pedagogical approach can be used in a variety of contexts. It has been demonstrated that the utilisation of active learning strategies by faculty, especially collaborative student activity followed by faculty explanation, improves student learning more than the use of either strategy alone. Active learning methodology is required in many health professions degree programmes since it has been shown to be beneficial in helping students build higher order thinking skills. Benefits of utilising a variety of active learning pedagogies to improve learning and accomplish other academic goals, such as fostering more teamwork and improving verbal communication abilities (10, 11).

Methodology: Various techniques and methods applied for effective teaching along with their consequences are mentioned in result and discussion.

Result and Discussion:

The following cutting-edge and successful teaching strategies from all the disciplines are chosen to address the issue raised in the introduction (2, 3, 4, 5).

Study by Own (Self-Learning):
Learning carried out independently, without the assistance of an instructor. Gaining information, drive, ambition and competence without direction. Self-learning is defined as studying for the purpose of one's own knowledge by independent study, reading books and articles, or using other resources.

Brainstorming and Design Thinking:

A creative approach to problem resolution is design thinking. Through an iterative process called "Design Thinking," we try to grasp the user, assume difficulties, and reframe issues in order to find different approaches and fixes that might not be immediately obvious from our current state of knowledge. Simultaneously, Design Thinking offers a problem-solving methodology centred on solutions. It is a manner of working and thinking in addition to a selection of practical and practical knowledge. The fundamental idea of design thinking is that students acquire knowledge and develop their critical thinking skills by being exposed to real-world issues or case studies and by utilising various techniques such as group discussions and brainstorming. The pertinent instance is chosen for a learning outcome, and cases are chosen for their potential to benefit theoretical outcomes.

Case Studies: It is very creative and important way of teaching and making the concept more clear and understandable with the practical example or practical explanation with the occurred incidents in reality.

Comprehensive Content Analyses: One research technique for finding patterns in recorded communication is content analysis. Methodically gathering of information from a collection of texts are required—which may be written, spoken, or visual—in order to perform content analysis.

Examples include: books, periodicals, and magazines, interviews and speeches, posts on social media and web content, pictures and videos

There are two types of content analysis: i) Counting and measuring ii) Interpreting and understanding.

Flipped Classroom:

When the classroom is flipped, activities that would typically take place inside it suddenly occur outside of it, and vice versa.In reality, the flipped classroom approach involves posting course materials and theoretical information online for students to study at their convenience.

Gamification:

The use of game-style features to encourage participation in non-gaming contexts and activities is known as gamification. Gamification takes advantage of people's innate motivations for generosity, teamwork, achievement, and rivalry. Real-world applications of game design techniques, such as badges, "leveling-up," and rewarding users for accomplishments, can inspire people to reach their objectives and improve performance.

Invigorating Learning Environment:

Well-designed, entertaining, and stimulating learning environments help students think and learn more effectively. It is unrealistic to expect young children, in particular, to learn by sitting down all day. They will be inspired to learn more about the subject and be able to explore in such an imaginative and fascinating setting. Teachers benefit from an environment that has a positive effect on the students.

Social Media:

Websites and programmes that are made to facilitate the effective and instantaneous exchange of material are referred to as social media. Websites and applications that emphasise community-based input, communication, engagement, content sharing, and collaboration are collectively referred to as social media. A variety of social media platforms are often devoted to social networking, forums, social bookmarking, and social curating.

Accept New Concepts: Having an open mind will enable you to develop novel teaching strategies. Even though most of us are open-minded, there are moments when we reject novel concepts. It should not be done as a teacher; instead, make an effort to welcome new concepts, even if they seem unusual at first.

Documentary: A movie, TV show, or radio show that provides details and facts about a subject will come under documentary.

Collaborating Method in Software Testing: This strategy involves exchanging problem-solving skills, learning more about the application being tested, and gaining more expertise and experience in test design.

Research Project, Presentation, and Publication:

Students can do original, cutting-edge research under the supervision of an instructor on current subjects in any discipline. Students can participate in a variety of research-related activities, such as power point presentations for papers, poster presentations at the Avishkar Research Convention, scientific days, and other seminars and conferences run by various colleges under the guidance of lecturers. Papers may also be published with the names of the students as an author; it is a great source of inspiration for the learners.

Industrial Visit / Excursion: Educational travels give students the chance to hone their interpersonal, organisational, and civic involvement abilities. Field trips provide a learning experience that cannot be replicated in a classroom.

New Practicals:

Alternative to those listed in the curriculum, new practicals can be thought of as creative approaches to teaching students about other subjects.

Certificate Programmes: The secret to releasing the potential for a brighter future is education. Next generation or the next learners or simply the learners can be motivated with the help of free online education certificate programmes. This will teach about education psychology, which is essential for enhancing instruction and carrying out teaching responsibilities.

Google Classroom: This software was created by Google specifically to help educational institutions run virtual classrooms. It is an organised tool that helps teachers organise their assignments and build relationships with their pupils. Teachers can simply share their course materials with students by using the classroom.

Personal Website: Instructors are able to create their own websites and include information about any online certification on website. Courses and other material pertaining to improving education for students benefit is readily available on the personal website.

Google Doc: Front parties may create and share online Google documents quickly and easily. This is a method that works both ways: students can email questions or materials to the teacher, and teachers can transmit any instructional materials or other stuff pertaining to extracurricular activities immediately by typing on a Google Doc.

Conclusion:

When students engage with and reflect on their own learning process, they learn more effectively, this is one of the significant method of evaluating students capabilities. Using pronouns and emotive language, open-ended course evaluation questions is associated with a greater sense of student ownership of their learning. This is facilitated by excellent teachers and is one of the psychological elements that affects pupils retention. In order to get the information required for the evaluation of the implemented instructional strategies, the majority of the researchers sent out surveys and questionnaires. The results of these techniques could significantly aid professors, lecturers, and instructors in adopting the most effective teaching styles, based on their course learning objectives (2,3). There are different methodology used by Teachers for making teaching very effective and interesting. Various teaching strategies are utilized and now it is made mandatory also to teach in such a way so that the teaching will be a interacting and informative. As and when only simple methods of teaching like using only chalk and board are applied then sometime the learners become boring and do not sit in the classroom lecture with full enthusiasm or with full concentration, therefore there are many techniques of teaching and learning mentioned in result and discussion part of this paper are applied and then the learners enjoy the teaching method and get involved in learning all the concept delivered in the classroom. Teaching should not be only one way process, it always be a two way process that is teacher and learner.The teacher is also a learners because learning is a continuous process and it never end and it also not get influenced by time,age and economical conditions because if the learning intension is there in the heart of learners then anyhow all concepts of teaching can be learned. Always the teachers try to make its teaching in a more better and understandable way so that students concept will become clear about the taught topics.

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A Conceptual Framework for the Essential Role of Leadership in Organizational Development

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Abstract:

The diverse function that leadership plays in organizational growth is examined in this conceptual work. The role of leadership in affecting an organization's culture, performance, and ability to adapt in changing circumstances is becoming more widely acknowledged. This paper explores the several aspects of leadership that support organizational development, based on both empirical data and theoretical understanding. It looks at how tactics, behaviours, and styles of leadership affect innovation, sustainability, and organizational change. It also looks at how leaders are becoming more and more important in creating inclusive cultures, developing talent, and promoting constant progress. This paper seeks to improve our understanding of the intricate relationship between leadership and organizational development by integrating the body of existing literature and putting forth a conceptual framework. It will provide valuable insights for both researchers and practitioners.

Keywords: Inclusive culture, talent management, leadership, organizational development, change management, and innovation.

Introduction:

The continuous process of organizational development is to increase an organization's efficacy and capacity to accomplish its objectives in a setting that is changing quickly. This process is greatly aided by leadership, which also helps organizations expand, overcome obstacles, and create an environment that encourages innovation and adaptation. With the complexity of globalization, technology, and changing market dynamics posing challenges to companies, leadership plays an ever-more-important role in spearheading organizational progress. In order to clarify the important mechanisms via which leadership affects organizational results, this research aims to conceptualize the complex relationship between organizational development and leadership. Effective leadership is crucial for promoting internal cohesiveness and alignment inside organizations in addition to overcoming external problems. As architects of vision, leaders motivate their teams to unite around common objectives and principles. They provide clarity in the face of ambiguity and uncertainty by fostering a feeling of direction and purpose. Furthermore, leadership shapes the norms, attitudes, and behaviors that support the effectiveness of an organization. This study attempts to provide insights into how leaders can proactively drive organizational development in a constantly changing landscape by examining the complex interactions between leadership behaviors, organizational culture, and performance outcomes.

Research Objectives:

1) To study leadership.
2) To study impact of leadership on organizational development.

Research Methodology:

The present paper is completely conceptual in nature; the use of secondary data is made to write the research paper. Use of various secondary sources for data collection are made like scholarly articles, research journals, past available literature, blogs etc.

Leadership Attitudes and Conduct:

There is a wide range of approaches to leadership styles, from transactional to transformational, dictatorial to democratic. The implications of each style for organizational development are different. While centralized decision-making under autocratic leadership can hasten short-term changes, it frequently stifles employee participation and innovation. On the other hand, collaborative, innovative, and adaptable cultures are fostered by transformational leadership, which empowers and inspires followers and establishes the groundwork for long-term organizational growth. In addition, theories of situational leadership highlight the significance of adaptive leadership behaviors that are adapted to certain circumstances. These theories emphasize that leaders must be flexible in adapting their style to suit the needs of the environment and the level of maturity of their team members. Furthermore, democratic leadership sticks out among other leadership philosophies due to its focus on collaborative problem-solving and inclusive procedures. Democratic leaders seek out team members' opinions, promote candid communication, and assist in reaching consensus. Employees who feel appreciated and empowered to participate in decision-making processes are more likely to feel a feeling of ownership and commitment as a result of this strategy. As a result, democratic leadership frequently results in increased employee motivation, engagement, and satisfaction—all critical components for organizational growth.

Conversely, transactional leadership relies on a performance-based system of incentives and penalties. Transactional leaders define performance measurements, give feedback according to predefined standards, and set clear expectations. Although transactional leadership can promote accountability and efficiency in daily operations, its potential to promote long-term organizational development may be limited by its emphasis on transactional transactions. Rigid incentives and structures may make employees feel limited, which could stifle their creativity and innovation.

On the other hand, transformational leadership goes beyond simple transactional interactions by motivating followers to put aside their personal interests in favor of a greater group goal. A captivating vision is developed by transformational leaders, who then convey it with fervor and conviction and give staff members the tools they need to help bring it to life. Transformational leaders stimulate intrinsic drive and creativity, which propels organizational change and development, by cultivating a feeling of significance and meaning. Their capacity to create a culture of creativity, adaptation, and constant growth in their followers fosters confidence, trust, and loyalty—qualities that are critical for organizational success in the fast-paced world of today.

Moreover, theories of situational leadership emphasize the significance of adaptive leadership behaviors that are customized to the unique requirements and obstacles of every circumstance. Situational leaders modify their style of leadership in response to their team members' talents and readiness assessments. For instance, leaders may take a more assertive stance to offer stability and clarity during times of crisis or uncertainty. On the other hand, at times of stability or when working with highly competent and driven people, leaders could take on a more delegative or encouraging style in order to promote empowerment and autonomy. Situational leaders are able to effectively traverse difficult challenges and propel organizational development by flexibly changing their leadership approach to the needs of the scenario and the developmental stage of their team members.

Leadership Techniques for Organizational Transformation:

Managing through times of change, whether in reaction to internal demands or external forces, is a common task of organizational development. It takes clear vision, effective communication, and stakeholder engagement to lead during these changes. Proactive leadership is critical in communicating the need for change, instilling a sense of urgency, and galvanizing support within the business, according to theories of change management. Leaders also set an example for accepting change, exhibiting resiliency, and encouraging learning from failures. In order to reduce resistance to change and increase organizational agility, leaders should cultivate a culture that values experimentation and continual improvement.

Proactive leadership, encouraging innovation, strong communication, and stakeholder engagement are all essential components of effective leadership techniques for organizational change. In times of change, communication is essential because it fosters understanding, allays fears, and mobilizes support for the measures being offered. The change's justification, possible effects on different stakeholders, and intended future condition of the company must all be clearly communicated by leaders. Leaders may cultivate a sense of ownership and buy-in among employees by involving them in discourse, requesting input, and addressing their concerns in a transparent manner. These factors are crucial for the successful implementation of changes. In addition, incorporating stakeholders in the process of change fosters a common commitment to the corporate goal and improves the quality of decision-making, so enabling more seamless transitions and long-term organizational growth.

Promoting Creativity and Innovation:

Innovation is the engine that propels competitiveness and long-term success in organizations. Fostering a culture of experimentation, risk-taking, and information sharing is a key function of leadership in fostering an environment that is favorable to innovation. It is imperative for leaders to promote variety of opinion, foster interdisciplinary collaboration, and question prevailing beliefs. Furthermore, they are essential in determining priorities, allocating resources, and tearing down obstacles that stand in the way of creativity. Leaders have the ability to stimulate innovation and promote creativity that drives breakthrough discoveries that advance organizational development by promoting psychological safety and recognizing both achievements and failures.

Developing systems for gathering and utilizing ideas from all organizational levels is another aspect of good leadership in promoting innovation and creativity. To encourage the sharing of different viewpoints and fresh insights, leaders can put in place organized procedures like innovation laboratories, idea generation platforms, or cross-functional brainstorming sessions. Leaders show their dedication to innovation and enable staff members to provide their knowledge and creativity by instituting avenues for idea creation and experimentation. In order to support a culture that values and prioritizes innovation, leaders should also acknowledge and promote innovative behaviors. This can be done through official recognition programs, promotions, or other forms of compensation. Through the integration of innovation into the core values and provision of appropriate guidance and support, leaders may foster a dynamic atmosphere that fosters creativity and sustains organizational growth, so giving their firm a competitive edge.

Leadership Development and Talent Management:

Talent acquisition, development, and retention are critical to the long-term viability of a firm. The next generation of leaders, capable of navigating difficult situations and advancing organizational development, is largely dependent on leadership development programs. Tailored to the specific needs and objectives of emerging leaders, effective leadership development efforts include formal training, mentoring, coaching, and experiential learning opportunities. In addition, leaders themselves act as mentors and role models, passing along implicit knowledge and encouraging an environment where learning and growth never stop. Organizations may create a pipeline of competent leaders who can propel organizational progress by investing in talent management and leadership development.

Furthermore, a deliberate strategy to locating, luring, and keeping top talent is necessary for effective talent management in addition to leadership development initiatives. In order to achieve this, talent acquisition tactics must be in line with the long-term objectives and cultural values of the company. Additionally, data-driven insights must be utilized to streamline the hiring process and guarantee a diverse and inclusive workforce. Continuous development and support are essential for optimizing talent once it is on boarded and cultivating an excellence-oriented culture. To expand their perspectives and talents, this may entail offering chances for skill development, career advancement, and cross-functional experiences. Organizations may create a robust and productive workforce that can propel organizational growth and accomplish strategic goals by investing in all-encompassing talent management methods that cover both leadership development and talent acquisition.

Developing Inclusive Societies:

Encouraging diverse, equitable, and inclusive workplace cultures that maximize each person's potential requires inclusive leadership. Diversity, equity, and inclusion (DEI) programs are supported by inclusive leaders, who weave these values across the whole company. They reduce prejudices, actively listen to different points of view, and foster a feeling of community among all staff members. Furthermore, inclusive leaders ensure fair access to opportunities and pave the road for the progress of underprivileged groups. Developing an inclusive culture that values and respects every voice allows leaders to unleash the creativity and brilliance of their staff, which in turn promotes organizational development and resilience.

Continual education and awareness within the organization is a top priority for inclusive leaders, who also advocate diversity, equity, and inclusion programs. By facilitating conversations about privilege, unconscious bias, and systematic injustices, they promote a culture of understanding and compassion. In order to foster meaningful communication and cooperation across divides, inclusive leaders must raise people's knowledge and comprehension of many points of view. In addition, they actively remove obstacles to accessibility and inclusion from the organizational structure, rules, and procedures, working to establish a setting in which every person feels appreciated, respected, and enabled to offer their special skills and viewpoints. Leaders foster a culture that celebrates diversity as a strength, fostering innovation, creativity, and organizational development via their dedication to inclusivity and continual improvement.

Conclusion:

Organizational development is greatly influenced by leadership, which also has an impact on performance, culture, and adaptability. Sustained organizational growth is fueled by effective leaders who create inclusive cultures, encourage innovation, manage change, and inspire vision. Through a comprehensive comprehension of the intricate relationship between leadership and organizational development, entities can utilize leadership as a tactical advantage to prosper in a constantly changing environment. To drive organizational progress and create a better future for all stakeholders, companies must invest in leadership development and cultivate an inclusive leadership culture as they face future challenges.

Furthermore, when the business environment changes, companies need to understand that effective leadership is a dynamic process that requires constant development and adaptation. In order to adapt their talents and strategies to the changing demands of their teams and organizations, leaders must continue to be flexible and sensitive to new trends, opportunities, and difficulties. Furthermore, maintaining an advantage in a dynamic and fiercely competitive economy will need leaders and staff to embrace a culture of ongoing learning and growth. Through the adoption of an innovative, resilient, and inclusive mindset, organizations may effectively leverage the capabilities of their workforce and make significant strides towards achieving their strategic goals. Fundamentally, leadership continues to be the cornerstone of organizational development, offering the direction and illumination that propels businesses toward prosperity and success in the face of uncertainty and change.

Outlook:

Future studies in talent management, organizational transformation, and leadership development should keep examining new developments and best practices. Furthermore, longitudinal research can shed light on the long-term effects of various leadership philosophies on the results of organizational development. Furthermore, the universality vs contingency of leadership principles in various cultural contexts can be clarified by cross-cultural study. Researchers may contribute to evidence-based strategies that enable leaders to effect good change and build successful organizations in the twenty-first century by expanding our understanding of the role of leadership in organizational growth.

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A Language Variation: A Study of the Factors Creating Varieties within a Language

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Abstract:-

Every language has so many varieties within itself. These varieties share common core of the language, but have differences in pronunciation, accent, intonation, vocabulary and grammar. There are some factors that are responsible for this language variation. These factors are region, education and social standing, age, gender, profession, subject matter, context, attitude, medium and interference of one language over the other. Besides these each person has his own variety of language. He never speaks in the same way at all the times, but his language changes according to situation, his attitude, his mental- physical state, the context, subject-matter and the medium.

Language changes according to Geographical Region. The regional a variety is called, 'Dialect'. Each person has his own variety of language, which is called, 'Idiolect'. A person's language depends on his education and social standing. The educated and high-class people speak 'Standard language', the middle-class people speak 'Sub-standard Language', while the uneducated and lower-class people speak 'Non-standard Language'. Age and Gender has its Impact on person's language. The language of children differs from the grown ups. The Language of women is different from that of men. A person's profession has its impact on his language. The variety according to profession and subject-matter is called 'Register'. A person never speaks in the same manner at all times. His Language changes according to context and also according to his attitude towards the listener. This variety is called, 'Style '. Language changes according to Medium. Spoken language differs from the written. When a person speaks a second language, it has the impact of his mother tongue, or any other language which is spoken around him. Thus, there are created so many varieties within a language. The above discussed factors are responsible for language Variation.

Keywords: - Language Variation, Factors, Varieties, Dialect, Idiolect, Register, Style.

Introduction:-

Variation is an important feature of language. Language Variation is the core concept of Socio-linguistics. Each language has so many varieties within itself. Of course, the common core of the language is same. But there are differences, mainly in pronunciation, accent, intonation and vocabulary. There are slight differences in grammar and spellings. There are many factors that creat varieties within a language, such as geographical region, education and social standing, age and gender of the speaker, his profession, subject-matter and context, his attitude towards the listener(s), medium and interference of his mother-tongue on his second or third language. Inspite of all the varieties, each person has his own variety of language.

Objectives of the Study:-

1) To study the impact of various factors on language.
2) To study the varieties within a language.

Factors Responsible for Language Variation:-

1) Geographical Region: - Language changes according to Geographical Region. People living in one Geographical area speak in the same manner and their language differs from the people living in another geographical region. The regional variety of a language is called, 'Dialect'. Each language has so many Dialects that differ from one another. Sometimes, there differences are so vast that these dialects are considered as a separate languages during long span of time. e.g. The dialects of German language are now known a separate languages such as English Dutch, German, Swedish, etc. Regional Variation is predominantly realised in phonology. That is, we generally recognize a different dialect from a speaker's pronunciation. There are also differences in vocabulary. Grammatical differences are slight.

English has so many dialects within Britain and all over the world. So, English has not only dialects, but national varieties also e.g. American English differs from the British English and Indian English differs from both the British and the

American English. Within British English, there are dialects such as Irish, Scots, Northern, Midland, Welsh South-western etc. Within American English, we can distinguish between the Southern and Northern English. Even within the Northern American English, there are dialects such as Canadian, New England, Midland etc. Within Indian English we can distinguish between the north Indians and the south Indians. Within India, there are so many regional languages and each regional language has dialects within itself. e.g. Hindi, our national language, has so many dialects such as Khadi Boli, Bhojpuri, and Avadhi etc. Marathi is the language of Maharashtra and it has many dialectal varieties as Puneri, Varhadi, Khandeshi, Tavadi, Ahirani, Kokani etc. Even within a dialect, there are so many varieties. It is said that Language changes per ten kilometres.

Even within a dialectal area, each person has his own way of speaking. Everyone's language has his own stamp and it differs from others. This individual variety of language is called, 'Idiolect'.

Education and Social Standing:-

Within each of the dialect areas, there is considerable difference in speech of people caused by their education and social standing. The speech of the uneducated person is identified completely with the dialect. But the speech of an educated person crosses the dialectal boundry. Educated speech is given prominence and additional prestige in learned professions, public fields, government agencies, political parties, the press, the law-court, the educational institutions, the pulpit and any of the institutions which try to address itself to a larger public beyond the small dialectal community.

The speech of educated and high-class people is considered as 'Standard Language' and it is given prominence and prestige. e.g, The English Spoken on 'BBC' is accepted as Standard English and others try to follow it. In contrast with Standard English, some forms of speech are specially associated with uneducated use. It is called, 'Sub-standard Language'. It is usually spoken by uneducated middle class people. The language which is spoken by the uneducated and lower –class people is considered as 'Non-Standard Language'.

There are some National standards of English. e.g, British, American, Indian, Australian are the national standards of English which differ from one another in some respects. Scotish and Irish English resemble to British English, while Canadian English is similar to American English. Australian English is also a dominant form of English.

Varieties according to Subject matter:-

The varieties created by the subject matter of discourse are called as, 'Registers'. A person's profession has a great impact on his language. e.g, If a lawyer is speaking, he often speaks in terms of law. A doctor's speech will be related to medicine and health. A teacher will talk in the way of instructing. A business man can be recognised with his language. Each profession has a particular type of vocabulary and has its own style. So, a person's speech has a stamp of his profession, though he does not speak in the same way all the time.

Varieties according to context:-

Every person cannot speak in the same way at all times. He switches from one variety to another according to the context in which he is speaking. e.g, When a lawyer argues in the court, he uses the law register, speaks in standard language, but when he comes home, he may speak in a dialect. If a person is in a wedding-party, his language will be enthusiastic and happy, but if he goes to a funeral, he will speak in a serious tone. So, each and every person has to switch from one variety of language to another according to the situation or context.

Varieties according to attitude:-

A person's language depends on his attitude towards the listener, to the subject-matter and to the purpose of communication. The Variety according to attitude is called 'Style.' If may be formal, stiff, impersonal on the one hand and it may be informal, relaxed, warm, friendly on the other. When a speaker is delivering a lecture in front of the audience, he speaks in formal style. When a teacher is teaching, he uses the instructive style. When a person is speaking to his friend, he uses friendly, warm, relaxed style. When we speak to children, our style is that of commanding but when we speak to our elders, our style is of convincing. Thus, our style depends upon our attitude to the listener and to the subject matter and to the purpose of communication.

Varieties according to Medium:-

Medium makes difference in language. There are two varieties according to the medium spoken and written language. Spoken language is situational, while written language presumes the absence of the listener (s). So, written language needs greater explicitness, careful and precise sentences. The spoken language is supported by gestures, so the speaker can use less words. In spoken language, we use so many devices such as stress, rhythm, intonation, tempo for conveying our meaning to the listener. In written language, these features are absent. So, the spoken language is natural and informal, while the written language is formal and illustrative.

Varieties according to Interferences:-

A person's mother-tongue interferes with his second or third language. Whenever anyone speaks a foreign language, there is seen the impact of his mother-tongue or first language on his foreign language. e.g. When a Marathi man speaks English, he imposes the grammar of Marathi on his English. A Marathi Speaker uses masculine gender for moon. It is the interference of his mother- tongue. When a Frenchman says, "I am here Since 'Thursday", he is imposing a French grammatical usage on English.

Varieties according to Age:-

A person's language depends on his age. A child is linguistically adult by the age of six years. Before this an infant's language is different. Even if, the child is linguistically adult, his language differs from that of teen-agers, youths, middle-aged people and the old people. The language of each age-group is different from another. This difference is remarkable in their vocabulary, style and tone of speaking.

Varieties according to Gender:-

Gender also makes difference in the language. e. g. The language of women is different from the language of men. The difference is seen in their style, diction, intonation and gestures. The vocabulary of women is different from men. There are certain words which are used only by women and other words which are used only by men. The people of transgender have their own variety of language that differs from both male and female language.

Conclusion:-

Thus, there are numerous varieties within each and every language caused by various factors such as region, education and Social standing, age, gender, subject matter, context, profession, attitude, medium and interference of first language on the second or foreign language. In addition to all these varieties, every person has his own variety of language called as 'Idiolect'. Yet, a person never uses the same variety of language at all times. He often switches from one variety of language to another according to his need, context, subject matter, attitude and purpose of communication. All the varieties of a language differ from one another, but they are share the common core of the language.

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Digital Economy: Challenges and Opportunities

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Abstract:

The digital economy has emerged as a transformative force reshaping industries, economies, and societies worldwide. This paper explores the challenges and opportunities presented by the digital economy, examining its impact on various sectors and the broader socioeconomic landscape. Through a comprehensive review of literature and empirical evidence, this research identifies key challenges such as digital divide, data privacy, cybersecurity, and regulatory complexities. Conversely, it highlights opportunities for innovation, economic growth, job creation, and societal advancement facilitated by digital technologies. By understanding these dynamics, policymakers, businesses, and individuals can better navigate the digital economy to harness its potential while mitigating its pitfalls. Highlighting the challenges, the paper elucidates the persistent digital divide, which perpetuates socioeconomic disparities by impeding access to digital technologies and internet connectivity. It scrutinizes the pressing issues of data privacy and security, exploring the intricate balance between harnessing the power of data-driven technologies and safeguarding individual privacy rights. Moreover, it navigates the labyrinth of regulatory complexities, underscoring the imperative for agile regulatory frameworks to keep pace with rapid technological advancements. The digital economy, characterized by the pervasive use of digital technologies to conduct economic activities, has indeed become a dominant force reshaping various aspects of society. One key aspect of its impact is the transformation of industries across sectors. For instance, in the retail sector, traditional brick-and-mortar stores face significant competition from e-commerce platforms, leading to shifts in consumer behavior and business models. Similarly, in the financial sector, fintech innovations have disrupted traditional banking and payment systems, leading to greater financial inclusion but also raising concerns about cybersecurity and data protection. Addressing these challenges requires concerted efforts from various stakeholders. Policymakers play a crucial role in formulating regulations that promote innovation while safeguarding consumer rights, privacy, and security.

Keywords: Innovation, Cybersecurity, Data privacy.

Introduction:

The digital economy, characterized by the pervasive use of digital technologies in economic activities, has become a dominant driver of global growth and development. From e-commerce and digital finance to artificial intelligence and blockchain, digital innovations are revolutionizing how businesses operate, how people interact, and how societies function. While offering immense opportunities for progress and prosperity, the digital economy also presents significant challenges that must be addressed to realize its full potential. This paper provides an overview of the challenges and opportunities inherent in the digital economy, aiming to inform stakeholders about the complexities of this rapidly evolving landscape. As we delve deeper into the labyrinth of the digital economy, it becomes imperative to navigate the myriad complexities that characterize this rapidly evolving landscape. From bridging the gaping chasm of the digital divide to safeguarding individual privacy in an era of ubiquitous data collection, the challenges we confront are as diverse as they are daunting. Moreover, the regulatory frameworks that govern this digital frontier often struggle to keep pace with the breakneck speed of technological innovation, leading to legal ambiguities and regulatory vacuums that undermine trust and hinder progress.In this paper, we undertake precisely such a journey, delving into the intricacies of the digital economy to unravel its mysteries and glean insights that can inform strategic decision-making at the individual, organizational, and societal levels. Through a rigorous analysis of scholarly literature, empirical evidence, and real-world case studies, we seek to illuminate the path forward in a world where the only constant is change, and the only certainty is uncertainty.

Understanding the Digital Economy:

This section defines the digital economy, outlining its key components, such as digital infrastructure, online platforms, digital skills, and digital transactions. It examines the evolution of the digital economy and its growing importance in driving productivity, innovation, and competitiveness across sectors. Additionally, it discusses the global reach of the digital economy and its implications for both advanced and emerging economies. The digital economy is not merely a sector or industry; rather, it permeates all aspects of economic activity, fundamentally reshaping traditional business models and value chains. At its core, the digital economy thrives on the seamless flow of data, which serves as the lifeblood of digital transactions, analytics, and innovation. Data, often referred to as the "new oil," fuels the engine of the digital economy, powering algorithms, machine learning models, and predictive analytics that drive personalized experiences and optimize decision-making processes.

Moreover, the digital economy is characterized by its networked nature, where digital platforms and ecosystems serve as intermediaries, connecting producers and consumers in novel ways. These platforms leverage network effects and economies of scale to create unparalleled value, enabling rapid experimentation, agile innovation, and disruptive business models. Examples abound, from ride-hailing platforms like Uber and Lyft to accommodation-sharing services like Airbnb, which have upended traditional industries and transformed consumer behavior.

Furthermore, the digital economy thrives on innovation, with technology serving as a catalyst for creative disruption and entrepreneurial activity. Startups and tech giants alike leverage digital technologies such as cloud computing, artificial intelligence, and blockchain to develop groundbreaking products and services, from fintech solutions to healthcare innovations. This culture of innovation fosters a dynamic ecosystem where ideas are rapidly prototyped, tested, and scaled, driving continuous improvement and market evolution.

Moreover, the rapid pace of technological change poses challenges for policymakers and regulators, who must grapple with complex issues such as antitrust concerns, algorithmic bias, and the ethical implications of emerging technologies. Balancing innovation with consumer protection, competition, and societal values requires agile regulatory frameworks that can adapt to the evolving digital landscape while upholding principles of fairness, transparency, and accountability.

Challenges in the Digital Economy:

a) Digital Divide: The digital divide persists as a significant barrier to inclusive participation in the digital economy, perpetuating disparities in access to technology, information, and opportunities. While urban centers and affluent regions enjoy high-speed internet connectivity and access to digital tools, rural and remote areas, as well as marginalized communities, often lack basic infrastructure and digital literacy programs. This digital exclusion exacerbates existing socioeconomic inequalities, limiting access to education, healthcare, employment opportunities, and essential services. Bridging the digital divide requires holistic strategies that prioritize infrastructure investments, digital skills training, and community empowerment initiatives to ensure that no one is left behind in the digital age.

b) Data Privacy and Security: The proliferation of data-driven technologies raises profound concerns about data privacy, security, and ethical use. As individuals and organizations generate vast amounts of data through their digital interactions, the risk of unauthorized access, data breaches, and misuse looms large. Moreover, the commodification of personal data by tech companies and digital platforms raises questions about consent, transparency, and consumer rights. Strengthening data protection mechanisms, enforcing robust cybersecurity measures, and promoting digital literacy are essential steps to safeguarding individual privacy rights and building trust in digital ecosystems.

c) Regulatory Complexity: The rapid pace of technological innovation often outpaces the capacity of existing regulatory frameworks to address emerging challenges in the digital economy. This regulatory lag leads to legal ambiguities, regulatory gaps, and jurisdictional conflicts that hinder innovation, impede market competition, and erode consumer trust. Moreover, divergent regulatory approaches across jurisdictions create compliance burdens for multinational corporations and exacerbate fragmentation in the global digital landscape. Harmonizing regulatory standards, fostering international cooperation, and adopting agile regulatory frameworks are imperative to navigating the complex regulatory environment of the digital economy.

d) Skills Shortages and Workforce Displacement: The digital transformation of industries demands a skilled workforce proficient in digital literacy, critical thinking, and adaptability. However, there is a widening gap between the demand for digital skills and the available talent pool, leading to workforce displacement and structural unemployment. Moreover, automation and artificial intelligence threaten to disrupt traditional jobs and redefine labor markets, raising concerns about job displacement and income inequality. Investing in lifelong learning programs, reskilling initiatives, and job transition support is crucial to equipping individuals with the skills needed to thrive in the digital economy and ensuring a smooth transition to the jobs of the future.

e) Digital Dependence and Systemic Risks: The increasing reliance on digital infrastructure and interconnected systems exposes economies to systemic risks such as cyber-attacks, technological failures, and disruptions. A single cyber-attack or data breach can have far-reaching consequences, disrupting critical services, undermining business continuity, and eroding consumer trust. Moreover, the concentration of digital infrastructure in the hands of a few tech giants raises concerns about market dominance, monopolistic practices, and systemic vulnerabilities. Strengthening cybersecurity resilience, diversifying digital infrastructure, and promoting competitive market dynamics are essential measures to mitigate systemic risks and enhance the resilience of the digital economy.

Opportunities in the Digital Economy:

a) Innovation and Entrepreneurship: The digital economy fosters innovation and entrepreneurship by lowering barriers to entry, facilitating rapid prototyping, and enabling global market access through digital platforms and ecosystems.

b) Economic Growth and Job Creation: Digital technologies stimulate economic growth by enhancing productivity, enabling new business models, and creating employment opportunities across diverse sectors, including information technology, digital services, and advanced manufacturing.

c) Enhanced Connectivity and Collaboration: Digital connectivity enables seamless communication, collaboration, and knowledge sharing among individuals, businesses, and governments, driving collective intelligence, creativity, and social cohesion.

d) Sustainable Development and Inclusive Growth: The digital economy can support sustainable development goals by promoting inclusive growth, expanding access to essential services such as healthcare and education, and empowering marginalized communities through digital inclusion initiatives.

e) Digital Marketing and Customer Engagement: The digital economy offers unprecedented opportunities for businesses to engage with customers through targeted digital marketing strategies. Digital marketing channels such as social media, search engine optimization (SEO), and email marketing enable businesses to reach highly segmented audiences, personalize messaging, and measure campaign effectiveness in real-time. Moreover, advanced analytics and data-driven insights empower businesses to understand customer behavior, preferences, and purchase patterns, enabling them to optimize marketing efforts and drive conversions. By leveraging digital marketing techniques, businesses can enhance brand visibility, customer engagement, and loyalty in the digital economy.

f) Remote Work and Distributed Teams: The digital economy has transformed the way people work and collaborate, enabling remote work and distributed teams to thrive in virtual environments. Digital technologies such as video conferencing, cloud collaboration tools, and project management platforms facilitate seamless communication, collaboration, and productivity regardless of geographic location. Remote work offers benefits such as flexibility, work-life balance, and access to a global talent pool, enabling businesses to attract and retain top talent while reducing overhead costs associated with traditional office spaces. By embracing remote work and distributed teams, businesses can foster a culture of innovation, agility, and inclusivity, driving productivity and competitiveness in the digital economy.

g) Digital Learning and Education Technology: The digital economy is reshaping education and lifelong learning through digital learning platforms and education technology (EdTech) solutions. Online learning platforms, Massive Open Online Courses (MOOCs), and virtual classrooms enable individuals to access high-quality educational content, courses, and certifications from leading institutions and experts around the world. Moreover, adaptive learning technologies, gamification, and immersive experiences enhance engagement and retention, enabling personalized learning experiences tailored to individual preferences and learning styles. By leveraging digital learning and EdTech solutions, educational institutions, businesses, and policymakers can expand access to education, bridge skills gaps, and empower learners to thrive in the digital economy.

h) Digital Identity and Personalization: The digital economy enables businesses to leverage digital identity and personalization techniques to deliver tailored experiences and services to customers. Digital identity solutions such as biometrics, digital signatures, and blockchain-based identity management enable secure and seamless authentication, verification, and authorization of individuals across digital platforms and transactions. Moreover, personalization algorithms and recommendation engines analyze user data and behavior to deliver personalized content, product recommendations, and offers, enhancing customer satisfaction and loyalty. By embracing digital identity and personalization strategies, businesses can deepen customer relationships, drive engagement, and differentiate themselves in the digital marketplace.

Policy Implications and Recommendations:

a) Digital Infrastructure Investment: Governments should prioritize investments in digital infrastructure, including broadband networks, 5G technology, and digital literacy programs, to bridge the digital divide and promote equitable access to digital technologies. Public-private partnerships can play a crucial role in funding and implementing digital infrastructure projects, leveraging both government resources and private sector expertise to maximize impact and ensure sustainability.

b) Agile Regulatory Frameworks: Policymakers need to adopt agile regulatory frameworks that balance innovation with consumer protection, privacy rights, and cybersecurity standards.

Regulatory sandboxes can provide a controlled environment for testing new technologies and business models, allowing regulators to gather insights and develop tailored regulations that foster innovation while mitigating risks. Moreover, international cooperation and harmonization of regulations are essential to address cross-border challenges and promote a level playing field in the digital economy.

c) Digital Skills Development: Education and training programs should be reoriented to equip individuals with the digital competencies needed to thrive in the digital economy. Curriculum reforms, vocational training initiatives, and lifelong learning programs can help close the digital skills gap and ensure that individuals are prepared for the jobs of the future. Moreover, partnerships between educational institutions, businesses, and industry associations can facilitate the development of industry-relevant skills and promote workforce readiness in the digital age.

d) Cybersecurity and Data Protection: Governments should strengthen cybersecurity measures and data protection regulations to safeguard digital assets and protect individuals' privacy rights. This includes investing in cybersecurity infrastructure, promoting cybersecurity awareness and education, and enforcing stringent data protection laws. Moreover, international cooperation and information sharing are crucial to combatting cyber threats and addressing cross-border cybersecurity challenges effectively.

e) Promotion of Innovation and Entrepreneurship: Policymakers should create an enabling environment for innovation and entrepreneurship by reducing regulatory barriers, providing access to funding and mentorship, and fostering collaboration between startups, academia, and industry. Incentives such as tax breaks, grants, and incubator programs can encourage investment in research and development (R&D) and stimulate innovation-driven entrepreneurship. Moreover, public procurement policies can promote the adoption of innovative solutions and support the growth of startups in emerging technology sectors.

f) Digital Inclusion and Accessibility: Governments should prioritize digital inclusion initiatives to ensure that all individuals, including those from marginalized communities and underserved regions, have access to digital technologies and services. This includes subsidizing digital devices and internet connectivity for low-income households, providing digital literacy training for vulnerable populations, and designing user-friendly digital interfaces that accommodate diverse needs and abilities. Moreover, accessibility standards and regulations should be enforced to ensure that digital products and services are accessible to people with disabilities.

g) Digital Governance and Accountability: Governments should enhance digital governance mechanisms to ensure transparency, accountability, and public participation in decision-making processes related to the digital economy. This includes establishing regulatory bodies, oversight mechanisms, and multi-stakeholder forums to monitor digital developments, address regulatory challenges, and engage stakeholders in policy dialogue. Moreover, mechanisms for grievance redressal and dispute resolution should be established to address concerns related to data privacy, consumer rights, and digital rights in the digital economy.

Conclusion:

The digital economy presents a myriad of challenges and opportunities that require strategic foresight, collective action, and innovative solutions. By addressing issues such as digital divide, data privacy, regulatory complexity, and skills shortages while harnessing the transformative potential of digital technologies, stakeholders can navigate the digital economy to foster inclusive growth, economic resilience, and societal well-being in the digital age. In the rapidly evolving landscape of the digital economy, it is evident that we stand at the forefront of a transformative era characterized by unprecedented opportunities and challenges. The digital revolution has not only reshaped the way we conduct business, communicate, and interact with the world but has also redefined the very fabric of our societies and economies. As we navigate this intricate terrain, it becomes imperative to reflect on the multifaceted implications of the digital economy and chart a course that maximizes its benefits while mitigating its risks. Throughout this paper, we have explored the myriad facets of the digital economy, from its disruptive potential to its profound impact on various sectors and stakeholders. We have delved into the challenges posed by the digital divide, data privacy concerns, regulatory complexities, skills shortages, and cybersecurity threats, highlighting the urgent need for proactive measures to address these issues. However, amidst these challenges lie abundant opportunities for innovation, economic growth, and societal advancement.

It is clear that the digital economy holds the key to unlocking new frontiers of progress and prosperity. From fostering entrepreneurship and job creation to enhancing connectivity and collaboration, digital technologies have the power to drive inclusive growth, empower individuals, and address pressing societal challenges. In conclusion, the digital economy represents a defining chapter in human history, offering unparalleled opportunities to drive progress and positive change. As we embark on this transformative journey, let us seize the moment to build a digital future that is inclusive, sustainable, and beneficial for all members of society. Together, we can harness the power of digital technologies to create a world where innovation thrives, opportunities abound, and prosperity is shared by all.

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Analysis of Location-wise Impact of Kumbhi River on Along-side Villages

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Abstract:

Rivers play a crucial role in agricultural development for several reasons I.e Rivers are lifelines for agriculture, providing water, fertile soil, transportation, and other resources that are essential for agricultural development and food security. Geographical position is crucial to the growth of villages in India. Historically, villages were developed along river banks and in caves. The Kumbhi River and its role in the agricultural sector is the focus of a new study. The study examines the role of the river in the development of the villages in the basin. Within this study, we examine the socioeconomic effects of the river on the seaside grazing settlements, where about 80% of the population works in agriculture. The villages of Katali, Navipade, and Malharpeth serve as representatives of each zone in the Kumbhi basin, exhibiting traits that are mostly consistent across the zones. Despite being close to the Kumbhi River, Katali hamlet is not as developed as it may be due to its mountainous terrain, difficulty of access, and inadequate infrastructure and educational resources..The community of Nivade is reasonably developed. It is situated close to the confluence of the Kolhapur and Gaganbavada roads and is mostly developed in the agricultural sector; however it lags behind in terms of infrastructure and educational opportunities. The lower zone's well developed village of Malharpeth benefits from its position and the Kumbhi irrigation project program.

Keywords: Irrigation, Location Impact, Kumbhi Irrigation Project, Development

Introduction:

Since water availability and security are two major variables determining settlement sites and their growth, historically, villages were developed along river banks and in caves. As a result, the majority of homes are located along the river flow. Humans have three essential requirements: clothing, food, and shelter. Since food and shelter are necessities, man built his shelter next to a river to meet these needs. Near the Panchganga River is Kolhapur town, one of the outstanding examples of a river side community.

Geographical position is crucial to any growth because of factors including topography, water availability, physiographic condition, security, and more. There are three different methods to convey location: absolute, relative, and marine. Since India is an agricultural nation a big portion of the population depends on the agricultural sector, which depends on the availability of water, location, and economic growth. Since India experiences four distinct months with high rainfall, river sites are preferred for habitation. The focus of the current study is on geography and how it affects village development in the Kumbhi basin.

Water supplied from rivers, tanks, wells, canals, and other man-made constructions for agricultural purposes is referred to as irrigation. In India, irrigation is important economically because it lessens reliance on the monsoon, increases agricultural productivity, expands the amount of land under cultivation, stabilizes output levels, creates jobs, provides transportation and electricity, controls floods, and prevents droughts. The Kumbhi River, one of the Panchganga's tributaries, and its role in the growth of the communities within its basin are the focus of the current research. Based on their locations, the three villages of Katali, Nivade, and Malharpeth were chosen: Katali is located in the top zone of the Kumbhi basin, Nivade is located in the middle zone, and Malharpeth is located in the bottom zone. Within this study, we examine the socioeconomic effects of the river on the seaside grazing settlements, where about 80% of the population works in agriculture.

Study Area:

Concern location map of the study area shows two tehsils of Kolhapur district namely Gaganbavda & Panhala respectively. Three blue dots represent study regions Katali, Nivade, and Malharpeth villages. The latitude of katali village is 16^0 51’ and longitude 75^0 87’, altitude of Katali village is 590m.The latitude of Nivade village is 16^0 67 and longitude 73^0 97’, altitude of Nivade village is 566m. The latitude of Malharpeth village is 17^0 34’ and longitude 74^0 00’, altitude of Malharpeth village is about 563m.

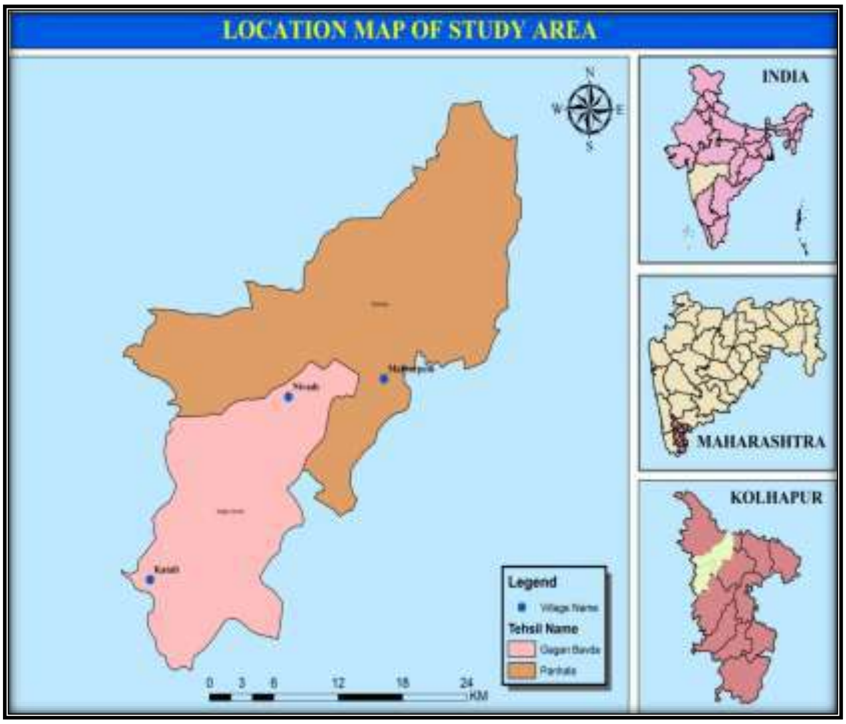


Fig.1 location Map of Study Area

Objective:

1) To study the socio-economic development of the villages in Kumbhi River basin.

Database & Methodology: Based on river length, the Kumbhi basin is separated into **three distinct zones**: upper, middle, and lower. Based on their locations, the research area was first split into three main zones. The settlements of Katali, Nivade, and Malharpeth have been chosen as the research area. Malharpeth is chosen from the lower zone of the Kumbhi river basin, Nivade village from the intermediate zone, and Katali village from the upper zone. Using stratified random sampling, this data was gathered from the farmers. The current study investigates how the Kumbhi River's irrigation has impacted the socioeconomic growth of the villages of Katali, Nivade, and Malharpeth. We observed the issues facing the local farmers and conducted interviews with them. We are unmistakably displaying a snapshot of his life. Empirical methods such as field surveys and questionnaires are used to gather specific data. Thus, primary sources of data form the basis of the current study.

Results & Discussion: The river Kumbhi, a left-bank tributary of the Bhogawati river in the Krishna Basin, rises 4 km upstream from the village of Taliye in the Sahydri hill ranges at an elevation of 975 meters. The Kumbhi River begins close to Gaganbawada and runs for around 15 miles in a north-easterly direction before turning east and meeting up with the significant Dhamani tributary at Chougulewadi. The Kumbhi River originates in the south, close to the settlement of Nalechiwadi. The Kumbhi River originates close to Bavda and travels fifteen kilometers northeast to reach Kirwai.

Kumbhi Irrigation Project: The Krishna Basin on the river Kumbhi, close to the hamlet of Lakhamapur in Gaganbawada Taluka of the Kolhapur district in Maharashtra, is home to the Kumbhi Medium Irrigation Project. A 906-meter-long earth dam with a maximum height of 42.58 meters and a 29-meter-long ogee-shaped spillway with three radial gates measuring 8 meters by 4 meters make up the project. By lifting water from the river using ten KT Weirs that have already been built a long time ago, the water held in the reservoir will be used to discharge water in the river to give an annual irrigation to 8711 hectares in Gaganbawda, Karveer, and Panhala Taluka of Kolhapur district. Tourism and fishing would also be advantages. The execution of the project was started in 1980. The project was approved by the Planning Commission for Rs. 5.16 crore in 1981. The project was placed under AIBP (quick track) in 2002–2003 and finished in 2006–2007.A total of 5881 hectares might be produced.The Kumbhi River's catchment area at the planned dam location close to Lakhampur hamlet. The Panchaganga River has a left bank tributary called the Kumbhi River. The coordinates of the Kumbhi dam project are 16.31 N and 73.51 E. The catchment area of Kumbhi Dam is around 21.2 sq km (8.2 sq mi). The region receives 7620 mm of rainfall, or 762 m, of water at its highest point, which is 612.70 m, while the dam's greatest height is 42.58 m. The Kumbhi dam project has benefits for 51 villages as well as the three tehsils of Panhala, Gaganbavada, and Karaveer, respectively.

Table. 1 Beneficial villages under Kumbhi Irrigation Project

Sr. No.	Tehsils	No. of Villages	Irrigable area in hectare	Irrigable area in Acre
1.	Gaganbavda	26	4943	12,214
2.	Panhala	14	2083	5,147
3.	Karveer	11	1685	4,164

Source: Kumbhi Medium Irrigation Project, Report.

The benefiting Tehsils or villages of the Kolhapur district under the Kumbhi dam project are displayed in the above table; there are a total of 51 villages spread across 3 Tehsils. A sizable portion of the 4943 hectares and 26 settlements that make up Gaganbavdatehsil are arable. The second-benefited tehsil is Panhala, which has 14 villages and an irrigation area of 2083 hectares. Karveer, which has 11 villages and an area of 1685 hectares beneath the Kumbhi dam, is the last but certainly not least.

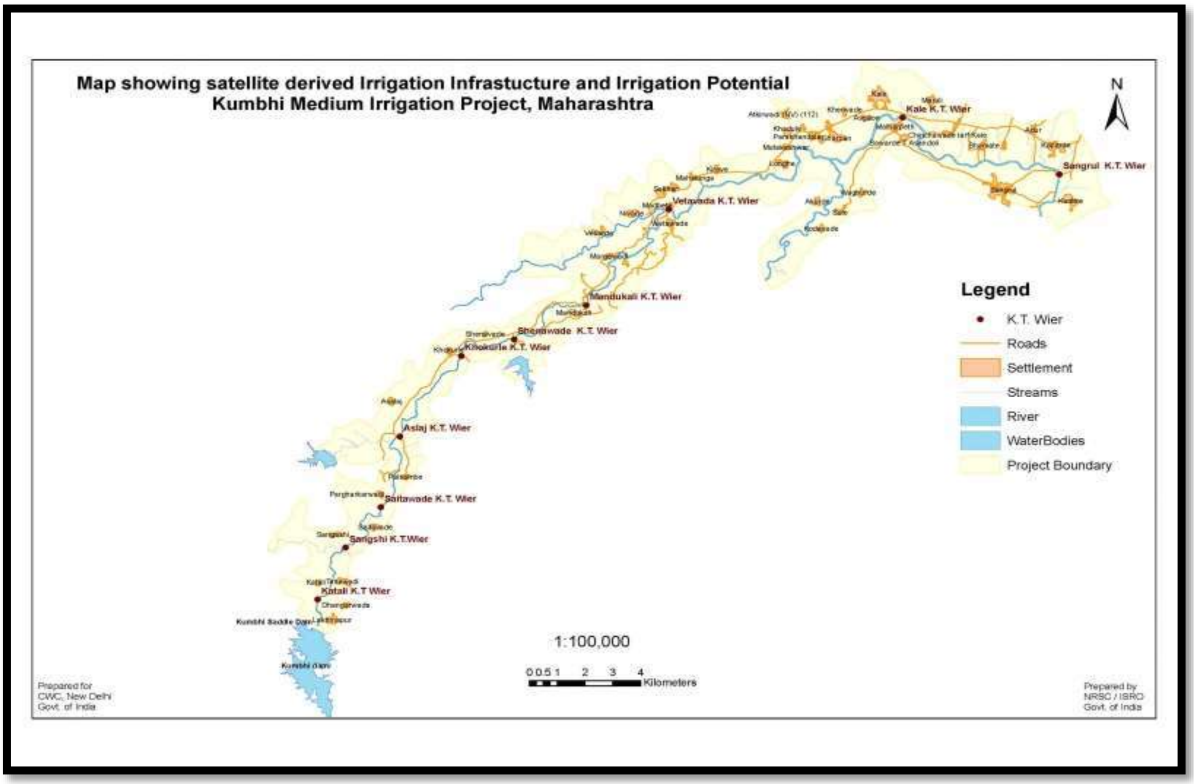


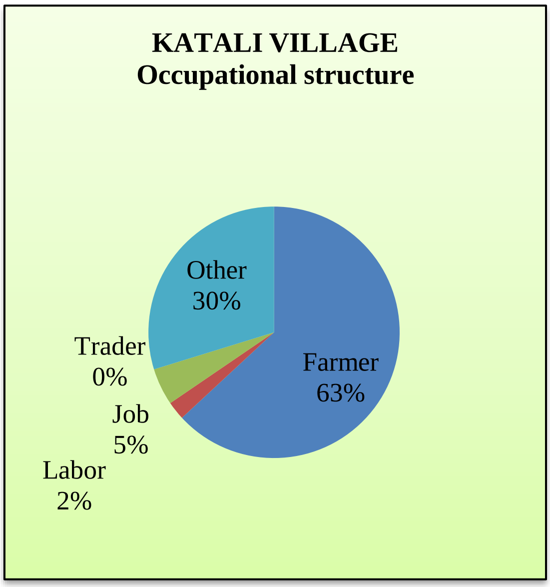
Fig. 2 Kumbhi Medium Irrigation Project, Maharashtra Source: Kumbhi Lift Irrigation Scheme.

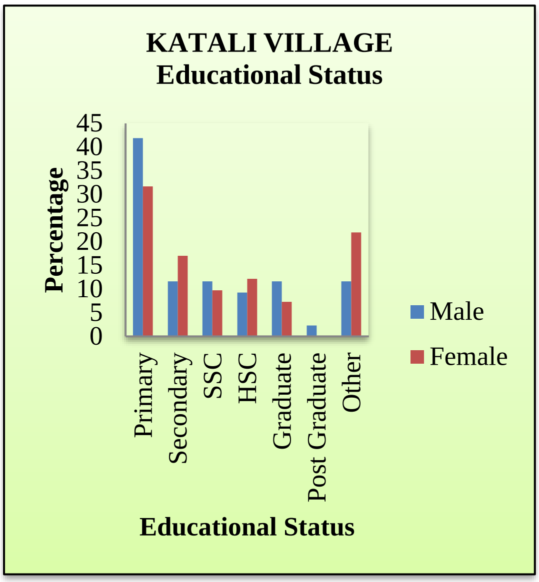
Katali (Upper Zone Village of Kumbhi River Basin): Katali Village is the most popular village of Gaganbavda tehsil, Katali belong form state of Maharashtra, in the Kolhapur district, country India. Katali village house are Eco- friendly in nature. The educational attainment of men and women in Katali village is displayed in a bar graph. Looking at the graph at the time, it was simple to determine that there were fewer women writers than men. The primary education ratio was 31.7 female and 41.86 male per population; however, secondary education was dominated by females since the majority of females dropped out of school after secondary education. Just a small percentage of postgraduate students were male.

Table. 2 Educational and Occupational Structure of Katali Village

Education	Male	Female	Occupation	Percentage
Primary	41.86	31.7	Farmer	63.09
Secondary	11.62	17.07	Labor	2.38
SSC	11.62	9.75	Job	4.76
HSC	9.3	12.19	Trader	0
Graduate	11.62	7.31	Other	29.76
Other	11.62	21.95		

Source: Field Survey (Compiled by Researcher).

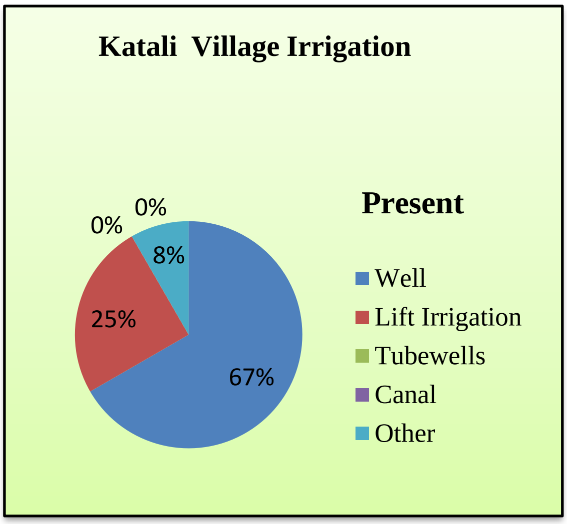


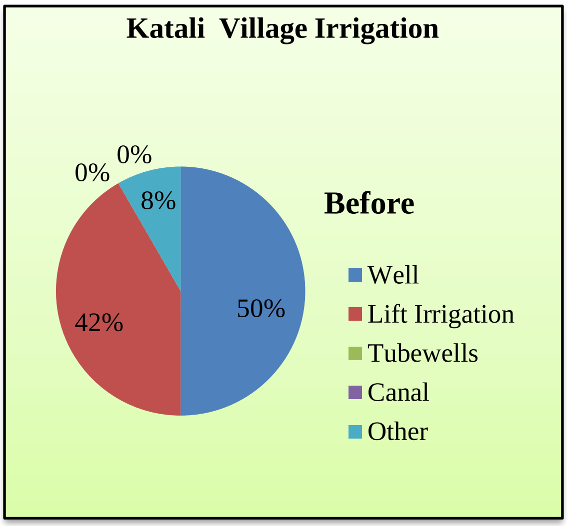


The male and female educational statuses in Katali village are displayed in the bar graph above. Looking at the graph at the time, it was simple to determine that there were fewer women writers than men. The primary education ratio was 31.7 females and 41.86 males per population; however, secondary education was dominated by females since the majority of females dropped out of school after secondary education. Only a small percentage of postgraduate students were male. The occupational structure of Katali village is depicted in the pie graphic above. The agricultural industry employs the majority of the people (63.09%) due to the availability of irrigation infrastructure and fertile terrain. 4.76 percent of people work for the government or privately.2.38 percent of people worked in the agricultural industry. Due to a lack of chances, there is not a single individual employed in the trade or trading-related sectors in Katali village.

Table. 3 Irrigational Facilities Before & After Dam Construction of Katali Village

Sr. No.	Irrigation	Before	Present
1	Well	50	66.66
2	Lift Irrigation	41.66	25
3	Tube wells	0	0
4	Canal	0	0
5	Other	8.33	8.33





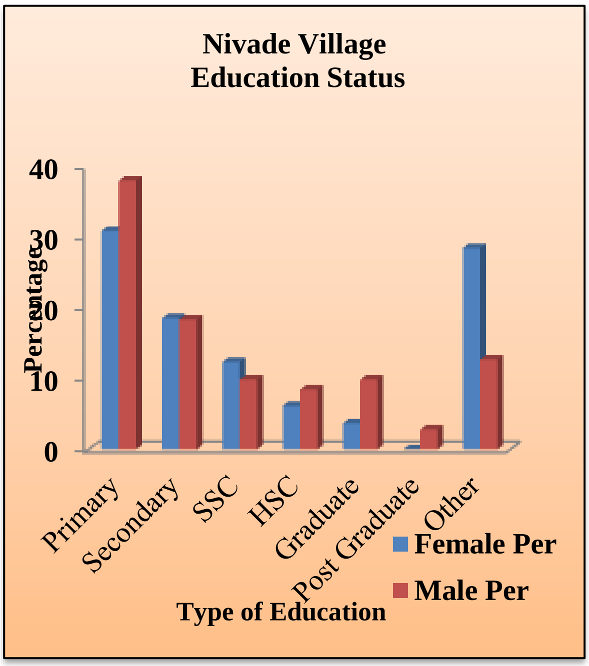
Source: Field Survey (Compiled by Researcher).

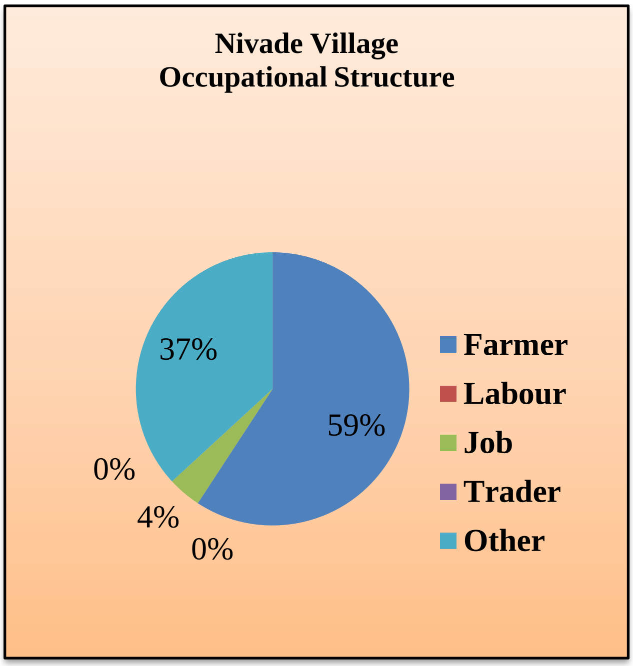
The irrigation system in Katali village before and after the dam was built is depicted in the pie figure above. There were not many modifications to the lift and well irrigation systems. Half of the land was irrigated by wells before to the construction of the dam, but this has since grown to 17% and is presently at 67%. The reason for this difference in the lift irrigation ratio is that it was 42% previously and is currently only 25%.

Nivade (Middle Zone Village of Kumbhi River Basin): Nivade is a village in the Kolhapur district of Maharashtra state, located near Panhala taluka. It is 34 kilometers west of Kolhapur, the district headquarters. Nivade is 563 meters above sea level in altitude. Over 80% of the residents of Nivade Village work in basic industries, such as agriculture. The Kumbhi River is only 500 meters long and is located fairly close to the Nivade settlement. This location marks the boundary between the districts of Sangli and Kolhapur.

Table. 4 Educational and Occupational Structure of Nivade Village

Education	Male	Female	Occupation	Percentage
Primary	30.86	38.02	Farmer	59.21
Secondary	18.51	18.3	Labour	0
SSC	12.34	9.85	Job	3.94
HSC	6.17	8.45	Trader	0
Graduate	3.7	9.85	Other	36.84
Post Graduate	0	2.81		
Other	28.39	12.67		



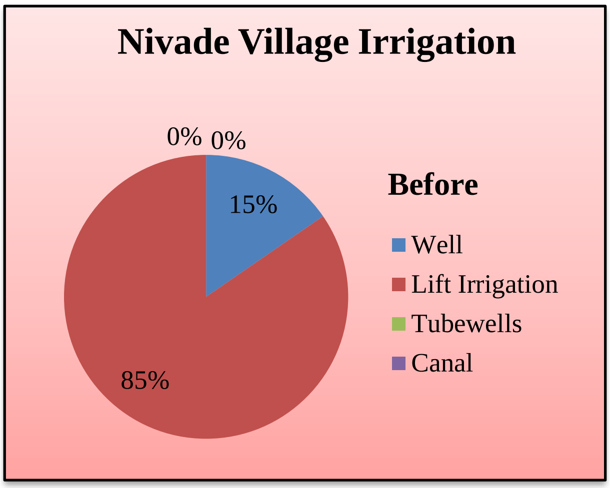


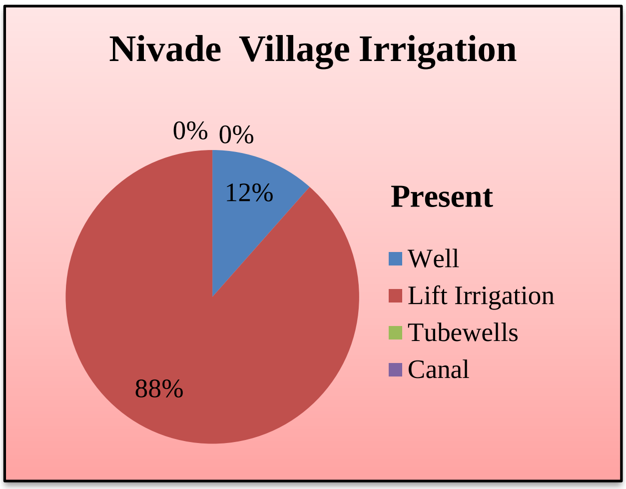
Source: Field Survey (Compiled by Researcher).

The multiple bars diagram at Invasion Village displays the proportion of educated men and women. The graph illustrates the differences in schooling between men and women. Men were enrolled in more categories than women, suggesting that fewer females pursue post-secondary education. The ratio of female to male schooling is particularly important because of the great distance between home and school. The occupational organization of Nivale Village is depicted in the pie figure. A sizable portion of the population (59.21%) is employed in farming due to the availability of water and rich terrain. Just 3.94% of the population is employed. That is a very modest percentage. The population that works in other occupations is 36.84%.

Table. 5 Irrigational Facilities Before & After Dam Construction of Nivade Village

Sr. No.	Irrigation	Present	Before
1	Well	11.53	15.38
2	Lift Irrigation	88.46	84.61
3	Tube wells	0	0
4	Canal	0	0





Source: Field Survey (Compiled by Research).

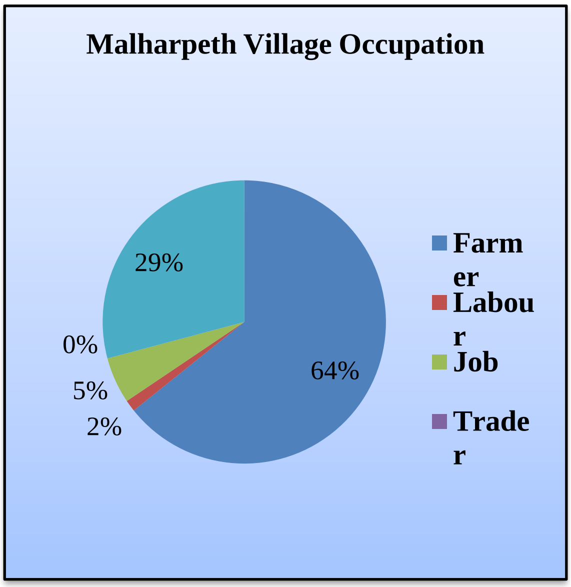
The pie graphic that compares the irrigation conditions of the past and present makes it easier to see how irrigation infrastructures have advanced. Before the dam was built, only 15% of irrigation was done using well water; 85% of irrigation was done by lift irrigation; however, today, 88% of irrigation is done through lift irrigation, while only 3% is done through well water irrigation.

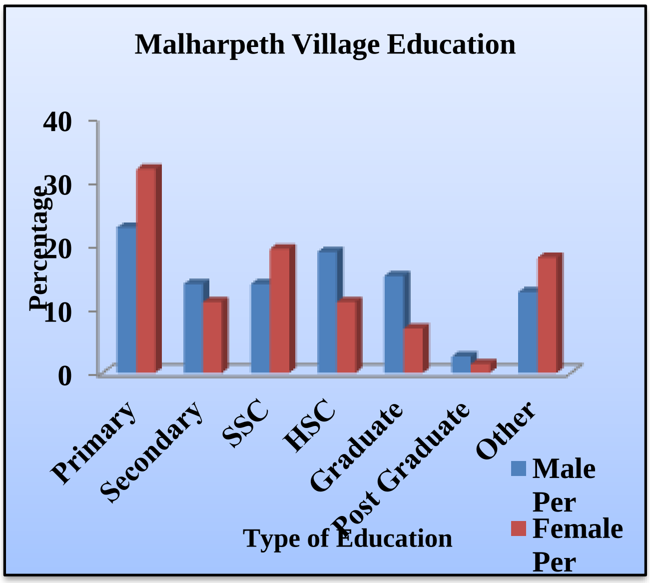
Malharpeth (Lower Zone Village of Kumbhi River Basin): Malharpeth is a hamlet in the Kolhapur district of Maharashtra state, India. It is located in Panhala tehsil. It is situated 23 kilometers west of Kolhapur, the district headquarters. Malharpeth Village is 563 meters above mean sea level in altitude. The settlement of Malharpeth is situated about 200 meters from the Kumbhi River's basin.

Table. 6 Educational and Occupational Structure of Malharpeth Village

Education	Male	Female	Occupation	Percentage
Primary	22.78	31.94	Farmer	64.23
Secondary	13.92	11.11	Labor	1.32
SSC	13.92	19.44	Job	5.29
HSC	18.98	11.11	Trader	0
Graduate	15.18	6.94	Other	29.13
Post Graduate	2.53	1.38		
Other	12.65	18.05		

Source: Field Survey (Compiled by Researcher*).*





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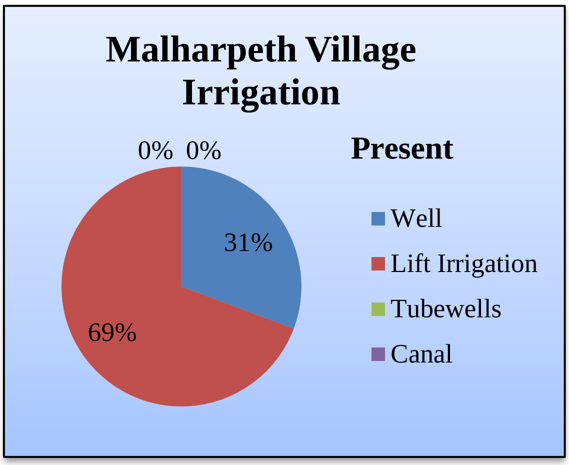
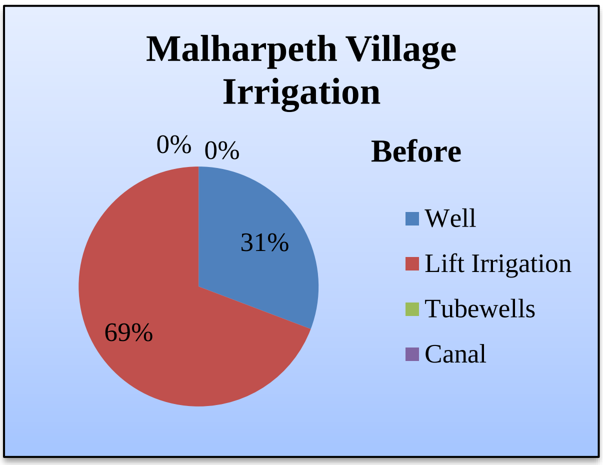
The educational standing of men and women in Malharpeth village is displayed in the bar graph above. Looking at the graph at the time, it was simple to determine that there were fewer women writers than men. Females are less likely to have completed basic school through graduate school. The occupation structure of Malharpeth Village is depicted in the pie figure above. Due to the proximity of the Kumbhi River to the village, 64% of the population is employed in the agriculture industry. Five percent of people work for the government or privately.2 percent of people is employed in the agricultural industry. There isn't a single individual in Malharpeth Village working in trade or related fields.

Table. 7 Irrigational Facilities Before & After Dam Construction of Malharpeth Village

Sr. No.	Irrigation	Before	Present
1	Well	30.76	30.67
2	Lift Irrigation	69.23	69.23
3	Tube wells	0	0
4	Canal	0	0





Source: Field Survey (Compiled by Researcher).

The created multi bar graphic compares the irrigation conditions from the past and current. There were no changes seen in the well water and lift irrigation.

Conclusion:

The villages of Katali, Navipade, and Malharpeth serve as representatives of each zone in the Kumbhi basin, exhibiting traits that are mostly consistent across the zones. Despite being close to the Kumbhi River, Katali hamlet is not as developed as it may be due to its mountainous terrain, difficulty of access, and inadequate infrastructure and educational resources. The community of Nivade is reasonably developed. It is situated close to the confluence of the Kolhapur and Gaganbavada roads and is mostly developed in the agricultural sector; however it lags behind in terms of infrastructure and educational opportunities. The lower zone's well developed village of Malharpeth benefits from its position and the Kumbhi irrigation project program.

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Rapid Growing pace of MSME Sector in Indian Economy

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Abstract:

MSMEs with its significant contribution in various socio-economic objectives like high growth of employment, production, promotion of exports and promotion of entrepreneurship in both developed and developing countries showed its importance in recent years. In any country's Industrial Development, MSME plays an important role. The large labour population and developed infrastructure in India offers it great potential for the expansion and improvement of the Micro, Small and Medium Enterprises sector. The recent trends in the micro, small and medium-sized enterprise sector were analysed by looking at the industry base, memorandum and industry registration. Due to its contribution in the growth of the industries, it become an important pillar of the Indian economy. This sector has not only contributed to the GDP and GVA of the country but has also provided employment to skilled/unskilled workers. The performance of the MSME sector indicates that the 'self-reliance' approach is not far behind in a populous country like country. This paper attempts to focus on the state of performance of MSMEs in India in terms of growth in number of units, growth of employment, market value fixed assets and gross value of production of MSME manufacturing sector.

Keywords – MSMEs, Indian Economy, Industries, Entrepreneurship

Introduction:

MSMEs has emerged as one of the most vibrant and dynamic sector of the Indian economy. Apart from providing, at comparatively lower capital cost, large employment opportunities, they also helps in uplifting of rural & backward areas through industrialization, thereby reducing regional imbalances, ensuring more equitable distribution of national income and wealth. They complement large industries as an ancillary units and contributes significantly to the socio-economic development of the country. Providing employment opportunities to the weakest and poorest section of the society by giving them a way out of continuing poverty.

MSME encourages innovations, new ideas and enhance entrepreneurial skills. They help diversify economic activities and contribute significantly to industrial growth and exports. Thus, the establishment and promotion of MSMEs across the world has assumed strategic importance. It contributes about 45% of the manufacturing sector's output and about 40% of the country's total exports. Facilitating about 117 million employment opportunities to people across the country, there are more than 6000 products, ranging from traditional to high-tech items, which are being manufactured by MSMEs in India. With its agility and dynamism, the sector has shown commendable innovation and adaptability to service the economic downturn. For massive populated countries like India, employment has been always a major issue. Agriculture and allied industries provide employment to most of the workforce but MSMEs also take second place in terms of employment. MSME include participation of men as well as women. Due to the nature of labour intensification, it leads to a decline in regional inequality, gender discrimination and economic inequality, and it also reduces unemployment and promotes inclusive growth.

Definitions of Micro, Small & Medium Enterprises:

The amendment to the MSME definition was announced in the Atma Nirbhar Bharat Package on May 13, 2020, 14 years after the MSME Development Act came into existence in 2006. As per this announcement, the definition of micro manufacturing and service units was increased to an investment of INR 1 crore and a turnover of INR 5 crore. The limit for small units was increased to INR 10 crore of investment and a turnover of INR 50 crore. Similarly, the limit of medium unit was increased to INR 20 crore investment and turnover of INR 100 crore. The government of India on 01.06.2020 decided to further amend the MSME definition. For medium enterprises, it will now be an investment of INR 50 crore and a turnover of INR 250 crore.

The existing criteria for definition of MSME is based on the MSMED Act, 2006. It was different for manufacturing and service units. It was also very low in terms of financial limits. Since then, the economy has undergone significant changes. After the package announced on May 13, 2020, there were several representations starting that the announced revision is still not in line with the market and price conditions and hence should be further revised. Keeping these representations in mind, the Prime Minister decided to further increase the limit for medium units. This has been done over time to be realistic and to establish an objective system of classification and provide ease of doing business.

Also a new composite formula of classification for manufacturing and service units has been notified. Now, there will be no distinction between manufacturing and service sector. Also a new criterion of turnover is added.

Features of MSME: MSMEs encourage the development of entrepreneurship as well as upgradation of skills by establishing specialized training centres.

1) They also have quality certification programs and modern testing facilities.
2) MSMEs work to improve the lives of employees and artisans. They help them by providing jobs, loans and other services.
3) They are dedicated to providing appropriate support in gaining access to domestic and international markets.
4) Provide credit limits of financing support to banks.
5) MSMEs are also supporting product creation, concept creativity, engagement and packaging in line with recent trends.
6) They are in favour of improving development technology, expanding infrastructure and modernising the entire sector.

Review of literature: Some of the important studies that are relevant to the present study are discussed below:-

Gare, Devaiah (2022) studies the importance of MSME has been recognized in recent years for its significant contribution in various socio-economic objectives such as high growth of employment, production, promotion of exports and promotion of entrepreneurship in both developed and developing countries. This paper is an attempt to focus on the current state of performance of MSMEs in India in terms of growth in the number of units, growth of employment, and market value of fixed assets and gross value of production of MSME manufacturing sector.

Dhawan, A.P and Rajini sharma (2018): concludes that Indian MSME play a vital role for the growth and development of the economy, it promotes sustainable development with the use of local resources, provides employment to youth, and increases the export and investment ratio. The goal of sustainable development of any economy cannot be achieved without employment generation and environment concerns. The objective of the present study is to analyse the performance of MSMEs and its role in sustaining sustainable development in India.

Singh, Archana and Nisha sharma (2023): states that MSMEs are the backbone of the Indian economy as it plays a vital role in the growth of the Indian economy in its unmatched contribution to the Indian GDP, providing employment and total exports of India. MSMEs in India are facing certain challenges at different stages of their life cycle. Some of the major challenges are lack of adequate and timely finance, regulatory issues, poor technology interventions, poor infrastructure, lack of trust etc. This is expected to be useful for policy makers of MSMEs in India. It also aims to provide a basis for future empirical research and further academic studies.

Banik, Shubham (2018) : states that small scale industries (SSI) refers to small entrepreneurs who are engaged in micro-scale production, manufacturing or service small scale industries play a central role in the economic and social development of India in the past-independence era. Small industries constitute the backbone of the developing economy with their effective, efficient, flexible and innovative entrepreneurial spirit. Small industry units around the world have been acknowledge as promoters of economic growth and promoting equitable growth. The contribution of small scale industries to the Indian economy in terms of employment generation, reducing imbalances, promoting inter-regional linkages, boosting exports and promoting equitable economic growth potential has been quite amazing. The sector employs more than 80 million individuals, contributing about 8% to the country's output, through more than 6000 products ranging from traditional to high-tech, including more than 36 million units spread widely across the country. This paper attempts to discuss the role of small scale industries in the development of the economy and explore the various problems faced by it.

Sharma, **Jyoti & Ms. Guneet Gill (2016):** describe the expansion of the MSME sector, which has been recognized worldwide as an engine of growth. MSMEs contributes significantly towards economic growth, balanced regional development, job creation and overall poverty reduction through capital and entrepreneurship skill mobilization. The MSME sector is an important pillar of the Indian economy as it contributes a lot to its growth and it has emerged as an important instrument to achieve the inclusive growth of the country. This paper attempts to focus on the contribution of MSMEs in the growth of the Indian economy as well as its current scenario in the country.

Objectives of the study

1) Understanding the definition of MSME.
2) Role of MSMEs in contributing to GDP and GVA in the India.
3) To study the needs and importance of MSMEs.
4) The researchers will also look at the state-wise distribution of estimated MSMEs.

Need of the study

1) There is a need for MSMEs in India, as they contribute to increasing employment and economic growth in the country.
2) MSMEs improve national development by enhancing urban and rural development.
3) MSME offers opportunities in the form of both self-employment and entrepreneurship. Thus, helps individuals to earn and improve their standard of living.
4) Additionally, these sectors contribute to the country's GDP leading to growth at the national level, so as to create more employment opportunities.
5) MSME aims to help develop rural and less developed areas, and reduce regional imbalances.
6) To ensure optimum utilization of the untapped resources to the region.

Importance:

1) First, MSMEs are important for employment generation. They provide employment opportunities in local communities and are often an important source of jobs in rural or underdeveloped areas where opportunities to work in large corporations are not available, by creating jobs there, MSMEs, reduce the unemployment rate and stimulate economic growth. Additionally, entrepreneurship drives innovation and encourages the creation of new industries and markets, leading to further job creation and economic growth.
2) Secondly, MSMEs are vital for economic growth. They generate revenue and expand into new markets, investing in new technology and infrastructure that can create a positive impact throughout the economy. Small businesses drive competition, which can lead to lower prices and higher quality products and services. Additionally, they are often at the forefront of innovation, developing new products, services, and business models and encouraging growth.
3) Third, MSMEs are essential for community development. They provide goods and services that are tailored to the needs of the community and often support local charities and organizations. By sourcing materials and labour locally, they can stimulate the local economy and help build strong, sustainable communities. Moreover, MSMEs are often owned and operated by community members, creating a sense of pride and ownership in the community.

State-wise employment in MSME: State/UT wise total number of persons employed in MSMEs registered under Udyam Registration Portal.

Table No. 1 State/UT wise Total no. of persons employed in MSMEs Registered under Udyam Registration Portal

Sr. No.	State/UT Name	2020-21	2021-22	2022-23	2023-24*	Total
1	**Andhra Pradesh**	709811	1231311	2745495	727568	5414185
2	**Arunachal Pradesh**	14694	20152	35406	8677	78929
3	**Assam**	234963	561497	956912	394341	2147713
4	**Bihar**	694423	1447440	2175714	606625	4924202
5	**Chhattisgarh**	282710	398414	556453	162031	1399608
6	**Goa**	64757	59265	82455	21968	228445
7	**Gujarat**	2466078	2241194	2439554	822168	7968994
8	**Haryana**	1284400	1175432	1255892	465005	4180729
9	**Himachal Pradesh**	140826	175196	199516	118312	633850
10	**Jharkhand**	379680	683346	922057	246818	2231901
11	**Karnataka**	1957273	2757427	3578112	1311507	9604319
12	**Kerala**	674974	763846	851407	236464	2526691
13	**Madhya Pradesh**	826879	1400971	1823041	524148	4575039
14	**Maharashtra**	4458451	4566130	4890908	1442862	15358351
15	**Manipur**	91176	118058	147183	17365	373782
16	**Meghalaya**	7340	18757	31128	11606	68831
17	**Mizoram**	9499	20606	69215	18488	117808
18	**Nagaland**	7916	26062	46227	18681	98886
19	**Odisha**	576236	958600	1295934	406823	3237593
20	**Punjab**	913645	934704	1161308	481552	3491209
21	**Rajasthan**	1547664	2457478	2816087	831202	7652431
22	**Sikkim**	3412	10429	15247	7488	36576
23	**Tamil Nadu**	3335236	4054934	4662649	1474860	13527679
24	**Telangana**	1648221	1982579	2677513	875418	7183731
25	**Tripura**	15196	83737	179287	33383	311603
26	**Uttar Pradesh**	2090951	2832512	4171713	2209675	11304851
27	**Uttarakhand**	217210	403177	401591	124721	1146699
28	**West Bengal**	1107009	2049849	2932684	752510	6842052

29	**Andaman and Nicobar Islands**	10248	173158	35782	5491	224679
30	**Chandigarh**	103597	67930	69163	19223	259913
31	**Delhi**	1333992	1189801	1236440	814990	4575223
32	**Jammu And Kashmir**	190902	385608	698551	234669	1509730
33	**Ladakh**	4978	11484	13779	3751	33992
34	**Lakshadweep**	220	811	1375	212	2618
35	**Puducherry**	39392	55711	57259	21212	173574
36	**The Dadra And Nagar Haveli and Daman and Diu**	66442	47643	42783	12397	169265
	Total	**27510401**	**35365249**	**45275820**	**15464211**	**123615681**

from 01.07.2020 #up to 01.08.2023

Source: Ministry of Micro, Small & Medium Enterprises:

The table show the data of total no. of persons employed in MSMEs registered under Udyam Registration Portal of 36 state in Uttar Pradesh. Out of 36 states shown in the table, top 10 states provide employment to maximum number of people through MSMEs, which are as follows – Maharashtra, Tamil Nadu, Uttar Pradesh, Karnataka, Gujarat, Rajasthan, Telangana, West Bengal, Andra Pradesh and Delhi, out of which Uttar Pradesh is in third place. MSMEs provided employment to 2090951 persons in 2020-21, 2832512 in 2021-22, 4171713 in 2022-23, 2209675 in 2023-24* and a total of 11304851 persons in Uttar Pradesh.

MSMEs contribute significant to the economic and social development of the country by encouraging entrepreneurship and creating large employment opportunities at affordable capital cost. They are expanding their economic sphere of influence, designing a diverse range of products and services to meet the need of both domestic and foreign market. MSMEs are contributing significantly to the expansion of entrepreneurial efforts through business innovations. Contribution of MSMEs to the county's Gross Value Added (GVA) and Gross Domestic Product (GDP) at current prices from 2014-15 to 2018-19 is as follow:-

Contribution of MSMEs in GDP and GVA:

Table No. 02 Gross Value added (GVA) of MSME in all India GDP

Figures in Rs. Crores adjusted for FISIM at current Prices						
Year	**Total MSME GVA**	**Growth (%)**	**Total GVA**	**Share of MSME in GVA (%)**	**All India GDP**	**Share of MSME in All Indian GDP (%)**
2014-15	3658196	-	11504279	31.8	12467959	29.34
2015-16	4059660	10.97	12574499	32.28	13771874	29.48
2016-17	4502129	10.9	13965200	32.24	15391669	29.25
2017-18	5086493	12.98	15513122	32.79	17098304	29.75
2018-19	5741765	12.88	17139962	33.5	18971237	30.27

Source: Annual report 2020-21, Ministry of Micro, Small and medium Enterprises

The above table gives data on the share of Gross Value Added (GVA) of MSMEs in All India GDP. The share of MSMEs in GVA was 31.80% and the share of MSMEs in all-India GDP was 29.34% in 2014-15. This increased to 33.50% in GVA and 30.27% in GDP in the year 2018-19[*10]

Conclusion:

MSMEs have played an important role in the development of the Indian economy after the trade reforms in 199. There's significant contribution of MSMEs to GDP and GVA. To achieve fair distribution of income and wealth, economic self-sufficiency and economic sustainable development, it is necessary to advance MSMEs for the development of the Indian economy. For the upliftment of MSME units, introducing MSMED Act 2006, was an important measure taken by the government as it provides freedom to the already existing small scale industries to upgrade themselves to medium units as per the maximum limit of investment and avail various facilities. Also, there's no obligation of registering the MSMEs as the registration part was replaced by a memorandum. Now MSMEs can take advantage of the act as soon as they are established. Another major benefits to MSMEs under the act is quick dispute resolution. MSME facilitation councils have been set up and they help in speedy settlement of disputes in the sector. It also encourages various procurement agencies to make timely payments to MSMEs. Even if an MSME unit wants to go for liquidation, it can easily do it under this act.

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An Analytical Study of the Women Leadership & Empowerment Strategy in Present Scenario

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Abstract:

Women in India now participate fully in areas such as education, sports, politics, media, art and culture, service sectors, science & technology, etc. Indira Gandhi who served as prime minister of India for an aggregate period of fifteen years, is the world's longest serving woman prime minister. But many women are not aware of their rights. Thus the move to enforce laws must be accompanied by a movement to bring about an attitudinal change in our society. There is a need of strengthen women to independently struggle for her existence. The Presence of women in leadership roles fosters a culture of inclusion, inspiring to dismantle the systematic barriers that hinder progress. However, the journey to breaking the glass ceiling is not without obstacles. In this present research study the researcher has focused on the current status of the women leadership and need for empowerment of them. Because women in India are continued to be discriminated even after so many years of Independence. Many women are not aware of their rights. Thus the move to enforce laws must be accompanied by a movement to bring about an attitudinal change in our society. There is a need of strengthen women to independently struggle for her existence.

Keywords: Social evolution, parent's attitude, gender discrimination, Constitutional provisions, policymakers, Justice, Opportunities, Participation, Existence.

Introduction:

Women have historically been under represented in leadership across private and public organisations around the world. Psychological research shows women leaders improve businesses. Experts share how to increase the number of women in leadership roles.

Indian social evolution has been a rather interesting process, for it has obviously gone beyond simple social organization to systems, if clearly favouring men which have kept in some perspective the vitally important aspects of human harmony necessary for a race and civilization to continue. After 75 years of independence, women in India are still not empowered. Lack of proper education, segregation from the employment market, high morbidity and mortality rates, increasing violence against women and their sub minimal participation in decision making processes reflect their present status. Though the government efforts no doubt welcome, the achievement cannot be at such at early date. Parents play an important role in the process of empowerment of women. Unless and until parent's attitude is not changed towards their girl child, aim of women empowerment will not be fulfilled. Today there is a demand for education and health among girls and women.

Objectives of the Study:

1) To study the role of women leadership in nation building
2) To study the various problems of the women.
3) To study the need for empowerment of women.
4) To examine the ongoing approaches and strategies for the leadership of women.
5) To understand the concept of leadership of women, its varied components and aspects.
6) To know the Constitutional Provisions for women empowerment.
7) To discuss the various challenges before the women in India.

Hypothesis:

1) Women are not active in participants in selecting leaders in the ratio of need.
2) Women politicians will continue to face different barriers and certain disadvantages before and after taking political office
3) Women in India are continued to be discriminated even after so many years of Independence.
4) Provided equal opportunities to women, protect their rights and ensure justice to them by Indian Constitution**.**

Research Methodology: The Researcher has used the Primary and Secondary method of data collection. The primary sourced of data is collected by social and personal observations and also she has referred the reference books, articles and internet websites to collect the secondary data to analyse and conclude the research study.

The Status of Women Leadership in India:

Women in India now participate fully in areas such as education, sports, politics, media, art and culture, service sectors, science & technology, etc. Indira Gandhi who served as prime minister of India for an aggregate period of fifteen years, is the world's longest serving woman prime minister. Women in leadership roles are at an all-time high. Still, stereotypes and lack of support impact their growth and influence, leading to blockages and needless challenges. Female leaders continued growth in high-ranking roles calls for a movement of all genders to practice leadership styles that propel women in business for greater personal and organisational success.

Problems of women in India:

Many women are not aware of their rights. Thus the move to enforce laws must be accompanied by a movement to bring about an attitudinal change in our society. There is a need of strengthen women to independently struggle for her existence. In India, there is growing a realisation that the women education is of great importance to the healthy development of the social & the national life. Efforts are being made to provide Schools, for all the girls of school going age and to give incentives to them to learn. But even though Crimes against women, Acid Throwing, Child Marriage, Domestic Violence, Physical and Emotional abuse, Sexual Assault, Dowry, **Sexual Harassment within the Workplace**, **Lack of Promotional Opportunities**, **Discrimination**, etc. are the various problems facing women in their day to day life. One of the reasons of this is India is a society where the male is greatly revered. Therefore women, especially the young girls, get very little respect and standing in this country. Women are getting enrolled in higher educational institutions to enhance their academic skills and abilities.

Economic and Employment Status of Women in India:

India is a developing country, which depends very much on its vast potential of human resources, if these resources are properly tapped the country is bound to progress efficiently, effectively and rapidly. Women from the most important part of the human resources of the nation and they may contribute very substantially in building a strong, powerful and affluent nation. They can, however, make their best contribution when they are properly educated and are able to explode the myths, which have kept them in a state of backwardness and neglect. In India, women development policies have undergone tremendous changes and even the State Policy has become somewhat more pro-women. The policymakers in India began to perceive social and economic development through the angle of women empowerment recognising women as active agents, participating in a guiding their own development.

Why women Empowerment?

Though the constitution is prohibiting discrimination on the grounds of sex, the women in India are continued to be discriminated even after so many years of Independence. Women empowerment is required most, because of the big gender gap or larger gender discrimination in the context of existing economic and other decision making processes which render the women voiceless and restricting their activities to the domestic sphere.

Leadership & Empowerment of women:

Women leaders contribute diverse perspectives, decision-making styles and leadership behaviours, leading to innovation, resilience and enhanced financial performance. They also strengthen corporate governance, promote ethical standards and sustainability, and foster transparency and stakeholder engagement.

Leadership: The Presence of women in leadership roles fosters a culture of inclusion, inspiring to dismantle the systematic barriers that hinder progress. However, the journey to breaking the glass ceiling is not without obstacles. Today, women are spearheading multinational corporations, leading successful start-ups, making impactful policy decisions, and influencing various domains traditionally dominated by men. They bring unique perspectives, empathy, and collaborative approaches to leadership, challenging conventional practices and driving innovation.

Empowerment: Empowerment is multidimensional process that enables human beings to establish their full identity and acquire adequate powers in every situation of life.

Women Empowerment & Constitution of India:

Constitution of India guarantees equal status to all citizens of India including women under article 14 and does not distinguish or discriminate between a man and a woman. Moreover, article 15 empowers the government to make special provisions for women. Women are free to participate in all the religious, cultural, economic and political activities. As per the act, ⅓ of seats are reserved for women in addition to the seats reserved for SCs and STs. It was indeed a bold step. The rural women will also be now able to exercise some political power and play a role in decision making for village affairs. Furthermore, they have been entitled to vote and are provided with other special benefits. The constitution protects women against exploitation and ensures that they are been given equal rights and opportunities being it any field.

Conclusion:

After 75 years of independence, women in India are still not empowered. Parents play an important role in the process of empowerment of women. Unless and until parent's attitude is not changed towards their girl child, aim of women empowerment will not be fulfilled. There are only a few women as these are only a few men who have the mental capacity for though in the creative sense, so to escape, some take to religion and meditation, they only excuse an Indian family will tolerate. Though the constitution is prohibiting discrimination on the grounds of sex, the women in India are continued to be discriminated even after so many years of Independence. Thus, the self-confidence within the women is the first requisite to bring bottom up changes in our society. Her suppression, lack of education and knowledge and fever opportunities to interact with the society has deprived of her self-confidence.

Suggestions:

1) Knowledge creation through research to inform policy and industry.
2) Building alliances to promote inclusion of women in the economy.
3) The curriculum of school and college level should inculcate values of gender equality, self-respect, courage, independence, role of the women as the saviour of human society etc, which would help develop the personality of women.
4) The women need to be trained in the art of administration, politics, finance and the cybernetics of development.
5) Many women are not aware of their rights. Thus the move to enforce laws must be accompanied by a movement to bring about an attitudinal change in our society.
6) There is a need of strengthen women to independently struggle for her existence.

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Chronic Disease Conditions of Elderly People Living with Hypertension

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Abstract:

This study investigates chronic disease conditions, specifically hypertension, among the elderly in Karnataka's Koppal district, covering both urban and rural areas. Utilizing a descriptive research design, it purposively sampled 50 participants to assess hypertension's prevalence and management. The research involved face-to-face interviews and data analysis using SPSS. Results highlight a demographic majorly comprising females (60%), within the 60-74 age range (72%), of Hindu faith (72%), residing in rural locales (72%), with a notable rate of illiteracy (56%). Management insights reveal most respondents are in early-stage hypertension (63%) and under medication (97%), yet gaps in self-management are evident with infrequent blood pressure monitoring (17% never) and minimal dietary changes (77% none). Despite these challenges, a significant majority have avoided severe hypertension complications (87%). The findings underscore the importance of bolstering patient education and healthcare support to enhance self-management practices, mitigate health risks, and elevate the elderly's quality of life, pointing towards a pressing need for comprehensive healthcare strategies tailored to this demographic's unique needs.

Keywords: Chronic disease, Old Age, Hypertension, Health Conditions

Introduction:

Hypertension is a major chronic condition prevalent among the elderly, posing significant challenges in geriatric health and public health sectors due to its complex management requirements and its role as a leading contributor to cardiovascular diseases, as noted by the World Health Organization (WHO). The condition affects over a billion people globally, with a substantial proportion being individuals over 60, highlighting the critical need for effective management strategies. The aging process introduces physiological changes, such as increased arterial stiffness and reduced baroreceptor sensitivity, complicating blood pressure regulation. The multifaceted impact of hypertension includes heightened risks of heart disease, stroke, renal failure, and cognitive decline, significantly impairing quality of life and independence. The management of hypertension in the elderly is further complicated by comorbidities like diabetes and obesity, necessitating a comprehensive approach that encompasses both pharmacological treatments and lifestyle adjustments. Achieving optimal hypertension control is challenging due to factors such as under-diagnosis, polypharmacy, and the necessity for tailored treatment plans that account for the individual's health status and socio-economic factors, emphasizing the need for enhanced patient education and healthcare access to mitigate hypertension's adverse effects on the elderly population. Hypertension affects approximately two-thirds of people over the age of 60 worldwide, making it one of the most common chronic conditions in the elderly. In the United States alone, the prevalence of hypertension among those aged 65 and older is estimated to be around 63%. This high prevalence contributes significantly to morbidity and mortality rates in the elderly, as hypertension is a major risk factor for cardiovascular diseases, stroke, and kidney disease. Globally, efforts to improve blood pressure control in the elderly are crucial for reducing the health burden associated with this condition.

Objectives of the study:

1) To Study the socio-demographic profile elderly people
2) To Study the chronic disease conditions of elderly people

Methodology:

This research article employs a descriptive research design to investigate the chronic disease conditions of elderly people living with hypertension. The study forms part of the pilot phase of the researcher's PhD research, conducted in the Koppal district of Karnataka, which encompasses both urban and rural areas. A purposive sampling technique was applied to select a sample of 50 participants, aiming to provide a comprehensive overview of the target population's health conditions related to chronic disease. Data collection was conducted through face-to-face interviews, utilizing a questionnaire developed by the researcher to gather detailed information. The collected data was then analyzed using the Statistical Package for the Social Sciences (SPSS) software. To present a clear picture of the participants' characteristics, descriptive statistical methods, including frequency distributions, were used. This approach allowed for an in-depth understanding of the physical and chronic disease conditions of elderly individuals in the specified geographic area, contributing valuable insights to the field of geriatric health research.

Results:

Table no: 1- Socio-demographic profile of the respondents

Variables & Values		Frequency	Percentage%
	Male	20	40%
Gender	Female	30	60%
Age	60 to 74	36	72%
	75 to 84	11	22%
	85 & above	3	6%
Religion	Hindu	36	72%
	Muslim	12	24%
	Christian	2	4%
Residence	Rural	36	72%
	Urban	14	28%
Education	Illiterate	28	56%
	Primary	13	26%
	Secondary	4	8%
	Inter(PUC)	3	6%
	Graduation and above	2	4%

The table 1 provides a demographic snapshot of the study population, revealing key characteristics such as gender distribution, age groups, religious affiliation, residence, and educational attainment. The majority of respondents are female (60%) and fall within the age range of 60 to 74 years (72%), indicating a significant representation of elderly individuals. Additionally, the majority identify as Hindu (72%) and reside in rural areas (72%), underscoring the predominance of certain demographic factors within the population. In terms of education, a substantial portion of the population is illiterate (56%), with smaller proportions having attained primary, secondary, or higher education levels. These findings offer valuable insights into the demographic composition of the study sample, which may have implications for understanding health behaviors, access to healthcare services, and potential disparities within the population.

Table No:2-Chronic diseases conditions of old age

Variables	Values	Frequency	%
Which stage of hypertension are you currently in?	Early	19	63
	Middle	11	37
How long have you been living with hypertension?	Less than 1 year	11	37
	1 to 5 year	14	47
	5 to 10 year	2	7
	More than 10	3	10
Are you currently taking any medication to manage your hypertension?	Yes	29	97
	No	1	3
How frequently do you monitor your blood pressure?	Weakly	1	3
	Monthly	24	80
	Never	5	17
Have you made any dietary changes to manage your hypertension?	Yes, I have reduced my salt	3	10

	intake		
	Increased my intake of fruits and vegetables.	4	13
	No, I have not made any dietary changes	23	77
Have you experienced any complications related to your hypertension, such as heart problems or kidney issues?	Yes	4	13
	No	26	87
Have you experienced any other health conditions as a result of hypertension	Yes, I have developed heart disease	2	7
	Yes, I have had a stroke	2	7
	No, I have not had any health problems	26	87

The table 2 reveals that varied practices and outcomes among individuals with hypertension, highlighting key aspects of disease management and its implications. A significant majority (63%) of respondents are in the early stages of hypertension, with a varied duration of condition management, ranging from less than a year to over a decade. Notably, a vast majority (97%) are under medication to manage their condition, reflecting a high reliance on pharmacological interventions. Despite this, blood pressure monitoring practices vary, with a striking 80% conducting monthly checks, yet a concerning 17% never monitor their blood pressure. Dietary modifications, an essential aspect of hypertension management, appear to be underutilized, with 77% reporting no changes in their diet, suggesting a potential gap in comprehensive disease management strategies. Furthermore, while the majority (87%) have not experienced hypertension-related complications, a small yet significant proportion have faced severe health issues such as heart disease and stroke (7% each), underscoring the critical need for effective and holistic management approaches. This analysis uncovers critical insights into patient behaviors and health outcomes, emphasizing the importance of enhancing patient education and support mechanisms to foster better self-management practices and mitigate the risk of severe complications associated with hypertension.

Discussion:

This research reveals critical insights into the socio-demographic traits and hypertension management among elderly individuals, showing a dominance of female participants (60%) and a major age group of 60 to 74 years (72%). The demographic skew towards older women in rural areas (72%), with a significant portion being illiterate (56%), introduces specific challenges in managing hypertension effectively. These challenges are compounded by the diversity in religious and educational backgrounds, demanding healthcare interventions that are sensitive to the cultural and socioeconomic fabric of this community. Management practices heavily rely on medication (97%), yet gaps in essential lifestyle modifications, such as diet and regular blood pressure monitoring—where 17% never monitor their blood pressure and 77% have not made dietary changes—point to a critical need for enhanced awareness and resources. With 63% in the early stages of hypertension, there's a pivotal opportunity for early intervention, yet the presence of severe health complications in a minority underscores the dire consequences of negligence. The study accentuates the urgent need for culturally tailored educational programs and healthcare services that address the unique needs of this demographic, emphasizing non-pharmacological measures alongside pharmacological treatments to improve hypertension management and elevate the quality of life for the elderly afflicted by this condition.

Conclusion:

This investigation into hypertension management among the elderly reveals critical findings, notably the high proportion of female participants (60%) and the substantial representation within the 60 to 74 age bracket (72%). These insights underline the urgent need for healthcare strategies that are not only comprehensive but also culturally sensitive, addressing the specific socio-demographic characteristics and management practices of this population. The study strongly advocates for the integration of non-pharmacological interventions with traditional medication approaches to improve the overall quality of life for the elderly dealing with hypertension. It highlights the necessity of educational programs and healthcare services that are tailored to meet the unique needs of the elderly, emphasizing the significant impact that such tailored approaches can have on managing this chronic condition more effectively. The findings serve as a call to action for the development of healthcare policies and practices that are attuned to the complexities of hypertension management in older adults.

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Climate, Nature and Kerala Elegance: A Study of Kamala Das' Poem *the Rain*

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Abstract:

Kerala is famous for its flora and fauna and exquisite climatic conditions with abundance of rain continuing for more than six months in a year. The geographical significance and the climatic conditions of the state helped in the different manifestations of development of the state to excel the fellow states of the country. The presence of rain and the changes happening in the nature of the state has become as subject for the creative writers, both from the state and from abroad. Kamala Das, in her poem *The Rain* touches upon the aspect of the Kerala background with reference to the instance loss and the blend of nostalgia. The change in geographical set up mentioned in the poem created ripples in the life of the narrator in the poem and the significance of rain in the poem is associated with the happenings mentioned in the poem. The present paper is an analysis of the portrayal of rain with ecstatic climatic conditions of Kerala in the poem *Rain* by Kamala Das.

Keywords: Rain, Kamala Das, Kerala, Climate, Elegance.

Introduction:

Kerala is famous for its ecstatic climatic conditions and elegant flora and fauna which claimed it the title of 'God's Own Country'. The geographical peculiarities of the state with different varieties of mountainous regions, lowlands, valleys and forests have given the state as specific position among the fellow states of the country and it became a centre of attraction for different tourist from across the world. The abundance of rain and the availability of groundwater in almost all parts of the state make the state a significant region for the abundance in rich natural resources. The state is rich with 44 rivers meandering in different directions and reaching the seas which supply nutrients and life for the different living beings of the state. Along with the rivers, lakes, ponds, wells and rivulets enrich the soil with affluent, flora and fauna and varieties of fruits, flowers, grains and grasses.

The geographical significance and abundance of water, rain, water bodies, and the exquisite climatic conditions of the region has helped in the creation of a literary pieces which portray the exact picture of the region with the blend of imagination. Kerala has produced canonical figures in literature and different genres produced extraordinary writers who picture the lives of the region in order to amuse the lovers of literature, especially in the language of Malayalam. They gave birth to stories, novels, poems plays and non-fiction. Writings evolved from the soil of Kerala even from the colonial period and the march towards excellence is still continuing with the epoch making literary pieces oozing from the very veins of the state of Kerala. The exposure to the outside world, the access to the modern education system and the advancement in science and technology helped the writers from Kerala to have a global exposure and it has helped to attain global attention towards the region and the literature of the state. Though the language is nascent when compared to the other regional languages of the country, Renaissance and reformation in the region and the higher rate of literacy and political awareness created literary pieces to amuse the world of literature. The access to modern education system and attainment of English language as a medium of expression in literature created writers who expressed themselves and about the region in the language of the globalised world. The expression of Malayalam writers in English attracted world attention and investigations and explorations towards the life of the people and the peculiarities of the region became a topic of discussion among the critics and think tanks of the literary world.

The Poetic Universe:

The most prominent figure in Malayalam literature to express the personal affairs and the peculiarities of the region was none other than the great poet Kamala Das. Kamala Das was born in the Malabar region of Kerala and her exposure to the model education system and her access to English language because of her educated and progressive parents helped her in creating a language and identity of her own expressing in English language through her poetry. She is famous for her confessional poems, which expose her inner self and her peculiarity is mounted with the speciality of portraying her on locality and regional specifications in her poems. She is globally renowned as the confessional poet, which is a peculiarity for her poems which expresses the inner self of a woman and the bodily privacies of the women in Kerala. She boldly express the yearning for love, urges and thirst of women's body in her poems and expressed frankly about her inner feelings, thoughts, emotions and dreams. "It is a part of the strength of Kamala Das's exploration of love-theme that it also follows her compulsions to articulate and understand the workings of the feminine consciousness" (Kohli 188).

She expressed herself in her poems in a specific moment of time were majority of the women of Kerala were not given the opportunity to have modern education and access to the attainment of English language. The access to education and attainment of language proficiency was a dream for the women of the time, but Kamala Das accomplished in establishing her own identity among the poets from Kerala and also among the Indian English poets of the time. She was courageous enough to express the peculiar ways of her body, her private moments and the privacies of women's body, including menstruation, sex, and the private moments of an individual as a woman. The main significance of her poems of is that it is attached to the soil where she belongs. The poems express the significance of the changes happening in the atmosphere of the region along with the changes happening in the body of a woman. Most of the poems of Kamala Das revolve around the life of a woman in the poet and it also explains the external significance of the region of Kerala.. Through her poems, she expresses the experience of the people of Kerala and the struggles she has taken to establish her identity in the soil, which is notorious for its suppression of women and the discrimination based on gender. She wrote her poems and began her literary career in a specific time when patriarchy was at its zenith, which blocked the women from accessing education and exposure. The poem *The Rain* by Kamala Das is a wonderful experience of the narrators experience with rain and nostalgic feeling about the house. The poem is significant with the explanation of the changing of a house from the old one to the new one. The poem begins with the portrayal of leaving the old house where the pet dog died and buried near the house. " We left that old ungainly house/ When my dog died there…" (1-2). The narrator explains the burial of the dog beside the old house and flowers were showered on the burial ground and the family along with the narrator moves away from the old house to the new house after/ The burial, after the rose/ Flowered twice,… (2-4). The shifting of the house was in a hurry and they were shifting books, clothes and chairs and all amenities of the home along with the roses plucked with its plants. "… pulling it by its/Roots and carting it with our books,/Clothes and chairs in a hurry…" (4-6). The narrator says that they are living in a new house where the stay is much safer and better because the rooms of the house will not be leaking in the rain. The narrator says of the old house when it rains and she finds it falling because of the heavy pouring rain. The house fell down to the ground where the dog was once buried.

We live in a new house now,
And, the roofs do not leak, but, when
It rains here, I see the rain drench
That empty house, I hear it fall
Where my puppy now lies,
Alone. (7-12)

The portrayal of rain in the poem brings about the theme of Malayali experience of rain and nostalgia revolving around the geographical significance of rain in the Kerala soil. Kerala is peculiar with six months of continuous rain with difference in magnitude and the thoughts, feelings, imaginations and dreams revolving around it. The rain and experiences of the rain evokes the minds of Kerala people and it is well portrayed in the poem by Kamala Das. The Kerala experience of rain starts from the Malayalam month of *Edavam* which is almost equivalent to the month of the beginning of June. *Edavapathi* or the middle of the month of Malayalam calendar month *Edavam*, and the downpour of water will continue with its might until *Karkidagam*. The heavy downpour of water for three months will fill the low lands and the water bodies which were suffering from the droughts of the summer. The plants, leaves, trees and a living organism will enjoy the surplus of rain. The new regeneration of living beings will be experienced in this month. This is also the time of blooming of love and affection along with the cool atmosphere, and the caress of the atmosphere on the bottom of the Earth. After *Karkidagam* the rain shows it mild face in *Chingam* and *Kanni* and retains its violence in the culminating month of *Thulam.*

The downpour of water from the heavenly showers to the very heart of Kerala soil, without any hindrance, became the pivot of discussion for many literary pieces and the poem rain by Kamala Das brings back the memory of the Malayali experience of rain along with its nostalgia. The downpour of water begins along with the preparations for agricultural labour and going back to the memory of the past brings out the times of the penury and hardships brought about by the downpour of rain into the huts and howls of the lower class labourers. In the past, experience of the rent for the lower class people was of difficulties and problems where their houses will be leaking in different places and sleeping in the adverse conditions will be tough for the lower class. People who are living in poverty and hardships curse the rain for bringing adversity and hunger. The poem *The Rain* points to the Kerala experience of this poverty and hardships brought about by heavy downpour water. So the nostalgic imagination and romantic experience of rain which is the major pivot of discussion among the writers of Kerala is having another picture which is of hardships and difficulties brought about by the violence of rain and thunderstorm.

In the poem Kamala Das blends imagination along the tint of reality, while she is thinking of the romantic relationship with the loving dog, along with the leaking house in the rain. The experience of the rain of the past is peculiar with the leaking houses, as majority were living in poverty. So their major challenge in the rain is of the draining houses and their efforts and sacrifices for tackling the challenge in the form of water. Kamala Das brings out the romantic experience of rain along with the harsh reality which is brought about by the downpour of water to the very soul and soil of the region. Though many writers of the time in contemporary Kerala brings out the romantic experience of rain, the real experience on the rain of the past is that of people unfurnished or unfurnished house with minimum facilities. The downpour of water brings hunger to the lower class people because they won't be able to go out for their labour. Those who work in the fields under the feudal lords and the landlords of the region won't be able to work in the heavy rain and the rain experience of the lower class is about hunger and loss of jobs.

Das is bringing out the picture of falling of the old house at the place where the old dog was buried. It shows the passing of time and the change in the lifestyle of the narrator shifted towards the new house with much more facilities and amenities. The transition of Kerala people's lives from the poverty and hardships to better living conditions is also portrayed in the poem. The change in the lives of the people and their fight against the downfall of water happened as a result of many changes happening in their life. The poverty and hardships were the results of the exploitative the feudalism and the suppression in the name of caste discrimination. The colonial powers were also oppressing the lower class people with their iron hands.

With the attainment of freedom the challenge of colonisation got wiped out from the lives of the people and caste system and feudalism got eradicated from the Kerala soil. The migration to the Gulf countries brought about progress and economic development in the regions and the people were able to experience new possibilities of living with the better living conditions. "It was the oil boom in the Middle East since the early 1970s that made the big difference" (Harilal 7). "...millions of Keralites have migrated to the Gulf for higher paying and more attractive employment opportunities" (Tsai 231). Those who are living in the huts and hovels in the time of colonisation and feudalism were able to dream about the new houses without leaking and the problems of the heavy downpour of rain. According to Balasubramanyam Pattath "The fruits of their labour transformed not just their families but also contributed to building a new Kerala...."(2021). This change in the lifestyle of housing changed the attitude towards rain because downpour was not bringing problems in their lives because of the poor conditions of the houses. The problems because of the rain are only towards the people who are living in the low lands who are challenged by the repeated floods.

So along with the change in lifestyle of the people and with the economic development of the region attitude towards the rain also changed. The experience of the rain is having an evolution from hardship, to a nostalgic feeling of bringing about growth, vegetation and prosperity in the soil and minds of the people. The experience of the rain differs with the difference in class, caste and living conditions and the people. Experience of the rain bringing about hardships for the lower class changed with the development in the society of Kerala. Better experience of the rain in the past was only the right of the people who were able to enjoy better living conditions in the form of better housing facilities. The realistic experience of the rain was for the lower class people who were suffering because of their bad living conditions. But most of the writers of the time portrayed the nostalgic experience and romantic feelings revolving around the experience of rain.

Conclusion:

Kamala Das brings about the realistic experience of the lower class towards the rain and brings about the feelings revolving around the Malayali experience by the blend of romanticism and realism. So the poem *The Rain* can be analysed as a real blend of romantic impulses and the realistic experience. The transition from the olden time to the new Malayali living conditions is evident with her portrayal of the change from the old house to the new house. The falling of the old house can also be a portrayed as the change happening in the living conditions of the people were they were able to keep away from the penury and hardships of the old times and they were able to live a life of dreams and feelings in the new conditions experiencing the romantic feeling towards the rain.

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Study on Pollution in India

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Abstract:

Pollution is very dangerous and killing thing which can harm living beings like human, plants and animals' etc. pollution is also caused by chemical. People are affected by various diseases due to pollution. Disease like asthma is mostly caused by pollution. Pollution is released by various things like car which are used by human, run by petrol and when the engine starts it release smoke which pollute environment which causes air pollution and through that car noise pollution is also made. Most of women in villages go to lake to wash cloths and this activity causes water pollution. In India the 51% of pollution is caused by the industrial pollution and 27% is caused by vehicles, 17% due to crop burning, 5% by fireworks. Air pollution causes 2 million Indians deaths every year.

Keywords: Pesticides, Destruction, Illegal, Legacy, Contamination, Harvester, Disturbance.

Introduction:

India is recorded as one of the most polluted country. Many poor people get ill by disease but they do not have money to pay in hospital. Many sugar cane factories pollutes smoke which create air pollution then waste and pollute water if water gets destroyed it is very difficult to restore them as natural takes more than year to restore. In our celebration we use DJ that creates noise pollution, many old age people gets heart attack due to over volumed sound. There are many types of pollution which causes many negative things which will impact on the human beings. Different types of pollutant particle makes different types of diseases in any dangerous way

Types of Pollution:

1) Air Pollution
2) Noise Pollution
3) Water Pollution
4) Soil Pollution
5) Radioactive Pollution

Air Pollution:

Air pollution is very hazardous thing because most diseases is caused by this pollution. Air gets polluted during the pollution of any burning particle or any dust. Overall the air get polluted because of the industrial areas. This scene is very critical that India is in 5th position in entire world for most air pollution percent. India has 156% of air pollution, which is very vast. Delhi has most percentage of air pollution India. Disease like asthma, lungs problem is usually caused by air pollution. Air pollution is intricately linked with climate change because of both problems come largely from the same sources. Air pollution refers to releases of pollution into the air.

Disadvantages:

1) Many crops which are grown by farmers with hard work and labor.
2) Causes various killing disease like lungs cancer etc.

3) Reduces countries development.

4) Disallows to go outside the house, this does not feel a person fresh.

Noise Pollution:

Noise pollution is released by various things like cars stopped in a traffic uses horn to alert other driver to go ahead, this horn releases noise pollution, high volumed radio creates very much noise pollution and sounds which are used in various occasions is also a harmful thing for nature. Citizen more than 50+ age can cause heart attack due to noise pollution. Some buildings which are weak fall due to huge to huge waves produced by sound, in other words noise pollution is very dangerous for nature, human beings, plants, and animals etc.

Disadvantages:

1) Causes most dangerous diseases like cancer which can kill a human being in a second.

2) Human can fall on mental disturbance.

3) Weak walls can fall.

Water Pollution:

In India most of the water bodies are polluted due to human activities such as chemical waste water, garbage, washing clothes, washing animals, etc. water pollution causes harmful diseases like dengue, malaria, etc. To reduce water pollution we have to take more precautions such as: do not throw any garbage in water body, avoid mixing chemical water waste in rivers. Most of the rivers are polluted which are beside the huge temples. Ganga river get more polluted because of the Char dham and Kashi.

Disadvantages:

1) Causes harmful diseases which can come through water.

2) Polluted water helps to spread the diseases such as: malaria, Dengue.

3) Water pollution depletes aquatic ecosystem and triggers unbridled proliferation pf phytoplankton in lakes.

4) Water pollution will affect o the food chain

Soil Pollution:

soil pollution refers to the destruction or a decline in quality of the earth's surface as a result of human action. soil pollution causes because of mining to agriculture to buildings. soil pollution includes legacy pollution, illegal dumping and litter. Any contamination of the soil and ground caused by human activity. Land pollution is harmful to the environment and ecosystem. soil get polluted because of the chemical or pesticides used in agriculture.

Disadvantages:

1) Damage to health
2) Desertification
3) Climate change
4) Economic impact
5) Poor harvester
6) Loss of fertile land for farm
7) A reduction in the food availability

Radioactive Pollution:

In major ways the radioactive pollution causes because of the over use of the digital gadgets. Increase in modern technology makes the over use of network and radio signal which damage the life of any living being. Moreover cases the radioactive pollution impacts on the birds life. The unconditional releases of radioactive component and the unwanted waste into the land, air, or in the living organism. The radioactive elements causes the reason of releasing ionizing radiation which makes the environment polluted.

Disadvantages:

1) High radioactive pollution could also lead to cancer later in life.
2) Radiation can also damage the DNA cells of our body.
3) Radioactive polluted air or the area can cause the reason to be disable.
4) Radioactive pollution mostly have an impact on the pregnant lady or on the newborn baby.

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Employment and Productivity in the Indian Agricultural Sector

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Abstract -

Although agriculture plays an important role in the Indian economy, the situation is poor compared to other countries, productivity is low. 80 in rural areas: People are dependent on agriculture. Agriculture support industries are also there and most of the people depend on it 25 percent. More people are working in agriculture than required in agriculture, so there are more people than required. Labor, capital, tools e. There is a lack of B-Seeds of poor quality, Indebtedness, Inadequate water supply, Lack of labor, capriciousness of nature, e. Due to which the productivity of agriculture is low. Natural calamities such as heavy rains, storms, locusts. Increasing burden of population, fragmentation of agricultural land, e. There are problems. Due to low productivity, the rural masses are seen living in poverty. Barren land, land incense every year, about 20% of land becomes barren. Indians are victims of superstition. It also does not kill crop-destroying birds and insects. Indian farmers see agriculture as a means of livelihood. But no one is quick to adapt to changes in farming conditions. This was the situation after independence, so the government announced the Agricultural Policy 2000 to eradicate it. The present paper has been written to study this policy.

Keywords: Economy, Agriculture, Livelihood, Agricultural Policy

Explanation –

India is referred to as the second most populous country in the world and feeds a huge part of the population. The agricultural sector plays a pivotal role in the contribution to the GDP of the country since independence. About 59 percent of the country's total GDP was provided by the agricultural sector between 1950-1951.Agriculture is key in all economies no matter what their degree of advancement. It meets a portion of the basic human needs by giving food and non-food needs. More than half of the total population of the country is hired by the agricultural sector. About 55 percent of the total population of India is engaged in the agricultural sector. There is an urgent need to increase the dependency on other sectors of the economy as compared to the agricultural sector. A decent gathering generally stimulates the nation's arranged monetary development by establishing a superior business climate for transportation systems, producing enterprises, homegrown exchange, etc. A decent gathering additionally gives the government huge amounts of cash to cover its arranged costs. Indian economy is predominantly dependent on the agricultural sector and the agricultural sector supports the industrial as well as international trade in both imports and exports. Even though the contribution of agriculture is reducing gradually, it is still the most important sector on which most of the working population depends on.

Objectives –

1) To study the factors of labor productivity in agriculture sector in India

2) Understanding the concept of wage, productivity, employment in agriculture sector in India

Hypothesis – Agriculture sector is an important employment generating sector in the Indian economy.

Research Methodology – Secondary data sources have been used for this research

Reasons for low productivity of Indian Agriculture- Though agriculture is said to be the backbone for our country, we still are lagging Behind many nations in terms of agricultural productivity. The causes for low productivity of Indian agriculture can be divided into three broad categories-

a) General Factors

1. Overcrowding in Agriculture
2. Discouraging Rural Atmosphere
3. Lack of Professionalization
4. Natural Calamities

b) Institutional Factors

1. Defective Land Tenure Structure
2. Lack of Organization

c) Technological Factors.

1. Old Methods of Production
2. Inadequate Irrigational Facilities
3. Lack of Crop Management
4. Agricultural Finance
5. Inadequate Research

Solutions for low agricultural productivity in India-

A good irrigation infrastructure is crucial for monsoon Indian agriculture. Therefore, permanent watering systems should be planned. Many agricultural sprayers can be used for high productivity like orange sprayer and apple sprayer. Quality seeds should be distributed through cooperative groups. Farmers should be made aware of various types of agricultural sprayers and tractor mounted sprayers. Smallholder farmers should be given seed loans. In order to increase the agricultural productivity, the following measures are generally required.

1) Vegetable Fertilizer
2) Credit Resources
3) Marketing for Agriculture
4) Land Improvement
5) mixed farming
6) Education
7) Support to small farmers
8) Fixed price
9) Efficient Administration
10) Low Population Pressure
11) Mechanized Farming
12) Organic Cultivation

Conclusion –

In short, in order to reduce the pressure of the population on the agricultural sector, it is necessary to bring about rapid development of the second (ie industrial sector) and tertiary sector (ie service sector) of the country's economy. Similarly, it is imperative to reduce the birth rate in rural areas to reduce the increasing pressure of population on the agricultural sector. Along with all these, various institutional measures need to be taken. E.g. reform of the land tenure system (i.e. following the principle of land ownership); Providing security to the clans, fixing the quota rates at an appropriate level, spreading at least primary education among the farmers and explaining them the scientific approach to agriculture etc. E.g. Adequate supply of irrigation facilities, modern agriculture - implements and machines, good quality seeds, fertilizers, pesticides, scientifically constructed godowns for storing food grains, adequate credit, guaranteed prices, efficient sales system etc.

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A Comprehensive Review of Peppermint's Many Benefits

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Abstract:

Peppermint (Mentha × piperita) has long been valued for its versatile therapeutic properties and culinary uses. This comprehensive review synthesizes current scientific knowledge on the myriad benefits associated with peppermint, covering its phytochemical composition, pharmacological actions, and diverse applications across health and wellness. The essential oil derived from peppermint is rich in bioactive compounds, such as menthol, menthone, and limonene, contributing to its distinct flavor and aroma. Research indicates that these compounds exert potent antioxidant, anti-inflammatory, and antimicrobial effects, underscoring peppermint's potential in preventing and managing various health conditions. The review explores the impact of peppermint on digestive health, highlighting its efficacy in alleviating symptoms of irritable bowel syndrome (IBS) and indigestion. The modulation of smooth muscle activity, along with its analgesic properties, contributes to peppermint's role as a promising natural remedy for gastrointestinal discomfort. Furthermore, the neurological benefits of peppermint are discussed, with emphasis on its ability to enhance cognitive function, reduce fatigue, and alleviate stress. The interaction between peppermint compounds and neurotransmitter systems suggests potential applications in mental health and cognitive disorders. In the realm of respiratory health, peppermint's bronchodilatory effects and anti-inflammatory properties are explored, showcasing its potential in managing respiratory conditions such as asthma and bronchitis. The review also addresses the emerging evidence on peppermint's role in supporting cardiovascular health through its vasodilatory and antihypertensive effects. Peppermint's topical applications, including its use in aromatherapy and skincare, are discussed, highlighting its cooling and analgesic properties. The antimicrobial activity of peppermint essential oil is explored in the context of skincare, suggesting its potential in managing skin infections. In conclusion, this review underscores the diverse array of benefits associated with peppermint, spanning digestive, neurological, respiratory, and skincare domains. While acknowledging the need for further research, the existing body of evidence supports the integration of peppermint into holistic health and wellness practices. This botanical marvel continues to captivate researchers and enthusiasts alike, offering a natural and multi-faceted approach to enhancing both physical and mental well-being.

Keywords: Mentha piperita, peppermint oil, menthol, herbal tea, tisane, dyspepsia.

Introduction:

The passage discusses the prevalent reliance on indigenous or traditional medicines, particularly those derived from plants, for primary healthcare needs. It notes that approximately 80% of the global population uses these traditional medicines, often involving plant extracts in aqueous solutions. Herbal remedies, prepared through steeping or heating crude plant material, have garnered significant attention and are commonly prescribed, particularly in regions like Europe and Asia. However, while deeply rooted in traditional medicine systems, these practices often lack robust evidence-based research to support their efficacy and safety, relying instead on folklore and ancestral knowledge.

Specifically focusing on the Labiatae (Lamiaceae) family, the passage elaborates on the medicinal properties of mint leaves (Menthaspicata L.). Mint, known for its essential oils rich in monoterpenoids and phenolic compounds, possesses antibacterial, antispasmodic, carminative, and antiviral properties. Peppermint (Menthapiperita), a member of this family, contains compounds such as menthol, menthone, pulegone, menthofuran, and limonene in its essential oil. The composition of peppermint oil varies based on factors like plant development stage, location, and processing conditions, with drying techniques significantly influencing its composition. For optimal essential oil content and concentration of active ingredients, an air temperature of 50°C is recommended during drying. In addition to its medicinal uses, mint is widely cultivated for culinary purposes, with its leaves, extracts, and essential oil utilized in various preparations worldwide. Moreover, research on drying techniques extends to other green leafy vegetables such as amaranth, curry leaves, and gogu (Hibiscus cannabinum). Blanching before drying has been established as a necessary step, with specific conditions such as blanching time, temperature, and treatment solution playing crucial roles in preserving the quality of these vegetables.

Morphological Characters:

Botanical name: *Mentha piperita L.*

Family: Lamiaceae

Properties: aromatic, carminative, anti-emetic, stimulating nervine.

Parts used: aerial portion (mainly leaves, flowers).

Stem: Usually square erect or ascending, slightly branched, and upper portion always quadrangular (Figure 1).

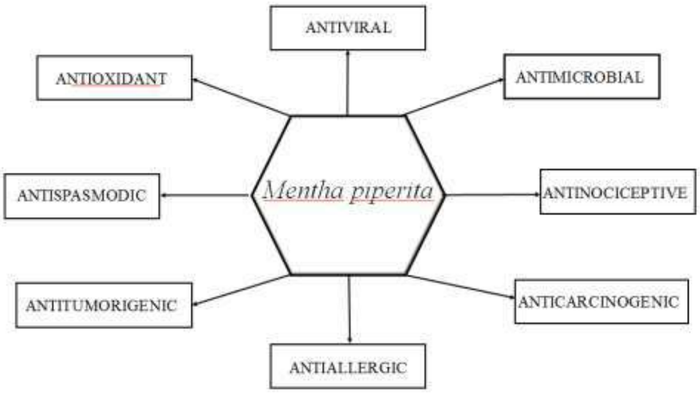
Rhizomes: They are wide spreading and fresh with fibrous roots in the herb.

Flower: It is 6-8 mm long, purplish, occurs in thick, terminal, spicoid racemes of verticillasters. Each flower shows tubular calyx with 5 sharp, hairy teeth along with purplish, irregular, 4 cleft corolla, 4 short stamens, 4-celled ovary, and projecting style ending with bifid stigma in the herb (Figure 2).

Leaves: They are opposite, petiolate having 4-9 cm long and 1.5- 4 cm broad, pointed, and dark green on the upper surface of the herb (Figure 3). Fruit: Fruit contains four ellipsoidal nutlets in the herb, which is pale purplish or pinkish in colour

Figure.1 Peppermint leaves

Benefits:



Chemical constituents:

Peppermint essential oil contains several chemical constituents, each contributing to its characteristic aroma and therapeutic properties. Here are the primary components found in peppermint oil:

1. Menthol (55.0%): Menthol is responsible for the cooling sensation and is often associated with its analgesic and antispasmodic properties.
2. Limonene (1.0-5.0%): Limonene contributes to the citrusy aroma of peppermint oil and possesses antioxidant properties.
3. Cineole (3.5-14.0%): Also known as eucalyptol, cineole has expectorant and mucolytic properties, making it beneficial for respiratory conditions.
4. Menthone (14.0-32.0%): Menthone contributes to the minty flavor and aroma of peppermint oil and may have analgesic and antimicrobial properties.
5. Menthofuran (1.0-9.0%): Menthofuran has been studied for its potential anti-inflammatory and antimicrobial effects.
6. Isomenthone (1.5-10.0%): Isomenthone is an isomer of menthone and contributes to the overall scent profile of peppermint oil.
7. Menthyl acetate (2.8-10.0%): Menthyl acetate contributes to the fruity notes in peppermint oil and may have calming effects.
8. Isopulegol (0.2%): Isopulegol is a precursor to menthol and contributes to the minty aroma.

9. Pulegone (4.0%): Pulegone has a minty odor and is considered toxic in high concentrations but may have insecticidal properties.
10. Carvone (maximum 1.0): Carvone is also found in other aromatic plants like caraway and dill. It contributes to the minty flavor and aroma of peppermint oil.

Peppermint leaves themselves are also rich in various minerals, including sodium (Na), magnesium (Mg), potassium (K), calcium (Ca), chromium (Cr), iron (Fe), cobalt (Co), copper (Cu), zinc (Zn), and selenium (Se). These minerals contribute to the nutritional value of peppermint leaves when consumed as a tea or added to food. Additionally, the leaves provide a refreshing taste and a long-lasting, sweetish aroma when chewed.

Discussion:

Peppermint, scientifically known as Mentha piperita, is a versatile herb that has been cherished for its myriad of benefits for centuries. From its traditional medicinal uses to its culinary applications and even its role in aromatherapy, peppermint offers a wide range of advantages that make it a staple in many households worldwide.One of the most well-known benefits of peppermint is its ability to aid digestion. Peppermint oil contains menthol, which has been shown to relax the muscles of the digestive tract, helping to alleviate symptoms of indigestion, bloating, and gas. Additionally, peppermint tea is often used as a natural remedy for soothing upset stomachs and relieving nausea.Furthermore, peppermint has been found to have antimicrobial properties, making it effective against certain types of bacteria and fungi. This makes it a valuable tool for maintaining oral health, as well as for treating minor skin infections and respiratory issues.In addition to its physical health benefits, peppermint is also valued for its ability to promote mental clarity and alertness. The invigorating scent of peppermint has been shown to enhance cognitive function, improve concentration, and even alleviate symptoms of headaches and migraines. Many people use peppermint essential oil in aromatherapy diffusers or apply it topically to the temples for headache relief.Moreover, peppermint has demonstrated anti-inflammatory properties, which can be beneficial for alleviating symptoms of conditions such as irritable bowel syndrome (IBS), arthritis, and muscle pain. Its cooling sensation can also provide relief from sunburn and itching caused by insect bites.In the realm of skincare, peppermint is often used in various products due to its soothing and cooling effects on the skin. It can help reduce redness and irritation, making it a popular ingredient in products designed for acne-prone or sensitive skin.When it comes to culinary uses, peppermint adds a refreshing and invigorating flavor to dishes and beverages. From teas and desserts to savory dishes and cocktails, peppermint can elevate the taste profile of many recipes. In conclusion, the comprehensive review of peppermint's benefits underscores its remarkable versatility and effectiveness in promoting overall health and well-being. Whether used medicinally, aromatically, or culinary, peppermint continues to be a beloved herb with a wide range of applications and benefits for people around the world.

Conclusion:

In summary, studies on Menthapiperita have highlighted its rich repertoire of bioactive compounds, making it a valuable source of phytochemicals with potential therapeutic benefits for various pathologies. Its diverse range of beneficial effects, including antioxidant, antinociceptive, anti-inflammatory, antimicrobial, anti-carcinogenic, antiviral, anti-allergic, and antitumorigenic properties, suggests its potential in both preventing and treating numerous diseases. Additionally, Menthapiperita shows promise as a cost-effective alternative for use in medicine and the food industry. Further research into its medicinal properties and practical applications could yield valuable insights and innovative solutions.

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Progression of Female Protagonists in Anita Desai's Early Novels

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Abstract:

Like any other individual, a woman also possesses the right to question about the meaning of her existence. A girl needs family support and encouragement to pursue a dream and then transform it into reality. The indifference on the part of family hinders her growth as an individual and mars the development of a thinking mind which could decide. The fact of being a woman acts as an imposing psycho- biological factor and keeps haunting her mind throughout. The failure to achieve and add some value to their existence further drags her into the darkness of alienation. About this traumatic condition, which one suffers, Erich Fromm opined that alienation is a mode of experience where an individual experiences himself as an alien. Little attention has been paid to predicament of women in literature as they have always been seen in relation to men. The traits of sacrifice, devotion and unconditional care is the whole and sole role of woman as portrayed by literary genius. The query on woman's existence is the main thematic concern of Anita Desai works. Absence of relationships, lack of proper communication and rejection of social norms results in the feeling of loneliness. This theme acquires a wide range of meaning in the novels of Anita Desai. The fiction of Anita Desai opens up a landscape of 'being' and 'nothingness' of life. The emotional disequilibrium emerging from confusing states and circumstances of life is the crux of her fictional work.

Keywords: Identity, relationships, existentialist concern, dilemma, loneliness, rejection

Discussion:

The very first novel of Anita Desai, *Cry, The Peacock* portrays Maya the protagonist torn between the blissful childhood and the tormented marital life. She is influenced by the patriarchal society and by men folk right from her childhood. She occupies a centre stage in her childhood. Unwittingly, her father influences her thoughts, her perception and her vistas. Even her brother Arjuna influences her thinking process and infuses his ideas into her mind. Maya's marriage with Gautama is not a satisfactory one in any way. She is an emotional person while he is a pragmatic man. The psychological distance from Gautama torments her. Lacking of compatibility estranges her from her husband. Visages of patriarchy are seen in Gautama. To him, Maya is just an expendable part of his life, while she wants him to be everything in her life. Furthermore, she builds her world around him after marriage. She in fact tells him once "Is there nothing in you that would be touched ever so slightly, if I told you I live my life for you" (Desai, Cry 114). It does not bother him.

Maya becomes obsessed with her childlessness and this negatively influences her life. Prabhat Kumar Pandey has dexterously pointed out that Maya's tragedy lies in her loneliness.

Maya's interests are not catered to. The prophecy of the albino astrologer destabilises her already derailed state of mind. All this leads to Gautama's murder and her suicide.

While the inability to realize one's interests or compromise with the situations in life, ends in a murder and suicide in *Cry, The Peacock* it takes a different turn in *Voices in the City*. Various dimensions of patriarchy are explored in the novel along with existential problems. In the novel, Desai portrays two women characters with completely dissimilar roles. The two women characters Amla and Monisha are influenced by two different facets of patriarchy. Monisha, like Maya in *Cry, The Peacock* is unable to compromise with the humiliation and victimization enforced on her, by the patriarchal family set up. An androcentric family setup dictates all terms and conditions on how a woman has to lead her life. Her marriage to Jiban, a conventional person is in non-conformity with her father. Unlike Maya, she is thrust into a joint family. She feels that the people around her are cold and estranges herself from them. Jiban like Gautama, in *Cry, The Peacock* intensifies his wife's mental agony, and he becomes a source of further disharmony in her life.

Monisha becomes conscious about detachment from her brother, but still craves for the love of her husband. Monisha feels "If only love existed that is not binding, that is free of rules, obligations, complexity and all stirrings of conscience then – but there is no such love" (Desai, Voices 139). Home is a male dominated place relegating women's position. Monisha is a dutiful wife and daughter in law in her husband's home, but she fails to distinguish between her personal space, domestic duties and social obligations.

Amla, sister to Monisha is also a victim of the patriarchal system, as she gets into the whimsical hands of Dharma. However Dharma's influence is not strong on her as she is not psychologically weak like Monisha. She finds an outlet to her feelings through art. Art in the novel, is shown as a means to contain one's self. She has the capability to compromise when compared to her sister Monisha or Maya of *Cry, The Peacock*. She reconciles with her circumstances and tries to achieve a fuller meaning of life. Monisha on the other hand, is neither able to save her interests nor compromise with situations in her life. She finally commits suicide.

In Desai's third novel *Where Shall We Go This Summer*? Sita moulds her character based on patriarchal system. The novel can be viewed as her effort to say no to her husband and make her life, her own. The conflict of interests is shown very well in the novel. Like Maya, Sita is a motherless child brought up by her father. As a child, she constructs her world around her father. Later, on seeing this dubious and hypocritical life, she develops a negative attitude towards life. She harbours mistrust in men.

Sita, a mother of four children and is carrying the fifth child experiences futility and doesn't want to bring her unborn child into this world. Imagining that she can find solace in her childhood home at Manori, she moves there but to her disappointment her children whom she took with her doesn't want to stay there. This leaves her shattered and left with no option. When her husband Raman comes to take children she reconciles to move back. She tries to resolve her conflicting interests through compromise.

Sita tries to yield and come up in saving her married life unlike the other two protagonists of Desai Maya and Monisha. Assimilaing in the roles newly acquired to them is a way of leading their lives rather than living in the fantasy and taking away their lives.

Maya and Monisha, passively accept the situations without resistance. In an androcentric society it is very difficult for women, however modern they may be, to get out of the odd situations they are placed in. They couldn't channelize their interests and try to achieve them. Sita on the other hand, succeeds in seeking a fuller meaning of life through compromise.

The next novel, *Clear Light of Day,* highlights the fact that proper understanding of real self and a deliberate effort on the part of individual can lead to self-fulfilment. The importance of time in one's life has been given primary importance in the novel. Here one witnesses the transition of self in the character of Bim, the female protagonist of the novel. She keeps on dwindling between alienation and affirmation, losing her own self in the midst of it but finally achieves wholeness through conscious effort.

The other novel to focus on identity- crises is *Fasting, Feasting*. Here Uma, the female protagonist of the novel had to suffer and accept humiliations without making any resistance. She is neither assertive nor demanding, neither a psychic case nor a rebel. She is a human being whose feelings and existence is crushed within the framework of familial context. Uma is deprived of proper education and so is totally dependent on her family. Everything in life goes wrong for her. Her dull appearance makes her suffer from inferiority complex. She even faces a disastrous experience of marriage and life turns more worse for her.

She suffers throughout from the pangs of loneliness. Uma's identity, her existence was completely crushed at the altar of family which left no stone unturned in suppressing her individuality. Anita Desai has added a different dimension of identity crisis suffered by a woman in a patriarchal framework. Another character to mention would be Anamika, a brilliant student who won a scholarship to Oxford University. But her identity was not allowed to blossom as her parents decided to get her married. They did not allow their bright daughter to stand on her own. All her medals, scholarship, distinction fell flat after her marriage. She was regularly beaten up by her mother-in-law. She became an isolated, lonesome woman without any kind of support from her husband. Finally, she meets a tragic end and dies. Here one feels constant urge of woman to have their own individuality.

The constant denial of an independent life to the fair sex by their families is shown here by the novelist. Her life has been put in disgrace. A woman's right to live has been snatched by her own people. She has been kept engaged in household work with no life of her own and always subjected to male-domination. Women's identity is crushed and thwarted by the traditional patriarchal scenario. Even if female characters are aware here of the injustice done to them, they do not have the guts to speak their minds. The novel highlights the hypocrisy of educated families who do not allow their daughters to pursue a career and make a life of their own. If the mentioned two women, Uma and Anamika had been given opportunities to breathe in their own space, life would have been much different for them.

Most of Desai's works occupy the problems of Indian culture from a feminine perspective and call attention on the Indian women's difficulties in maintaining their self-identity. Anita Desai presents her female characters as weak, meek and submissive. Pandey in her article "History, Strife for Life: A Existential Crises in *Cry the Peacock* and *That Long Silence*: A Postcolonial Study, pronounces women as fragile beings in Anita Desai's Cry,*The Peacock* (1991). She regards the world of Maya, the protagonist of the novel as improbable. She focuses on the existential crises. Madhurima in her article "The Self, the Family, and Society in Anita Desai's Novels" criticizes Anita Desai's novels and regards them as protagonist's own complexes. Gopal in his book *"A Critical Study of the Novels of Anita Desai"* (2013) rightly added that Desai explores and portrays a common woman's psyche who is living under social oppression. But still she adjusts herself within the spheres of so called normal life.

Anita Desai indirectly claims that in Indian patriarchal society, a servile obedience is demanded from women. Women are conditioned not to expect an elevated status like men. Anita Desai points to patriarchal autonomy impinge on the lives of women. Anita Desai trenchantly presented the miserable plight of Indian women.

Anita Desai is against cultural and social values set for women. She lambastes upon Indian society for their biased behaviour towards women. She speaks of degradation, subordination and dishonouring of humanity especially of females in this story. Women are not more than mere objects. They lack in agency, autonomy and self-determination. Their feelings and experiences are not taken into account.

The women characters of Anita Desai's fiction are complex. Right from *Cry, The Peacock* (1963) to *The Artist of Disappearance* (2004) she has shown myriad women characters and their quest for identity and freedom in a patriarchal society.

Conclusion;

Presenting the inner psyche of women forms the centre stage in Anita Desai's novels. She talks about the existential predicament of a woman in a male dominated society. The predominant partiarchial tones which exists in the society make the women suffer silently as the dishevel in their marital life adds more in alienating themselves.

However, most of Desai's woman's characters highlights the mental agony of them in discharging multiple roles. The women characters fail to resolve the conflict between their traditional roles and their interests in life. The women are all trapped in a society that forces them to conformity. They make a genuine attempt to discover life as it is. Women in her novels are victimized, humiliated and forced to either commit suicide or give up to the norms of the patriarchal family and society. In her novels, a woman's victory or failure depends on the response of the men in her life. A careful study of Desai's early novels *Cry, The Peacock* (1963), *Voices in the City* (1965) and *Where Shall We Go This Summer*? (1975), *Clear Light of Day* (1980), shows that, patriarchal conformity leads to, conflicting interests of the women characters despite their resistance.

The liberated state of many women is still questionable. They are forced to accept patriarchal norms after initial resistance and rebellion. In all the aforesaid novels, Desai presents the different perspectives of dependency and enforced dependency of a woman. They are a study of women's depression resulting from their inability to grapple with their family situations and an androcentric society. In her novels she shows four kinds of women, the first group who are hypersensitive and have a higher level of introspection. They finally plunge into dark, dismal depths of neurosis like Maya. The second group, who suffer in silence and commit suicide like Monisha. The third group, who accept events in their life as their fate, like Leila. The fourth group discloses women like Sita who discover their own new ways of finding fulfilment in the world.

The influence of men looms large on the lives of the women characters that she portrays. Though the characters discussed in the three aforesaid novels are presumably liberated, in reality they are not. Though they are not radical in their outlook of life, they are forced to follow the dictates of patriarchal society either directly or indirectly. The men in her novels are not only influenced by patriarchy but are also dictated by materialism of the present age. Modern men are neither able to redeem themselves, nor leave the women to mend themselves.

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Priority of Gender Economic Empowerment in Indian Budgeting System – a study on Mahila Samman Saving Scheme in Visakhapatnam Andhra Pradesh

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Abstract:

Women have been regarded as the 'nuclei' of the family, society, Nation and in the economic development of the country. So, women development leads to the development of family, society, and the Nation. Economic development encompasses the economic dimension, which has been visible in the policy paradigm in recent times. Recently, increasing women's financial inclusion is especially important as women disproportionately experience poverty, stemming from unequal divisions of labour and a lack of control over economic resources. At present, women empowerment could be possible through financial inclusion with the investments. . The introduction of various women empowerment schemes in India has benefited women in multiple ways: firstly they are able to gain social security and earning opportunities. This Paper attempts to study about Mahila Samman Saving certificate Scheme in the process of women financial empowerment. In the Union Budget of 2023-24 the Finance Minister announced a new saving's scheme for women investors. Mahila samman saving Certificate (MSSC) aims to economically empower women and encourage them to park their earnings in formal financial saving instruments. The main objective of this paper is to study awareness of the scheme for women empowerment through financial inclusion in India. The study will use both primary and secondary data through various sources and suited statistical tools and methods will be applied for analysis. Major findings of the study are observed that the number of women purchased these certificates and invested huge amounts in Post Offices and authorised banks.

Keywords: Women empowerment, MSSC, Financial inclusion, Attractive interest rate.

Introduction:

According to the government Policy, economic empowerment of women is essential for any change in their status. Since women form a major segment of those below the poverty line, hold low intra-household position and face ongoing inequity, policies and poverty-eradication programmes should cater to their needs. Such measures would help them build requisite capacities.. Women's viewpoint has to be included in the macro-economic policies. Their contribution to the formal and informal sector has to be acknowledged and the concept of work in the census records has to be revisited. Studies show that advantages of globalization have been unevenly distributed leading to economic inequalities, feminization of poverty and growing gender inequality. The policy also recognizes the role of women in agriculture, information technology, electronics, food processing, agro-industry and textiles. It recommends provision of crèches at workplaces and educational institutions to enable women to participate fully in the social spheres. It suggests women-favourable personnel policies.

Women have been regarded as the 'nuclei' of the family, society, Nation and in the economic development of the country. So, women development leads to the development of family, society, and the Nation. Economic development encompasses the economic dimension, which has been visible in the policy paradigm in recent times. Recently, increasing women's financial inclusion is especially important as women disproportionately experience poverty, stemming from unequal divisions of labour and a lack of control over economic resources. At present, women empowerment could be possible through financial inclusion with the investments. Women safety and security depends on financial strengths. Financial empowerment leads to welfare and development of women in the society. Number of Programmes for women are framed, funded and sponsored by the both State and Central Governments in India. The introduction of various women empowerment schemes in India has benefited women in multiple ways: firstly they are able to gain social security and earning opportunities. There are a number of women empowerment schemes launched in India. In January 2015, the Prime Minister launched the ' 'Beti Bachao Beti padhao" scheme , with the aim of declining sex ratio over the past few years, to create social awareness and improve the efficiency of welfare services developed for Girls. This Paper attempts to study about Mahila Samman Saving certificate Scheme in the process of women financial empowerment. In the Union Budget of 2023-24 the Finance Minister announced a new saving's scheme for women investors. Mahila samman saving Certificate (MSSC) aims to economically empower women and encourage them to park their earnings in formal financial saving instruments. Officially Launched on April 1st, 2023 across 1.59 lakh Post Offices in India. MSSC is a short-term savings offering suitable for another fixed deposit to women and children with an attractive interest rate. The main objective of this paper is to study awareness of the scheme for women empowerment through financial inclusion in India. The study will use both primary and secondary data through various sources and suited statistical tools and methods will be applied for analysis. Major findings of the study are observed that the number of women purchased these certificates and invested huge amounts in Post Offices and authorised banks. This scheme is a modest savings programme supported purely by the Government for Women and Girl child's. It has no credit risk and pays the highest rate of interest when compared to other schemes.

Review of Literature: It is the first kind of study exclusively on this scheme awareness assessment in India within a few months of its launching on the 1st April, 2023, in 2023-24 budget announcements on 1st February, 2023.

Namreen Asif V.A. , P.S. Aithal, & Niyaz Pankaje (2023) study focuses on different schemes and purposes that have made women's empowerment possible. The MSSC and other women-specific small savings initiatives are the primary subjects of this study. Women should also be taught more about these so that they can make better decisions and improve their financial status. There are various financial and government benefits for women in India.

Kushwah, S.V. (2020) study found that. Women's empowerment indicates that even the various measures and laws that have been enacted to empower them, they still remain weaker and discriminated against in India. Main reasons are lack of political participation, economic wellness and social involvement. Still there are many gaps in socio-economic and political equality between men and women in the country.

Singh, S. and Singh, A. (2020) critically investigated the Indian status among other countries and tries to find out preparedness to achieve Sustainable development Goal -5 of the United Nations. The paper critically examines women empowerment in India, various models and dimensions.

Menon, S. Ranjitha, M and Sharma, S (2020) revealed that decision-making power in households and freedom of movement of women varies considerably with age, education, and employment. The study also indicates that educational qualifications and access to employment are the essential factors that promote women's empowerment, but the degree of achievement of the goal depends mostly on the attitude of the general population towards gender equality.

Shettar, M. R (2015) revealed that women of India are relatively disempowered and they enjoy somewhat lower status than that of men in spite of many efforts undertaken by the Government. The author found that acceptance of unequal gender norms by women is still prevailing in society. The study also observed that the access to Education, Employment and Change in Social Structure are only the enabling factors to Women empowerment.

Objectives of the Study: The present research study on MSSC awareness among women in Visakhapatnam District, Andhra Pradesh. It is an attractive and new savings scheme for women in India. It is really helpful to women development and empowerment in the country.

1) To review the gender priority in Indian Budgeting system
2) To study the structure of the MSSC scheme
3) To analyse the role of MSSC scheme for Women and child.
4) To observe the Government initiative in the adoption of this scheme only for women and girl children.
5) To evaluate how this scheme is superior to other schemes.
6) To analyse the ABCD technique in the scheme for Women and girl child development.
7) To assess the awareness of MSSC in the study area, Visakhapatnam city, AP

Research Gap: Earlier numbers of research studies are done on different welfare schemes for women and Child development in India since its independence, whereas no specific studies have been done on the Mahila Samman Savings certificate scheme in this period.

Methodology: "Methodology is the study of the principle of investigation, including philosophical foundation of choice of methods" (Green and Browne 2005) The methodological techniques and ways of analysing the observations play a significant role in social research. At present, Social scientists use sophisticated methodological tools and techniques in social research. Therefore, methodology is actually a conceptual sketch or it is the way to collect and analyse the data.

Data: The present study has been conducted in the city area of Visakhapatnam. The target population of present study consisted of the people living in Visakhapatnam city.. A sample of 120 respondents was drawn by using a simple random sampling technique. Therefore the data was collected with the help of a well-structured questionnaire and 120 households intervened.

Statistical tools: In this study percentage method was used and qualitative methods were (Opinion survey) also applied in the analysis. And also Chi-square test, Correlation and Gamma Statistics were applied to check the central tendency and ascertain association between independent and dependent variables.

Chi-square: Chi-square test was applied to ascertain relationships between independent and dependent variables. Chi-square was computed by following formula:

∑ = (Observed frequencies – Expected frequencies) 2/ Expected Frequency

X2 = ∑ (O – E) /2

0 = Observed value/frequency E = Expected Value/frequency ∑ = Total sum

Gamma Statistics: The final value of Gamma showed the strength and direction of the relationship between independent and dependent variables. Calculations were made by using the following formula:

Gamma = Ns – Nd/ Ns + Nd

Where:

Ns = same order pair .Nd = Different order pair

Correlation: Pearson Correlation coefficienta was used in this study to know the relationship between the two variables, which is defined as the (sample) covariance of the variables divided by the product of their (sample) standard deviations.

$$r = \frac{1}{n-1}\sum_{i=1}^{n}\left(\frac{x_i-\bar{x}}{s_x}\right)\left(\frac{y_i-\bar{y}}{s_y}\right)$$

Analysis of the research study:

Gender priority budgeting is a potent technique or tool for women empowerment. Women wellness, financial inclusion and empowerment are a crucial role in the development of society as well as for economic growth. Increase the priority of Gender in the Union Budget, in one or other way of women empowerment of the country. Gender priority has been defined differently in various documents on the subject. Gender priority in the budget has been made in Australia, South Africa and Philippines followed by other developed and developing countries. India has also taken initiatives for gender priority budget since 8th Five-year plan onwards.

Gender priority based budget has become a powerful tool for gender mainstreaming. Over the past few decades, Women's empowerment has been increasingly recognized as a crucial factor for any Country's holistic and sustainable development. The Department of Economic Affairs, ministry of Finance, by an e-Gazette announcement published on 27th June, 2023 authorised all public sector Banks and qualified private sector Banks to execute and operationalize the MSSC , 2023. Earlier it was offered only by Post Offices and has been in operation since April 1st 2023.

Mahila Samman Saving Certificate Scheme (MSSC):

On the occasion of Azadi Ka Amrit Mahotsav, the Mahila Samman Savings Certificate program was introduced. On February 1, 2023, Union Budget, the Finance Minister unveiled a MSSC in the 2023-24 Budget for Women. The Two-year term of the Scheme is from April 2023 to March 2025. In the name of women or girls, it will decide a maximum deposit amount facility of up to Rs. 2 Lakh for two years at 7.5%. of interest rate.

In this scheme, the deposit can be made in the name of a woman or a girl child. The government of India has allowed the partial withdrawal option in the Mahila Samman Saving Certificate Scheme. Small savings schemes usually qualify for tax benefits under section 80C.

In this scheme, the procedure of investment is very simple, first locate your nearest Post Office or any

Nationalised Bank and visit them to enquire about the Mahila Samman Saving Certificate scheme. Obtain and fill out an application form for the scheme. You will need to provide personal information as well as your nomination details also. Submit the filled application form along with necessary supporting documents, such as proof of identity and address, to the authorities. Deposits can be made in cash or by cheque, and you can choose the amount at your convenience. After finishing the process of deposit, you will receive a certificate that serves as proof of your investment in the Mahila Samman saving certificate. The present study on “Mahila Samman Savings Certificate, It is a Women priority budget special announcement 2023 in India. The main objective of the scheme is to empower Women in the society.

Objectives of the MSSY Scheme:

a) To know the role of MSSY scheme for women and child

b) To observe the Government intervention in women financial empowerment in the economy and compare various programs with this MSSY scheme.

Features of the Scheme: A minor savings program supported by the government is the Mahila Samman Savings Certificate program. As a result there is no credit risk. The actual name of the scheme is “Mahila Samman Bachat Patra Yojana” launched by the Government of India, in the year 2023. The deposit can be made by the name of a woman or a girl child. The maximum deposit amount has been kept at Rs 2 Lakh only. It will be made available for a two year-year period up to March, 2025. The interest rate of 7.5 percent will be paid to the account holder. And more important is the government has allowed the partial withdrawal option in this scheme. Generally, small savings schemes are usually for tax benefits. The certificate can be obtained from the post office or a Bank.

The Government launched several special programs to women and girl children, but this MSSY scheme is different from those. In case of eligibility, the PPF, NSC, SCSS and SSY schemes women also can be eligible in PPF. NSC, and SCSS , whereas SSY is only for girl children below 10 years. The present scheme is eligible to women and girl children. The tenure of the scheme is very less, only two years for this scheme, the rest of the scheme's tenure is more than this one. The Deposit limit also varied from one to another. But premature withdrawal is allowed in this scheme .

The respondent’s information in the study area:

A descriptive and exploratory research design was followed to conduct the present study. The data obtained from the study includes primary and secondary data. The scheduled questionnaire and Likert Scale was prepared for collecting the information about respondents. The study area under consideration was selected from four zones (East, North, South and west) of Visakhapatnam city. Women aged between 20 to 70 years have been taken for the study. Visakhapatnam District of Andhra Pradesh was selected purposely for the present research work because of the easy accessibility of the authors. Simple random sampling method is being followed in the present study. Out of the total 120 respondents selected, 30 respondents are distributed in each of the four zones.

Table-1 General information of the study respondents

variables	**Category**	
	No. of respondents=120	
	Number	%
Women age classification		
15-25	07	5.83%
25-35	17	14.17%
35-45	37	30.83%
45-55	24	20.00%
55-65	28	23.33%
65 and above	07	5.83%
Socio-economic status		
Upper class	10	8.33%
Upper middle class	22	18.33%
Middle class	70	58.33%
Lower middle class	12	10.01%
Lower class	06	5.00%
Educational qualification		
X class	11	9.17%
12th class	26	21.67%
Degree	57	47.50%
P G	16	13.33%

Above PG	10	8.33%
Occupational Status		
Self- employers	39	32.50%
Small business owners	28	23.34%
Private employees	19	15.83%
Government employees	16	13.33%
Contract employees	18	15.00%
Monthly income of the respondents		
Below 10,000	14	11.67%
10.000-20.000	19	15.83%
20.000-30.000	32	26.67%
30.000-40.000	27	22.50%
40.000-50.000	17	14.17%
50.000- above	11	9.17%
Awareness of MSSY Scheme		
	Number	%
Aware	102	85
Not-aware	18	15
Source of Awareness		
	Number	Percentage
T V	43	35.83
News Papers	37	30.83
Social Networking	31	25.83
Friends & Relatives	09	7.51

Source: primary data

The above table shows that the knowledge regarding demographic profile and awareness of the scheme of the respondents has been created. The findings of the table clearly indicate that 30.83% belong to 35-45 age groups and 58.33% of the respondents belong to the middle class. In context to educational qualification majority i.e., 47.50% of respondents are Degree and about 13.33% of respondents are pursuing their degree of PG. Majority i.e., 32.50% of the respondents are self-employees according to their occupational status and 13.33% of respondents are Government employees and about 15.83% of respondents are private employees and 15.00% of respondents are Contract employees. The findings indicate that about 26.67% of respondent's monthly household income is in between 20.000-30.000 and 9.1% respondents have income higher than 50.000 and about 11.67% of respondents have monthly household income below 10.000. Regarding awareness of the MSSY scheme, nearly 85% of respondents are aware of the selected study area, only 15% are not-aware of the scheme. The findings indicate that about the source of the awareness nearly 35.83% through T.V and 30.83% are through News Papers, 25.83% are from Social networking, only 7.51% of respondents are aware of their Friends and relatives.

Research Hypothesis: Higher the age of the respondents, higher will be Satisfaction from MSSY

Table-2 Respondents satisfaction about the MSSY scheme

Satisfaction Level of Respondents	Age of the Respondents				Total
	15-25	25-35	35-45	55-above	
Highly	8	11	05	00	24
Moderate	8	15	20	32	75
Lower	6	02	04	09	21
Total	22	28	29	41	120

Source Primary Data

Chi-square=24.613 d.f=6 P-value (significance)= 0.000** Gamma=0.374 *=significant **= highly significant

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The table-2 represents the association between the satisfaction level of the respondents and age of the respondents in the selected city, and the value of chi-square shows the highly significant relationship between the variables. Therefore, the hypothesis "Higher the age of the respondents, higher will be the level of satisfaction from this MSS Scheme" is accepted. Moreover, the value of Gamma-0.374 and r=0.259 shows a strength of relationship between predictor and response variables.

ABCD Analysis of MSSY: ABCD as abbreviated to advantages, Benefits, Constraints and Disadvantages. A systematic matrix of business advantages, benefits, limitations and disadvantages are produced by applying ABCD analysis. More than 50% of the country's population, women still face various disadvantages compared to men.

Table-3 ABCD Analysis of MSSY Scheme

ABCD Analysis of the MSSY Scheme			
Advantages	**Benefits**	**Constraints.**	**Disadvantages**
1. High Interest rate 2.Guaranteed maturity benefit 3. Best saving scheme will be useful for the best investment purpose. 4. Significant tax saving scheme 5. Flexibility in terms of operation account.	1. Comparatively high interest rate. 2. Women become financially independent. 3. Beneficiary can withdraw the amount at any time before maturity period 4. It is really a women's financial empowerment scheme.	1. The deposit amount and maximum period is only Rs.2 lakh and 2 years respectively. 2. Govt. allowed partial withdrawal with less benefit only.	1. It will expire on 31-03-2025 2. It was applicable for a short period of 2 years only. 3. Limited period 2 years is another disadvantage 4. very less amount Rs.200000 is also one of the disadvantage

Source: Secondary data (Author prepared the schedule)

The major findings of the study are, this new government scheme is a small financial saving purpose and only for women and children, when compared to other small savings This scheme provides the highest rate of interest when compared to other schemes and withdrawal benefit is much easier.

Conclusion:

There are various types of financial schemes that cater to the needs of women. Since Independence, the Indian government launched various women empowerment financial programs and schemes. Women's empowerment is the process of activity in the economy. . Empowerment indicates the rises in the status of women through education, awareness, literacy, and training.. They may get the opportunity to redefine gender roles, which in turn provide them more freedom to pursue desired goals Gender Budgeting is being implemented as a tool for economic empowerment of Women. This is a pivotal tool not only for women empowerment but also development of the economy in the World. The Indian government has listed several financial schemes and options that can help women overcome their financial problems. Through this Mahila Samman Saving scheme, they hope to have more features so that women may make great use of them and improve their quality of life.

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Sustainable Development in Indian Society

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Abstract

Sustainable development in Indian society can be pursued through various strategies, Environmental Conservation, Implement policies and practices aimed at conserving natural resources, reducing pollution, promoting renewable energy sources, and protecting biodiversity. Social Equity, Ensure that economic development benefits all segments of society, particularly marginalized communities, by providing access to education, healthcare, and economic opportunities. Economic Growth, Foster sustainable economic growth by promoting industries that minimize environmental impact, investing in green technology, and supporting small-scale enterprises. Urban Planning and Infrastructure: Develop sustainable urban infrastructure that prioritizes public transportation, green spaces, and efficient waste management systems to reduce carbon emissions and enhance quality of life. Rural Development: Empower rural communities through initiatives such as sustainable agriculture, access to clean water and sanitation, and support for cottage industries to reduce poverty and migration to urban areas. Education and Awareness: Promote environmental education and awareness programs to instill a culture of sustainability among citizens and encourage responsible consumption and lifestyles. Policy and Governance: Strengthen governance mechanisms to ensure the implementation of sustainable development policies and regulations, as well as foster collaboration between government, civil society, and private sector stakeholders. Technology and Innovation: Harness technological advancements and innovation to develop sustainable solutions for challenges such as climate change, resource scarcity, and pollution. By adopting a holistic approach that addresses environmental, social, and economic dimensions, India can achieve sustainable development and create a prosperous and equitable society for future generations.

Keywords: Sustainable, Environmental, Education, Programs, Pollution

Indian society and Development:

Indian society and development are deeply intertwined, with development efforts in India being shaped by its unique social context. India's society is characterized by diversity in terms of culture, religion, language, and social norms, which influences the way development initiatives are implemented and perceived.

Social factors such as caste, class, gender, and religion play a significant role in determining access to resources, opportunities, and social mobility. Development in India must address these social inequalities to ensure that progress is inclusive and benefits all segments of society.

Additionally, India's development is influenced by its demographic trends, with a large and youthful population that presents both challenges and opportunities. Efforts to harness this demographic dividend through education, skill development, and employment generation are crucial for sustainable development in India.

Moreover, the rapid pace of urbanization and industrialization in India has led to environmental challenges such as pollution, resource depletion, and loss of biodiversity. Sustainable development in India requires balancing economic growth with environmental conservation and ensuring that development is environmentally sustainable. Overall, the development trajectory of India is shaped by its social fabric, and addressing social inequalities, promoting inclusive growth, and ensuring environmental sustainability are key aspects of sustainable development in Indian society.: Sustainable development is a concept that seeks to balance the economic, social, and environmental needs of present and future generations. It involves meeting the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development aims to promote prosperity while protecting the planet by considering the interconnectedness of economic growth, social equity, and environmental protection. This concept recognizes that economic growth must be inclusive and sustainable to reduce poverty and build sustainable societies. It also emphasizes the importance of protecting and managing natural resources and ecosystems for future generations.

In sociology, sustainable development refers to the idea of meeting the needs of the present without compromising the ability of future generations to meet their own needs. It emphasizes the interconnectedness of social, economic, and environmental factors in shaping human well-being. Sociologists study how societies organize themselves to achieve sustainable development, including examining issues such as social equity, community participation, and environmental justice. They also analyze the impacts of policies and practices on different social groups and the environment, with the goal of promoting more sustainable and equitable societies.

Shepherding the achievements of the SDGs is an enormous task that requires the involvement of every sector and each level of society. The experiences of the pilot countries illustrate the opportunities the platform can create for India to build meaningful and lasting state-philanthropy partnerships to achieve the prime minister's vision of "Sabkasaath, Sabkavikas (collective effort, inclusive growth).

Sustainable development does not focus only on the environment but however, it is also for meeting the diverse needs of all the people in existing and future communities, promoting their personal well-being and equity in their relationships with each other, in a context where nature- society imbalances can threaten economic and social stability. Economic development achieved so far has adopted various techniques which have proved harmful to the environment in which we reside in. The growing population and our rate of consumption of natural resources have placed a big stress on the environment. There is a need for development which is sustainable in its nature and which does not have a negative impact on the environment. The way we approach development affects everyone. The impacts of our decisions as a society have very real consequences on other people's lives. For example, by incorporating health plans, for instance, we can ensure that residents have easy access to healthcare facilities which in turn will provide them with a healthy standard of living. Also, poverty and degraded environment are closely inter-related, especially where people depend for their livelihoods primarily on the natural resources based on their immediate environment. Therefore, restoring natural systems and improving natural resource management practice at the grassroots level are central to a strategy to eliminate poverty.

There is still hope for us. We can, to a certain degree, reverse the process of degradation of our surroundings, for Mother Earth is forgiving and able to heal her wounds if we do not inflict more grievous ones on her. The good earth is our mother and that if we destroy her, we destroy ourselves. So we should act today for a better tomorrow for our children. It is time that each one of us adopt an 'energy-efficient and green' mind-set and use the natural resources available equitably, judiciously and save them for our future generations, as, "the best way to predict the future is to create it".

Objective: To know the Sustainable Development in Indian Society.

India's poor run-in sustainable development:

The past record indicates that we have been not very successful in setting relevant indicators to measure outcomes. Quality education has not successfully been defined. India's myopic definition of "safe" drinking water (with hand pumps and tube wells considered as safe as piped water supply) means that official data suggests 86% of Indians have access to safe drinking water and, as a result, we are "on track" for the MDG goal on drinking water. Failure in reducing carbon footprints and in environmental Issues like - Degrading Air Quality Index, Rampant Environmental Degradation, Loss of Biodiversity, Urbanization in the Himalayas, Loss of Resilience in Ecosystems, Lack of Waste Management, Depletion of Resources (land, air, water) Growing Water Scarcity, etc.

In India Still, 18 crores are malnutrition, 51.4% of women are anemic in reproductive age, 24.7% are underdeveloped, 34.7% are disabled under 5 years of age. Indigenization practices and sustainable development goals in India. The greatest threats to sustainable development on earth are population growth and urbanization, energy use and global warming, excessive waste generation and the subsequent pollution of soil, air, and water, transportation in cities, and limited supply of resources. Many of them are interrelated. The 3 pillars of sustainable development are Social, Environmental, Economic.

Social Development:

The ability of a community to develop processes and structures which not only meet the needs of its current members but also support the ability of future generations to maintain a healthy community, quality of life, education, equal opportunities, Law and ethics, environmental law, public involvement in social development. Social workers work as change agents with individuals and institutions, community organization, policy analysis, social planning, and administration. Working according to the Indian constitution with the cultural aspects for the development of the society for the social development. Working for the rights and equality of every citizen.

Environmental Development:

Sustainable development aims at promoting the kind of development that minimizes environmental problems and meets the needs of the present generation without compromising the ability of the future generation to meet their own needs. For example, before our ancestors were Planting sacred trees across the city and roads. - banyan tree peepal tree, neem tree, tamarind jackfruit tree, mango tree, etc. What did we plant on the sides of the road? - Now we plant ornament plants – Gul Mohar, copper pod, fancy flower tress, etc. There are many cultural aspects India needs to come back. The protection of the environment is an essential part of sustainable development. Without adequate environmental protection, development is undermined; without development, resources will be inadequate for needed investments and environmental protection will fail. The strong environmental policies complement and reinforce sustainable development.

Economic Development:

Sustainable development in India encompasses a variety of development schemes in social, cleantech (clean energy, clean water, and sustainable agriculture), and human resources segments, having caught the attention of both Central and State governments and also public and private sectors. Sustainable development aims at creating sustainable improvements in the quality of life of all people. (ii) Increase in economic growth: Sustainable development aims at increasing economic growth through meeting basic needs i.e., raising the standard of living. The benefits of Sustainable Economic Development impact more than just those in poverty.

For example, reducing energy use and expanding public transit options leads to less air pollution, which can improve asthma and heart conditions. Efficient homes and businesses will be more comfortable and safer. Thus, economic growth will be sustainable if the stock of capital assets including land remains constant or increases over time. It may, however, be noted that future economic development and quality of life crucially depends on the natural resource base and quality of the environment i.e., the quality of land, water, and air, the Indian government must also relentlessly pursue the development of world-class indigenous technologies in multiple sectors as a native full-stack advantage for its citizens. India can more deterministically secure its digital and material interests with such a strategic moat in place, through the make in India concept.

Responsibility of social workers in sustainable development:

Social workers facilitate and foster partnerships within communities and between various partners, at local, national, and international levels, to translate UN SDGs in various ways (social, economic, and ecological) and design together with new knowledge of sustainable solutions for the implementation action. There are three types of sustainability in social work: social, economic, and environmental. Social workers are familiar with social sustainability, which recognizes that individual health and well-being, nutrition, shelter, education, and cultural needs must be met. Social Workers are often involved in teaching people about resources and how to develop particular skills such as budgeting, the caring discipline of children, effective communication, the meaning of a medical diagnosis, and the prevention of violence.

Conclusion;

Sustainable Development is, therefore, a historic opportunity for the world communities to deliver inclusive growth, eliminate poverty and reduce the risk of climate change by changing perspectives and approaches to economic development. It entails everyone to participate in making efforts to achieve sustainable development. India and the world have a long and challenging way to go in dealing with environmental problems and learning to live together in sustainable communities. We need to realize that economic and sustainable development is a collective responsibility. We, as individuals, also have to grow into responsible consumers by committing to a changed lifestyle. If we do not act now, we will be delayed to reverse the impact. Sustainable development does not focus only on the environment but however, it is also for meeting the diverse needs of all the people in existing and future communities, promoting their personal well-being and equity in their relationships with each other, in a context where nature-society imbalances can threaten economic and social stability. So, adopting some Indian cultural aspects in sustainability living and development to protect our mother earth by reducing global warming, reducing reuse, recycling plastic, clean air, clean water, quality education, gender equality, social, economic security, etc. helps everyone to live sustainably and also, we can reach SDGs goals by 2030.

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Green Synthesis of Gold Nanoparticles from Various Plant Extracts and Their Biological Applications

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Abstract:

Nanotechnology is a trending area in research field for studying particles at nano scales and it is used over conventional methods and gives size dependent parcels of the functional accoutrements. The present review includes study on green technology for the synthesis of gold nanoparticles from various extracts of different plant parts. The green nanotechnology field that provides sustainability in various implementations. The nanomaterial synthesis using conventional nanotechnology involves the release of poisonous nanomaterials that creates the issue of nanotoxicity but the green nanotechnology helps in derogation of the risk and hazards due to the same. The gold nanoparticles using plants extracts because of their diversity, sustainability and eco-friendly nature. It is concluded that gold nanoparticles synthesized using plants extract such as leaf, root, seed and fruit extracts have antioxidant and antimicrobial activity. Due to their SPR frequency, biocompatibility and tunable property gold nanoparticles has great application in cancer treatment, biosensor, drug delivery and enhancement of plant growth.

Keywords: Green chemistry, green analytical chemistry, clean chemistry, atom economy, sustainable development.

Introduction:

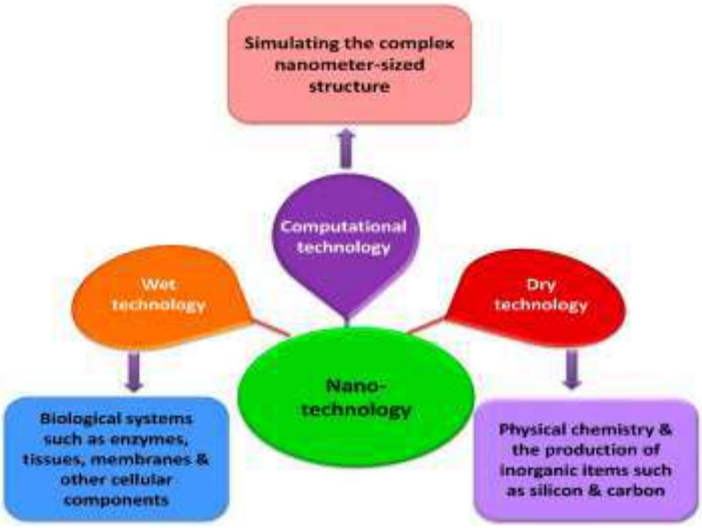
The nanotechnology sector has proven to be one of the most active research fields [1].

Owing to their broad uses in catalysis, sensing, electronics, photonics and medicines, the synthesis of nanoparticles has gained significant attention in recent decades [2]. Scientists have understood the potential of biological organisms to reduce metal precursors since the nineteenth century, but the mechanisms are still not known. Researchers have drawn attention towards biological methods due to the success of nanoparticle synthesis using natural reduction, capping and stabilizing agents, and avoiding harmful chemicals and high energy consumption [3]. A wide variety of products (e.g., Quantum dots (Q-dots) of cadmium sulphide, titanium oxide hybrid-based electrochemical biosensors and oxorubicin-loaded heparinized nanoparticles) can be developed through nanotechnology, and applicable to a broad array of scientific fields, including optoelectronics, biosensors, nano-biotechnology, biomedicine and others [4]. Creation, exploitation and synthesis are nanotechnology concepts that typically consider materials smaller than 1 mm in dimension [5]. Many different methods, such as physical, chemical and green (biological) techniques, have been used to synthesize nanoparticles [6]. The stabilized nanoparticles are formed by reducing ions through reduction (palladium NPs), nucleation (silver NPs) and growth system (silver NPs) [7]. Green chemistry, which uses chemical principles to reduce or eliminate the use of hazardous substances, has led to considerable reductions in toxic residues, which are harmful to man and the environment.

Green chemistry may be defined as chemical-assisted pollution-prevention strategies employed in specific domains such as green analytical chemistry, ecologically friendly analytical chemistry and clean analytical methodologies [8]. Thus, green synthesis is regarded as a viable approach for nanoparticle synthesis since it is biocompatible, inert and environmentally safe [9].

Different Types of Nanotechnologies:

In general, the three types of nanotechnologies are wet, dry and computational. Wet nanotechnology is concerned with the investigation of living organisms and their components such as tissues [9], enzymes and membranes [10] that are predominantly found in water-based systems [11]. Physical chemistry and inorganic compounds such as carbon and silicon are associated with dry nanotechnology. On the other hand, computational nanotechnology is associated with simulations of nanometer-sized components [12]. The three nanotechnologies, viz., wet, dry and computational, are interdependent for optimal functionality (Figure 1).



Fig,1. Different types of nanotechnologies.

Biosynthesis of Novel Metal Nanoparticles Using Plant Extracts:

Nanoparticles with sizes ranging from 1 to 100 nm bind larger particles to atomic or molecular structures [13]. They are synthesized via different approaches, mainly divided into physical and chemical processes (Figure 2). The physical process involves laser ablation, condensation, evaporation, etc., whereas the chemical process involves hydrazine, sodium borohydride, green synthesis, etc. Using plant species to produce nanoparticles has been termed a green technique (Figures 2 and 3) and the most reliable environmentally sustainable approach [14]. Nowadays, researchers are attracted towards biological synthesis, including the use of natural reducing, capping and stabilizing agents and without using hazardous, high-cost chemicals and high power consumption [15] (Figures 2). NPs are extensively utilized in human contact areas (medicine and agriculture, [16] and synthesis methods that do not use harmful compounds are increasingly required.

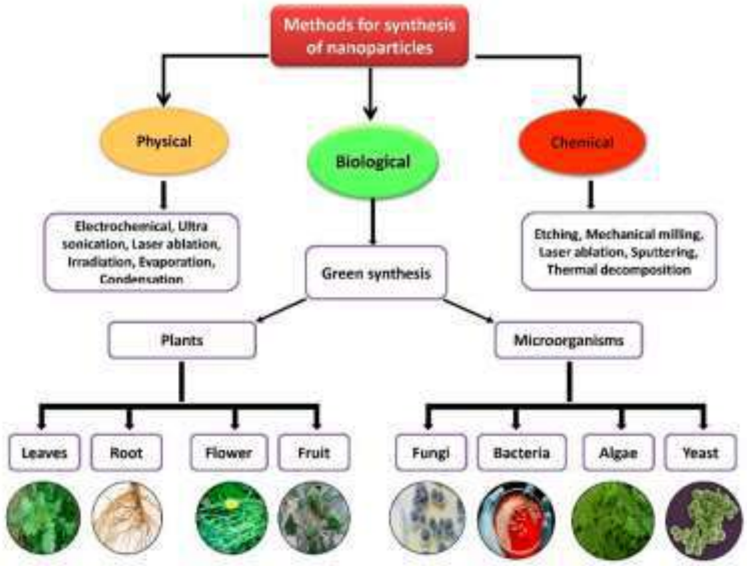


Fig2 Different methods of nanoparticle synthesis.

Green Nanotechnology:

Green nanotechnology is related to the field that provides sustainability in various implementations. The main aim of it is the development of non threating methods for the NPs synthesis. The nanomaterial synthesis involve the release of poisonous nanomaterials that creates the issue of nanotoxicity, the green nanotechnology helps in derogation of the risk and hazards due to the same [17].It pursuit to the evaluate the synthetic styles that help to reduce the use of toxic chemicals with intensifying the capability of current synthesis techniques [18]. Green nanotechnology concern with the production of green products. Green products are those whose synthesis start from nontoxic precursor, use of natural source as raw material, involve less energy consumption, use of green solvents and no toxic disposal [19]. The aim of green nanotechnology is to develop environment friendly nanoparticles, develop green methods for large scale nanoparticle production, Discover efficient approaches for using nanoparticles in the development of novel nano-devices [20].

Why we use Green Nanotechnology:

There is an increasing problem of environmental pollution in today's world due to humanistic activities. Something which is greener and cleaner is more preferable. Green nano-products can be directly applied to check damage from known adulterants and incorporation into environmental technologies can remediate unsafe waste sites, treat pollutants, plant pathogens and related toxins, sense and examiner environmental adulterants, and clean and desalinate weakened water. We prefer green nanotechnology because it provides safe and energy efficient products, reduction in waste and greenhouse gas emissions and involve the use of renewable materials [21].

Fig.3. Principles of Green Chemistry on which Green Nanotechnology Based

Green nanotechnology work on the 12 principles of green chemistry (shown in Figure 1.) such as to design new nanomaterials to achieve economic, social, health, and environmental benefits [22]. The principles of green chemistry impeccably apply to green nanotechnology and nano-manufacturing processes to produce safe, cleaner and more sustainable nanomaterials."

Gold Nanoparticles:-

Gold is the quintessential noble element. In its bulk shape, gold's uses in jewelry, coinage, and electronics are widely recognized. Gold nanoparticles (Au NPs) have attracted extensive attention in the last decades due to their unique catalytic, photo physical and electronic properties. Au NPs of various shapes and sizes can be synthesized by adopting different methods (physical, chemical and biological). The Au nanospheres were primary accomplishment in the field of Au NPs, while they were not perfectly spherical. Surfactant, polymers, pharmaceuticals, DNA, RNA, proteins and oligonucleotides are some of the functionalizing agents with which Au NPs can be conjugated [23]. They have broad applications in the fields of environment sensing, electronics, biomedicine and fine chemical synthesis. Because of their multivalency, gold nanoparticles can shield unstable medicines or inadequately soluble imaging contrast agents and facilitate their effective delivery to else inapproachable regions of the body [24]. Optical property of gold nanoparticles helps us to construct optical biosensors such as optical biosensor, electrochemical biosensor and piezoelectric biosensor [25].

The objective of my study is to describe the green synthesis of gold nanoparticles using plants and their biological applications.

Techniques For Gold Nanoparticle Synthesis:

There are different methods for Au NPs synthesis as shown in Figure 2.

Top-Down and Bottom-Up Approach:

Au NPs can be synthesized by two techniques:- top-down approach and bottom-up approach. In top-down approach, a suitable starting molecule is reduced in size, better known as 'modules'. Top-down approach include different physical methods for synthesizing nanoparticles [26]. Different physical methods for nanoparticle synthesis are, molecular beam emphasis, sputter deposition [27], laser desorption, diffusion flame synthesis, milling method, laser ablation [28] and lithographic techniques [29] etc. In bottom-up approach, the nanoparticles are initially prepared and latterly assembled into final materials by chemicals or biological procedures of synthesis. The bottom-up technique offers the advantage of improving the likelihood of creating nanoparticles with fewer flaws and more uniform chemical compositions. Bottom-up approach includes chemical and biological methods to synthesize gold nanoparticles. Different chemical methods for synthesizing nanoparticles are electro Deposition, sol–gel process [30], chemical vapour deposition soft chemical method, Langmuir Blodgett method [31], co-precipitation method [32] and wet chemical method [33,34].Biological methods involve plants and microorganisms such as algae, virus, bacteria, fungi etc

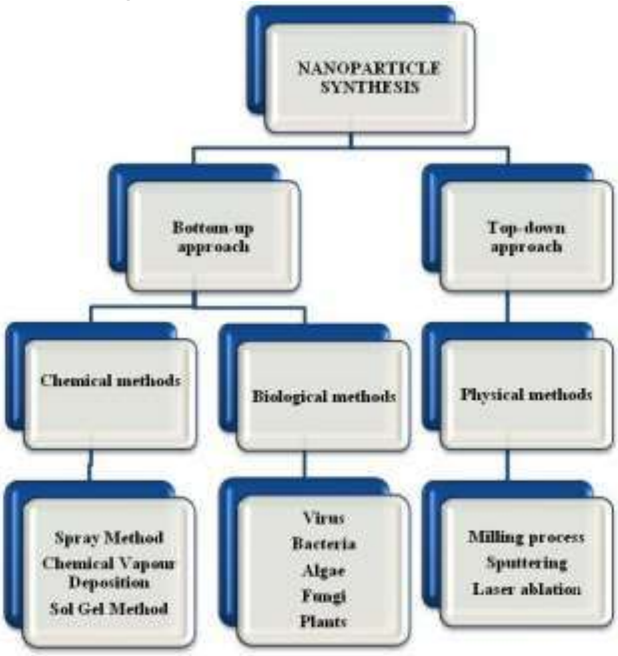


Figure2. Different Methods of Nanoparticle Synthesis

Why we Choose Biological Method for Gold NPs Synthesis:

In physical and chemical methods, there is a problem about the control of crystal growth, size and size distribution, stability and aggregation of NPs. Due to different drawbacks of chemical [35]and physical methods [36] , biological approach for synthesizing NPs have been increasing [37,38,39].Biological methods are based on green technology aimed at overcoming negative effects on environment. Biological approach utilize biological materials as reducing bioactive agents, isolated from microorganisms and plants that are eco-friendly, prevent pollution and no production of waste, effective synthesis and additional energy saving and its economical production of NPs is also very important [40]. In the biological approach bacteria [41], yeasts [42], [43], fungi, algae [44] and plants [45], [46] etc. may be used for producing green NPs at high scale because they contain reducing and capping agent. In biological methods there is use of non-toxic capping agent, less hazardous reducing agent, and environment friendly solvent, no need of high temperature calcination for the production of final product, non-toxic organic solvents are used, methods that used plants can be suitably settled for large scale production of nano-particles [47].

Why Plants are Best Agents:

From all biological entities plants are the best agent because of their diversity, sustainability, and their waste are also eco-friendly. By using plants it is more easy to maintain cell culture and can also be appropriately settled up for large scale production of nanoparticles [48]. Plants can reduce metal ions faster than fungi or bacteria. The plant mediated nanoparticles are more diverse in size and shape comparatively to those produced by other organisms [49]. Biomolecules of plant extracts can be used in single step synthesis of NPs by reducing metal ions to NPs [50,51]. Plants extracts act both as reducing and capping agents for synthesizing nanoparticle. The biomolecules like vitamins, proteins, alkaloids, polysaccharides, amino acids, and organic acids such as citrates that are present in plant extract help in bioreduction of MNPs [52]. We can faster synthesis rate by using plant extracts of high production capability and increasing the reaction temperature. We can also control particle size and shape by changing the plant type or temperature and composition of the reaction mixture [53].

General Mechanism For Green Synthesis of Nanoparticles From Plants:

There are many researches about synthesis of nanoparticles from plants. The general mechanism for synthesis of nanoparticles from plants is presented in Figure 3. For synthesis of nanoparticles there are three steps: activation, growth and termination.

Activation: Firstly plant parts (fruits, leaves, stems, roots) are washed with distilled water and small pieces are boiled to make the extraction and then mixed with solution of metal ion. Plant extracts comprise bioactive agents such as phenolic acids, sugars, polyphenols, terpenoids, proteins, alkaloids, etc., that firstly reduce the metallic ions and then stabilize them. The metal ions are reduced by biomolecules present in plant extract. The metal salts are converted to metal nanoparticles by oxidation-reduction mechanisms. Therefore, the metals are converted to nanoscale zero-valent metallic particles [54,55].

Growth phase: After the formation of nanoscale metallic particles nucleation takes place. The separated metal atoms congregate to form metal NPs and again biological reduction of metal ions takes place. Along with the process of nucleation, nanoparticles combine to form divergent shapes like rods, cubes, triangles, pentagons, spheres [56,57].

Termination phase: NPs are stabilized and capped by plant metabolites. Reduction ofmetal ion is indicated by change in culture colour [16,58]. In this final step nanoparticles obtain their optimistic and stable morphologies.

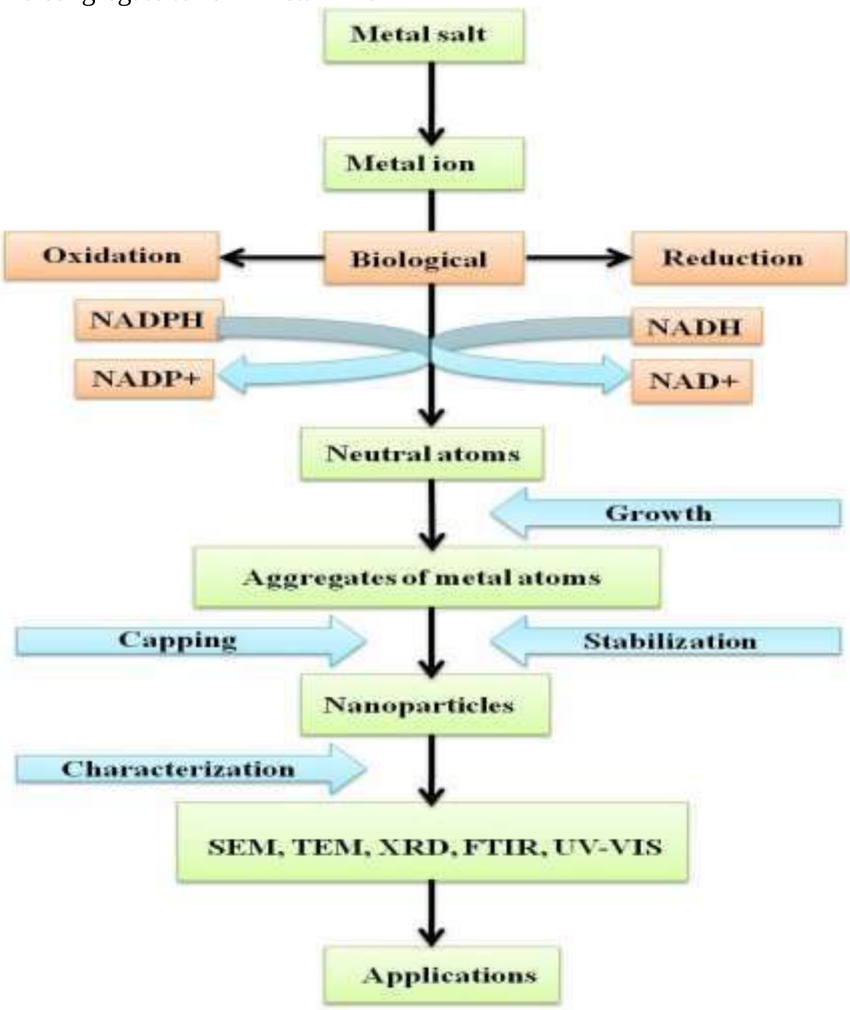


Figure 3. Mechanism for Synthesis of Nanoparticles from Plants

Different plant parts like fruits, leaves, stems, roots and their extracts have been used for different metal nanoparticles synthesis. Many exemplifications are given in Table 2.

Table 2. Synthesis of Different Nanoparticles Using Various Plant Parts and their Activities

Sr. No.	Plans	Plant part used	Nanoparticles	Activity of Nanoparticles	Reference
1	*Acalypha indica*	Leaves	Ag	Antimicrobial activity	[59]
2	*Amaranthus dubius*	Leaves	Fe	Photocatalytic and Antioxidant activity	[60]
3	*Asparagus adscendens*	Root & Leaves	Cu	Antimicrobial activity	[61]
4	*Berberis asiatica*	Roots	Ag	Antimicrobial activity	[62]
5	*Catharanthus roseus*	Leaves	Ag	Antiplasmodial activity	[63]
6	*Celastrus paniculatus*	Leaves	Cu	Photocatalytic and antifungal activity	[64]

7	*Cleome viscosa*	Fruit	Ag	Antibacterial and anticancer Activity	[65]
8	*Coleus aromaticus*	Leaves	Ag	Bactericidal activity	[66]
9	*Cuminum cyminum*	Seed	Cu	Antimicrobial activity	[67]
10	*Desmodium gangeticum*	Root	Cu	Antimicrobial activity	[68]
11	*Diospyros paniculata*	Root	Ag	Antimicrobial activity	[69]
12	*Euphorbia esula*	Leaves	Cu	Catalytic activity	[54]
13	*Glycyrrhiza glabra*	Root	Ag	Anti-ulcer activity	[70]
14	*Lagenaria Siceraria*	Leaves	Fe-oxide	Antimicrobial Activity	[71]
15	*Lantana camara*	Fruit	Ag	Antimicrobial Activity	[72]
16	*Lawsonia inermis*	Leaves	Fe	Antimicrobial Activity	[73]
17	*Magnolia kobus*	Leaves	Cu	Antimicrobial Activity	[74]
18	*Malus domestica*	Fruit	Ag	Antimicrobial Activity	[75]
19	*Moringa oleifera*	Seed	Fe	Antimicrobial Activity	[76]
20	*Persea americana*	Seed	Cu	Antimicrobial Activity	[77]
21	*Piper nigrum*	Seed	SnO_2	Antitumor activity	[78]
22	*Punica granatum*	Seed	Fe_2O_3	Photocatalyticactivity	[79]
23	*Rheum palmatum*	Root	Ag	Antibacterial activity	[80]
24	*Rheum palmatum*	Root	CuO_2	Heterogeneous catalytic activity	[81]
25	*Tradescantia spathacea*	Leaves	SnO_2	Photoantioxidant activity	[82]
26	*Trigonella foenum graecum*	Seed	Ag & Fe-oxide	Antibacterial and Antioxidant Activities	[83]

Green Synthesis of Gold Nanoparticles Using Various Extracts of Different Plants:

By Using Leaf Extract:

Au NPs can be synthesized by the use of leaf extract of different plants. Leaf extract of Buhinia purpurea and HAuCl4 used to prepare gold nanoparticles. Synthesized NPs has excellent anticancer, oxidant, catalytic property. These nanoparticles act as good catalyst for reduction reaction of methylene blue and rhodamine B by $NaBH_4$. Synthesized gold nanoparticles have anticancer activity on lung carcinoma cell line [84].

Au NPs of average size 15.3 nm has also been synthesized using leaf extract of *Cacumen platycladi*. Synthesized NPs were of diverse morphology such as sphere, triangles. In this synthesis flavonoids and reducing sugars act both as reducing and protecting agent. Author studied the effect of temperature and pH on size of nanoparticles. Size of NPs decrease with increasing temperature and pH [85].

Hibiscus-rosa-sinensis's leaf extract has also been used to synthesize the gold NPs of different shapes and sizes by varying the ratio of metal salts and extract. From FTIR it was confirmed that amine group was responsible for gold NPs stabilization [86].Au NPs has also been synthesized using Cerasus serrulata leaf extract [87]. The synthesized NPs has size in range from 5 to 25 nm and spherical in shape. C. serrulata contain five main compounds which help in the process of reduction. But the major groups were Butylhydroxytoluene, Hydrocoumarin and coumarin; from these coumarin is best which act as reducing and capping agent for Au NPs synthesis. The synthesized NPs show antibacterial activity against Escherichia coli a gram negative bacterium.

Magnolia kobus has also been used for synthesizing Au NPs [88]. Nanoplates of width 250-300 nm and thickness of 5-7 nm were formed using 5% leaf broth at 25°C and the impact of concentration and temperature on the synthesis rate and size/shape of gold NPs were studied. It was observed that rate of synthesis increase with the temperature and size of NPs decrease with increasing concentration of leaf extract. From FTIR it was confirmed that Au NPs were surrounded by some proteins and metabolites like terpenoids with numerous functional groups such as alcohols, aldehydes, amines, carboxylic acids and ketones.

Murraya koenigii can also be used for the conflation of gold nanoparticle. Varying concentration of leaf extracts of M. koenigii was added to HAuCl4.3H2O to obtain different colloids such as g1, g2, g3, g4 and g5 of different shape and size. Average shape and size of Au NPs prepared was spherical and 20nm respectively. FTIR measurement shows that biomolecules responsible for capping and efficient stabilization in M .koenigii leaf are polyphenols, flavonoids and alkaloids [89].

By Using Root Extract:

Au NPS of spherical shape and 10-15nm in diameter have been prepared using Glycyrrhiza uralensis root extract. The reduction of methylene blue with *Glycyrrhiza* root extract is catalysed by Au NPs that have been prepared. Catalytic activity was confirmed by the decrease in absorbance value of methylene blue in UV-Vis spectra. The in vitro cytotoxicity of Au NPs was appraised by the colour change from purple to yellow at 517nm. These Au NPs are toxic toward murine macrophage and non-toxic toward breast cancer cell lines [90].

Use of *Lanthana camara* Linn root extract has also been reported for synthesis of Au NPs of average size 11-32nm with spherical morphology. It was reported that N-H and O-H functional groups are responsible for reduction of Au ions to Au NPs and flavonoids for capping and stabilization of Au NPs. The L. camara Au NPs have dose dependent significant inhibitory effect on breast cancer cell line (MDA-MB-231) and normal cell line (Vero) [91].

Au NPs have also been synthesized using root extract of *Morinda citrifolia*. The synthesized Au NPs were 12.17-38-26 nm in size. From FTIR spectrum, it was reported that proteins present in root extract act as reducing and capping agents [92].

Root extract of Trianthema decandra has also been used for the synthesis of Au NPs.

Synthesized NPs were of different shapes such as spherical, triangular, hexagonal and cubic with size ranging from 33.7 to 99.3nm. Triangular nanoparticles show excellent antibacterial activity against Y. enterocolitica, S. faecalis, E. coli, P. vulgaris and S. aureus. Hence these synthesized Au NPs can be used for treatment of human infection due to microorganisms [93].

Au NPs with various shapes such as triangular, spherical and hexagonal with average size 24.7nm have also been prepared using root extract of Arctium lappa. The author reported that synthesized NPs have significant catalytic role for detoxification of common dye Rhodamine B (RhB). Synthesized Au NPs have significant catalytic role for the degradation of 4-Nitrophenol using $NaBH_4$ [94].

By Using Seed Extract:

Au NPs synthesized from seed extract of Abelmoschus esculentus were of various sizes and the reason was that the nucleation and aggregation occur consecutively. FTIR shows that –OH functional group in the extract act as capping agent in NPs synthesis. The synthesized Au NPs have antifungal activity against P. graminis, A. flavus, A. niger and C. albicans. Hence these NPs have great potential to be used for drug preparation against fungal diseases [95].

Seed extract of Benincasa hispida has also been used for Au NPs synthesis. Different colloids were prepared using different concentrations of extract to solution of chloroauric acid. The reduction process was fast when 35ml of extract was used against 30ml solution of chloroauric acid. The produced particles were approximately spherical in form, according to TEM image. The polyol present in seed extract help in reducing chloroauric acid and –COOH group present in protein aid in stability of Au NPs [96].

Polydispersed Au NPs can be synthesized using Cuminum cyminum seed extract. The author reported the effect of pH and temperature on morphology the NPs. Increase in temperature and pH result in the production of spherical Au NPs and triangular nano-plates obtained at lower temperature and pH [97].

The Au NPs synthesized from seed extract of Terminalia chebula has significant antimicrobial activity. Antimicrobial properties were studied using E. coli and S. aureus but TC-Au NPs shows antimicrobial activity against S. aureus [98].

Au NPs of spherical shape with average size 15.2 nm has been synthesized using Elettaria cardamomum seed extract. Au NPs (B3) synthesized using 10ml of extract against 30ml solution of $HAuCl_4$ has significant antioxidant activity against DPPH, NO and OH. This radical scavenging activity enhance with increasing concentration of B_3 Au NP. These NPs has effective antibacterial activity against S. aureus. E. coli and P. aeruginosa. Due to antibacterial and antimicrobial activity, Au NPs (B_3) has significant application in pharmaceutical. The synthesized Au NPs has cytotoxicity aid against HeL (Human erythroleukemia) a cell lines, so it can be used for human cancer therapy [99].

By Using Fruit Extract:

Polydispersed Au NPs with different shapes and average size 20nm has been synthesized using fruit extract of Hovenia dulcis. The synthesized Au

NPs have maximum antioxidant activity. These Au NPs have radical scavenging activities for DPPH and hydrogen peroxide. These Au NPs are likewise antimicrobial against E. coli and S. aureus bacteria. [100].

Citrus macroptera's fruit extract has also been used for Au NPs synthesis. It contains citric acid and ascorbic acid that aid in the reduction of Au3+ ions to Au particles, as well as carboxylic, amide and hydroxylic groups, which help to stabilize Au NPs. The synthesized Au NPs have antibiofilm activity. These Au NPs prevent biofilm growth of Pseudomonas aeruginosa by inhibiting the pyocyanin formation that is responsible for biofilm formation. These Au NPs also has cytotoxic effect against three human cancer cell lines, MDA-MB 468 (human breast cancer cell), A549 (adenocarcinogenic human alveolar basal epithial cell) and HepG2 (human liver cancer cell line) [101]. Au NPs synthesized from Terminalia arjuna fruit extract are predominantly spherical in morphology with 25nm average size. Tannin, saponins, terpenoid, glycosides, flavonoids and polyphenolic compounds of the fruit extract of T. arjuna act as reducing and capping agents for Au NPs's synthesis. TA-Au NPs helps to improve seed germination and plant vegetative growth of seedling of Gloriosa superba [102]. Au NPs of sizes 5 to 10nm can be synthesized using Lycopersicon esculentum (Tomato) fruit extract. Tomato juice contains citric acid and ascorbic acid that act as reducing agent. Tomato extract do not act as capping agent, so in this synthesis sodium dodecyl sulfate (SDS) act as capping agent. Methyl parathion can be estimated and detected by using LE-Au NPs in the presence of SDS, hence these Au NPs act as colorimetric sensor [103].Polydisperse and non-spherical Au NPs can be synthesized using Mimusops elengi fruit extract. Antibacterial activity against gram negative bacteria (E. coli) and gram positive bacteria (S. aureus) and antifungal activity against Aspergillus niger and Aspergillus tubingenesis of synthesized Au NPs has also been reported. [104].

Biological Apllications of Gold Nanoparticles:

Cancer Treatment Using Photothermal Therapy:

Cancer is unregulated growth of cells which may spread to other parts of body. Due to unique property of absorption and scattering of electromagnetic radiation, high biocompatiblity and high photothermal efficiency, Au NPs are used for the treatment of cancer using photothermal method [105].

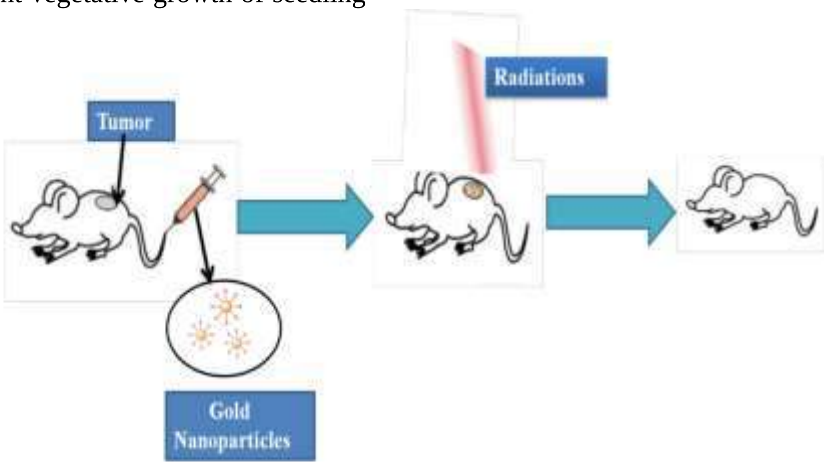


Figure 4. Schematic Diagram Showing Photothermal Therapy Using Au NPs

Biological tissue and water rarely absorb any radiation, so Au NPs with SPR frequency in near-infrared region are best source for bioimaging in locating the tumors. Surface modification of NPs are done to provide protection against aggregation, for specific interactions with cells using tumor specific agents, as well as targeted transport and accumulation in desired organs [106]. Au NPs engulfed in tumor cell absorb radiations and convert them into heat causing hyperthermia of tumor cells leading to cell death [107,108].

Drug Delivery: Au NPs can also be used as vehicle for drug delivery in treatment of diseases. For drug delivery Au NPs's surfaces are modified with cationic polymers or reactive functional groups (e.g. thiol, carboxyl and amine) [109]. Drugs are adsorbed on the surface of Au NP either covalently or noncovalently. Au NP with drug entered into cell either by gene gun or by natural untaken by cell. Inside the cell Au NP release the drug, this release may be due to natural cell functioning or induced by different methods (e.g. photothermal) [110]. There are various experiments that have proven the functioning of Au NPs in drug delivery [111,112]

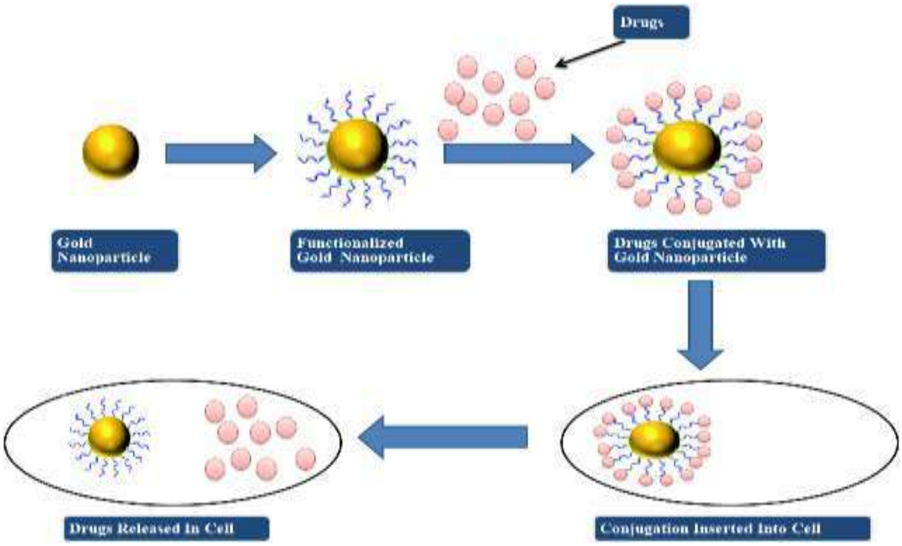


Figure 5. Schematic Diagram for Drug Delivery Using Gold Nanoparticle

Biosensors:

Generally sensors are used to specify the presence of analytes and read outs are used for analyte concentration determination. There is change in optical property of gold nanoparticle if optical read out is used. Cysteine-linked core-satellite Au NPs has been used for detection of Co2+spiked in diluted human serum [113]. Au NP's biosensor has been developed for the detection of E. coli O157: H7. The bacteria were detected by measuring the electrochemical signal of Au NPs [114].

Enhancement in Plant Growth:

Au NPs helps in enhancing plant growth and seed yield. In Brassica juncea Au NPs increased permeability of seed capsule, more light absorbance by chlorophyll thus fastening the photochemical reaction and increase in number of leaves [115]. Seed yield and growth of Arabidopsis thaliana also enhanced by Au NPs [116]. Au NPs synthesized using fruit extract of Terminalia arjuna, have significant effect on inducing seed germination and growth of Gloriosa superba plant [102].

Conclusions:

The review article concluded that, nanotechnology deals with study of particle at nanoscale and great application in real world. Due to small size nanoparticles have improved chemical, physical, and biological properties. Green nanotechnology that works on principles of green chemistry provides green, safe and sustainable method for nanosynthesis. There are different green methods to prepare gold nanoparticles; the present study involves synthesizes gold nanoparticles using plants extracts because of their diversity, sustainability and eco-friendly nature. It is concluded that gold nanoparticles synthesized using plants extract such as leaf, root, seed and fruit extracts have antioxidant and antimicrobial activity. Due to their SPR frequency, biocompatibility and tunable property gold nanoparticles has great application in cancer treatment, biosensor, drug delivery and enhancement of plant growth.

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Agri-Tourism in Telangana: A Way of Rural Development

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Abstract:

The overall development of rural areas requires, among other things, the involvement of the non-agrarian sector. The multifunctionality of agriculture is evidenced, inter alia, by its conjunction with tourism and environmental protection. Rural tourism is gaining increasing importance and can contribute to the development of rural communities. This article analyses the resources available in Telangana, points to factors crucial to the development, and highlights necessary actions. It evaluates the capacity development and present state of rural tourism, draws attention to basic principles of development, and stresses the necessity to cooperate with complementary sectors. Some rural localities imbued with traditions, customs and cultural and historical heritage in conjunction with rural tourism are specific types of tourist attractions (ethnic villages, food, festivals). It is the duty of the local community to recognise, initiate and become actively involved in development strategies and master plans to take advantage of support measures and subsidies.

Keywords: Tourism, Rural Development, Communities, Strategies, Complementary Sector.

Introduction:

The changes in global climate and economy exert the greatest impact on rural areas. To mitigate these adverse effects, local residents should be conscious enough and sufficiently strengthened to take an active part in developing their own environment. Rural areas have long been marginalised and economically underdeveloped. Therefore, in developed countries, as well as in developing economies, poverty has been an increasingly common problem in rural environments. To preserve the unique natural legacy, modern society has accepted the concept of sustainable economic development. Sustainable rural development is evidenced by the multiple functions of agriculture and its conjunction with other activities, with the range of rural economic effects considerably expanding.

This form of development adds substantially both to the competitiveness of the local economy and the quality of life of local residents. The food and agriculture sector along with other non-agrarian activities can contribute to the sustainable development of the rural economy. Through economic diversification of the rural economy, agricultural holdings earn their income not only from farming, but also from the food industry and the activities of the tertiary or service sector. This enables rural households to generate additional income through other farming-related activities. Importantly, this ensures subsistence for small farms which struggle to adapt to the new economic reality. Through the use of all available facilities, traditional knowledge, natural resources, cultural heritage and current technologies, rural areas can offer a more diverse range of products and services on the market, thus developing a recognisable identity.

The concept of agro-tourism has also gained popularity worldwide due to increasing interest in sustainable and experiential travel experiences. In agricultural regions, agro-tourism serves as a means to diversify income for farmers, promote rural development, and preserve traditional farming practices. Additionally, it provides urban dwellers with an escape from city life, offering them a chance to relax in natural surroundings and gain a deeper appreciation for the food they consume.

Research Objectives

1. To explore the concept of Agro-tourism.
2. To highlight the current scenario of Agro-tourism in Telangana
3. To point out and identify key factors for the development of Agro-tourism.
4. To find out the major challenges of agro-tourism sector.

Research Methodology:

The present research work is exploratory in nature and based on the secondary source of data collection. The researcher has collected the secondary data from the reputed books, journals and official websites of the tourism department and department and tourism boards of different states as well as of tourism ministry of India. To pace the study, the researcher has also used some observational facts.

Review of Literature

P. Singh and Manoj Kumar (2016):

In their study have stated that Agro-tourism is a supportive system to the agricultural activities in India. Moreover, it is an Innovative practice which can be utilized by the famer and farm owners to harvest this opportunity, through a diversified approach in the core areas of agriculture sector in India.

Azimi Hamzah et. al. (2012):

In their study have discussed about the potential socio-economic benefitsthat can be offered by the agro-tourism activities to progressive fishing.

Vijay M. Kumbhar (2010):

In his study of Maharashtra has pointed out that tourism is now well recognized as an engine of growth in the various economies in the world. Therefore, tourism has great capacity to generate large-scale employment and additional income sources to the skilled and unskilled. Today the concept of traditional tourism has been changed and some new areas of the tourism have been emerged like Agro-Tourism. Consequently, the promotion of Agro-tourism would bring many direct and indirect benefits to the local people by generating new job opportunities in rural areas in the farming sector.

N. G. McGehee, et. al. (2007):

In their study has explained Agro tourism as rural enterprises which incorporate both a working farm environment and a commercial tourism component. Marques (2006) in his study has pointed out agro-tourism as a specific type of rural tourism in which the hosting house must be integratedinto an agricultural estate, inhabited by the proprietor, allowing visitors to take part in agricultural or complementary activities on the property.

Sonnino (2004):

In his study has stated that all activities of hospitality performed by agricultural entrepreneurs and their family members that must remain connected and complementary to farming activities. Likewise, Sharpley and Sharpley (1997) in their research haverevealed the fact that tourism products which are directly connected with the agrarian environment, agrarian products or agrarian stays.

Agro-Toursim in Telangana Opportunities:

Telangana, with its diverse agricultural landscape and rich cultural heritage, offers numerous opportunities for agro-tourism development. The state is not only recognised for its fast-growing IT and pharmaceutical industries but is also famous for its rich culture as well as its lush green villages. Here are some potential areas for agro-tourism in Telangana State.

1) **Rice Farming Tours**: Telangana is renowned for its rice cultivation. Tourists can visit rice paddies, learn about traditional and modern cultivation techniques, and even participate in activities like transplanting seedlings or harvesting rice.
2) **Organic Farming Experiences**: With a growing interest in organic produce, there's an opportunity to showcase organic farming practices in Telangana. Travelers could visit organic farms, learn about natural pest management, composting methods, and the importance of chemical-free agriculture.
3) **Mango Orchards**: Telangana is known for its delicious mangoes. Agro-tourism can focus on mango orchard visits during the fruit-bearing season, offering tourists the chance to pick mangoes, taste different varieties, and learn about mango cultivation and processing.
4) **Tribal Agriculture**: Many tribal communities in Telangana practice unique agricultural methods. Agro-tourism initiatives can involve visits to tribal villages, where tourists can learn about their traditional farming practices, medicinal plants, and cultural heritage.
5) **Silk Production**: Telangana has a significant silk production industry. Agro-tourism can include visits to silk farms or sericulture centers, where tourists can witness the silk production process, from silkworm rearing to silk weaving.
6) **Spice Gardens**: Telangana's spice cultivation, including turmeric, red chillies, and coriander, presents an opportunity for agro-tourism. Tourists can explore spice gardens, learn about cultivation techniques, and participate in spice processing workshops.
7) **Heritage Agriculture**: Telangana has a rich agricultural heritage, including ancient irrigation systems like tanks and wells. Agro-tourism initiatives can focus on showcasing these historical agricultural practices and their significance in the region's development.
8) **Agri-Hospitality**: Developing agri-resorts or farm stays where visitors can experience rural life firsthand, engage in farming activities, and enjoy locally sourced meals can be a lucrative opportunity in Telangana.
9) **Festivals and Events**: Telangana celebrates various agricultural festivals such as Bathukamma, Bonalu, and Sankranti. These events can be integrated into agro-tourism packages, allowing tourists to witness traditional rituals, folk performances, and culinary delights.
10) **Cattle and Dairy Farm Visits**: Telangana has a thriving dairy industry. Tourists can visit dairy farms, witness cattle rearing practices, participate in milking sessions, and learn about dairy product processing.

By leveraging these opportunities, Telangana can develop a vibrant agro-tourism sector that not only promotes sustainable agriculture but also boosts rural economies, preserves cultural heritage, and provides unique experiences for tourists. However, it's crucial to ensure that agro-tourism initiatives are carried out responsibly, respecting local communities and ecosystems.

Challenges:

Agro-tourism, despite its potential benefits, faces several challenges that can hinder its development. These challenges include:

1) **Infrastructure**: In many rural areas, infrastructure such as roads, electricity, and sanitation facilities may be inadequate or non-existent. This lack of infrastructure can deter tourists from visiting agricultural regions and limit the growth of agro-tourism initiatives.
2) **Access to Markets**: Farmers involved in agro-tourism may struggle to access markets for their products beyond tourist consumption. Establishing reliable market linkages and distribution channels for farm produce can be a challenge, especially for small-scale farmers.
3) **Seasonality**: Agro-tourism activities are often seasonal, depending on agricultural cycles and weather conditions. Managing seasonality and ensuring a steady flow of tourists throughout the year can be challenging for agro-tourism operators.
4) **Regulatory Hurdles**: Agro-tourism ventures may face regulatory hurdles related to land use, permits, licenses, and zoning regulations. Navigating through complex regulatory frameworks can be time-consuming and costly for agro-tourism operators, especially small-scale farmers.
5) **Skill Development**: Farmers and rural communities involved in agro-tourism may lack the necessary skills and knowledge to cater to tourists effectively. Training programs on hospitality, customer service, and tourism management are essential for ensuring high-quality visitor experiences.
6) **Sustainability**: Balancing tourism activities with agricultural practices while ensuring the sustainability of natural resources can be challenging. Overcrowding, habitat destruction, and pollution are potential threats to the environment in agro-tourism destinations.
7) **Marketing and Promotion**: Agro-tourism ventures often struggle with marketing and promotion, especially in reaching target audiences beyond local communities. Limited resources and expertise in marketing can hinder the visibility and competitiveness of agro-tourism businesses.
8) **Risk Management**: Agro-tourism activities involve inherent risks, such as accidents on farms, food safety concerns, and unpredictable weather conditions. Implementing risk management strategies and ensuring visitor safety are crucial for the success and sustainability of agro-tourism ventures.
9) **Community Engagement**: Building strong community support and involvement is essential for the success of agro-tourism initiatives. However, conflicting interests, lack of trust, and resistance to change within local communities can pose challenges to collaboration and partnership development.
10) **External Factors**: External factors such as economic downturns, political instability, natural disasters, and public health crises (e.g., pandemics) can significantly impact the viability of agro-tourism businesses and disrupt tourist flows to rural areas.

Addressing these challenges requires a holistic approach involving collaboration between government agencies, private sector stakeholders, local communities, and civil society organizations. Supportive policies, capacity-building initiatives, investment in infrastructure, and effective marketing strategies are essential for overcoming barriers to the growth of agro-tourism.

Conclusion:

Thus, it can be concluded that agro-tourism in India is facing many problems and Indian farmers need to cater the concept of agro-tourism as diversifying their operation. Today Agro-tourism needs a creative strategy for the betterment but it is not an easy task. Therefore, here it is an urgent need to implement a well-defined strategy for the development of agro-tourism at national and state level.

In this regard we need proper recognition of agro-tourism industry, government supported policy structure of agro-tourism, education of the farmer and farm owner, proper financing solution for its enhancement, liability and risk management programs, product and service quality improvement. Moreover, a Public Private Strategic Partnership Development Model may be created to boost the agro-tourism sector in India.

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Incorporation of India Knowledge System through NEP (2020) For Sustainable Development

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Abstract:

Indian civilisation has accorded immense importance to knowledge — its amazingly vast body of intellectual texts, the world's largest collection of manuscripts, its attested tradition of texts, thinkers, and schools in so many domains of knowledge. India is a nation with a long civilizational history with recorded history, cultural artifacts and evidence pointing to more than five millennia of existence. Despite of continous onslaught of foreign invasions for more than a millennium ,the knowledge practices have more or less remained intact and have been passed on from generation to generation. **Indian-** Akhand Bharata; **Knowledge -** facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject. New Knowledge means information that is added to or modifies existing scientific theory or facts that are accepted among a group of researchers. It is Created by wisdom and gained by personal experiences, by intense observations of events, experimentations and analysis; **System** -structured methodology and a classification scheme to access the available corpus knowledge. Indian Knowledge System (IKS) is Established in October 2020, is an innovative cell under Ministry of Education (MoE) at AICTE, New Delhi.Under Ministry of Education, Government of India has established IKS division with a vision to promote interdisciplinary and transdisciplinary research on all aspects of IKS, and disseminate IKS knowledge for further innovations and societal applications. National Education Policy (NEP) 2020 refers to the traditional knowledge of India that is both sustainable and strives for the welfare of all. In order to become the Knowledge power in this century, it is imperative that we understand our heritage and teach the world the 'Indian way' of doing things. This research paper is based on the secondary data sourced from books, research papers, journals, magazines, articles and published reports. Different aspects of need of IKS for introducing in Indian Education System is studied in the light of NEP (2020).The objective of the study is to study the role and functions for establishing and promoting IKS in education system established by ministry of education and Inclusion of IKS in Indian Education system under NEP 2020. Indian Knowledge System (IKS) is Established in October 2020, is an innovative cell under Ministry of Education (MoE) at AICTE, New Delhi.Under Ministry of Education, Government of India has established IKS division with a vision to promote interdisciplinary and transdisciplinary research on all aspects of IKS, and disseminate IKS knowledge for further innovations and societal applications. Indian Knowledge Systems (IKS), preserve and disseminate IKS knowledge for further research and societal applications. Para 4.27 of National Education Policy (NEP) 2020 refers to the traditional knowledge of India that is both sustainable and strives for the welfare of all.

Keywords: IKS, Education System, NEP (2020)

Introduction:

Swami Vivekananda famously said, "Education is the manifestation of perfection already existing in man". The education system today is designed for the atomized individual serving the industrialized world. It is not aimed at bringing to blossom the true potential of the student. It creates self-centered job-seeking individuals who are focused on making a living. How can 'making a living' be the highest aspiration of anyone? We are capable of much more, but education limits us. The solution for a new education system lies in the Indian Knowledge Systems. Our ancestors have delved deep into human nature and how it can express itself.

" ***SWAMI VIVEKANANDA"***

The Mahabharata says, "A student learns one-fourth from his teacher, one-fourth from his own intelligence, one-fourth with the passage of time and one-fourth from his peers". We need to create an education system that is based on this[1].

Indian civilisation has accorded immense importance to knowledge — its amazingly vast body of intellectual texts, the world's largest collection of manuscripts, its attested tradition of texts, thinkers, and schools in so many domains of knowledge. India's knowledge tradition is ancient and uninterrupted like the flow of the river Ganga, from the Vedas (Upanishads) to Sri Aurobindo, knowledge has been at the centre of all inquiry. Over time, knowledge of different domains has been institutionalised into disciplines, or vidya and crafts, or kala. Indian disciplinary formations include fields as diverse as philosophy, architecture, grammar, mathematics, astronomy, metrics, sociology (dharmasastra), economy and polity (arthaśāstra), ethics (nitishastra), geography, logic, military science, weaponry, agriculture, mining, trade and commerce, metallurgy, mining, shipbuilding, medicine, poetics, biology, and veterinary science. Tradition mentions 18 major vidyas, or theoretical disciplines; and 64 kalas, applied or vocational disciplines, crafts. The 18 vidyas are: the four Vedas, the four subsidiary Vedas (Ayurveda – medicine, Dhanurveda – weaponry, Gandharvaveda – music and Silpa – architecture), Purana , Nyaya, Mimamsa, Dharmasastra and Vedanga, the six auxiliary sciences, phonetics, grammar, metre, astronomy, ritual, and philology — these formed the basis of the 18 sciences in ancient India. As far as the applied sciences are concerned, there are competing enumerations of 64[2].

India is a nation with a long civilizational history with recorded history, cultural artifacts and evidence pointing to more than five millennia of existence. Despite of continous onslaught of foreign invasions for more than a millennium ,the knowledge practices have more or less remained intact and have been passed on from generation to generation. However ,knowing repository created by the forefathers provide great value for any society. Unfortunately due to major changes in the educational system introduced in India about 200 years back ,there was an abrupt end of to those process of knowledge transmission and continuity is almost lost. The higher education system switching completely to the English language over the past two centuries, IKS is inaccessible to most Indians.

IKS stands for :

1. **Indian-** Akhand Bharata
2. **Knowledge -** facts , information, and skills acquired through experience or education; the theoretical or practical understanding of a subject. New Knowledge means information that is added to or modifies existing scientific theory or facts that are accepted among a group of researchers. It is Created by wisdom and gained by personal experiences, by intense observations of events, experimentations and analysis
3. **System -**structured methodology and a classification scheme to access the available corpus knowledge Ancient knowledge is the accrued knowledge over several generations and preserved in formal and informal means.

Review of Literature:

Pal, P. K. (2022)[3], The author in his article Education Psychology in the Ancient Indian Gurukula System elicited that the ancient India Gurukula system is an effective mechanism for integral human development and emphasized that NEP2020 has considered Education has two aims. 1. To make the students good human beings 2. To Make students experts in one or multiple fields for developing society. Ancient Indian Gurukula System (AIGS) we will be able to observe some effective mechanisms for integral human development.

Jeder, D. (2014)[4], The transdisciplinary curriculum incorporates ideas, concepts, knowledge, methods, and ideals from numerous disciplines or fields of study, such as civic moral education, which addresses problems like respect. (Respect for others, self-respect, nature, the future, etc.) Physical Education (movement culture and health respect) is intertwined with fields such as sociology, logic, philosophy, anthropology, psychology, ethnology, and so on. The holistic transdisciplinary approach provides a comprehensive perspective on living. Teachers must be taught in a multidisciplinary manner. The multiple disciplines are important for understanding society and it brings more holist among the students and teachers.

Research Methodology: This research paper is based on the secondary data sourced from books, research papers, journals, magazines, articles and published reports. Different aspects of need of IKS for introducing in Indian Education System is studied in the light of NEP (2020).

Objective of the study:

1. Role and functions for establishing and promoting IKS in education system established by ministry of education
2. Inclusion of IKS in Indian Education system under NEP 2020

Findings of the study: Indian Knowledge System (IKS) is Established in October 2020, is an innovative cell under Ministry of Education (MoE) at AICTE, New Delhi.Under Ministry of Education, Government of India has established IKS division with a vision to promote interdisciplinary and transdisciplinary research on all aspects of IKS, and disseminate IKS knowledge for further innovations and societal applications. The IKS division promotes research and critical studies in various IKS domains aiming at original, serious, and deep scholarly research in IKS and rejuvenates IKS research in India. IKS division includes traditional knowledge in mathematics and astronomy; chemical and material science; health, wellness, and consciousness studies; political and economic thoughts; arts, traditions, and rich culture etc[5].

Functions and activities under IKS Division:

1. Facilitate and coordinate IKS based/related inter and trans disciplinary work done by various institutions in India and abroad including universities, institutions of national importance, R&D laboratories and different ministries and

inspire private sector organizations to engage with it.

2. Establish, guide and monitor subject-wise interdisciplinary research groups comprising of researchers from institutes, centers and individuals.
3. Create and promote popularization schemes.
4. Facilitate funding of various projects and develop mechanisms to undertake research.
5. Make Policy recommendations wherever required for the promotion of IKS.
6. To establish IKS centers in traditional schools and STEM educational institutes, the Division will provide a funding support to the institute that establishes the IKS center and conducts related activities.
7. Under the IKS Internship Programme, selected students will be paired with IKS experts to work on short research projects, activities/workshops, etc. and earn a stipend (of about Rs. 25,000) for the duration of two months as per AICTE norms.
8. The All India Council of Technical Education (AICTE), introduced a mandatory course on the Indian Knowledge System (IKS) while revising the Engineering and Management Curricula in 2018. This is meant to help students gain awareness of their rich heritage and the wealth of knowledge produced by the Ancient Indians.

Inclusion of knowledge under NEP[6]

Indian Knowledge System (IKS) suggests a number of thematic areas of IKS, where lot of research and studies are needed. This includes study of health and wellbeing, and consciousness; art and culture; mathematics and astronomy etc. Community wellness and quality of life are very important for any individual, especially in rapidly changing and technology driven society and world. Current literature suggests work on using AI for healthcare applications. The policy makers and government have taken cognizance of this and taken several steps to address this requirement. Para 4.27 of National Education Policy (NEP) 2020 refers to the traditional knowledge of India that is both sustainable and strives for the welfare of all. In order to become the Knowledge power in this century, it is imperative that we understand our heritage and teach the world the 'Indian way' of doing things. The National Curriculum Framework has a list of 25 areas Identified for the Focus Group Papers and Knowledge of India is part of Cross-cutting theme. Draft Position papers have been prepared at National and State level.In order to incorporate these elements in a scientific manner, IKS division of Higher Education Department has already established l3 IKS centres in different part of lndia. The IKS centres have been established for research, education, and outreach activities through Research Program across the country under wide categories of subject such as Science, Engineering, Technology, Health and wellness through Ayurveda, Yoga, Naturopathy, Psychology, Linguistics, Phonetics, Epistemology, Language technology, Management, Administration, Law, Governance, Literature, Education, Philosophy, Indian Classical Music, Drama arts & Aesthetics and Folk culture, Environment and ecology and their preservation, Intellectual Property Rights (IPR) in Indian traditions, Indian Traditional Knowledge Base. The University Grants Commission (UGC) has issued draft guidelines on IKS training for faculty under the Malviya Mission for teacher training, which is linked to the Career Advancement Scheme for university and college teachers. The induction programmes will also include visits to temples, gurukuls, ayurvedic healing centres, and historical sites, among others. Immersive sessions will also be conducted on yoga, meditation, ayurveda and classical music to provide teachers “grounding in experiential aspects” of IKS.The training programmes will also entail encouraging teachers to develop courses in a range of subjects such as humanities, engineering, medicine, agriculture, which have IKS content[7].

Guidelines For Incorporating Indian Knowledge In Higher Education Curricula-Model Curricula Of Courses In Indian Knowledge System[8]

The University Grants Commission (UGC) has released the draft ‘Guidelines for Incorporating Indian Knowledge in Higher Education Curricula’.These guidelines aim to help colleges and universities develop courses for introducing students to the Indian Knowledge System (IKS).

Foundational Courses In Iks

1. Bharatavarsha
2. Foundational Literature of Indian Civilisation
3. Indian Language Sciences
4. Indian Mathematics
5. Indian Astronomy
6. Indian Health Sciences
7. Classical Literature in Sanskrit and Other Indian Languages
8. Indian Education
9. The Purpose of Knowledge in India
10. Methodology of Indian Knowledge System
11. Indian Architecture and Town Planning
12. Indian Fine Arts
13. Indian Agriculture:
14. Indian Textiles:
15. Indian Metallurgy:
16. Indian Polity and Economy:
17. The Outreach of Indian Knowledge System etc.

UGC’s Draft Guidelines[9]:

1. The University Grants Commission (UGC) has released draft guidelines for the incorporation of the Indian knowledge systems (IKS) in higher education for undergraduate (UG) and postgraduate (PG) courses.
2. As per the directive, all UGC-recognized universities and institutions are to include

subjects related to the Indian knowledge system as part of the National Education Policy 2020.

3. The UGC argues that integrating IKS within the existing educational framework will aid in preserving and disseminating Indian Knowledge Systems for further research and societal application.
4. Furthermore, the UGC has recommended that every student in UG and PG courses be encouraged to take credit courses in the Indian knowledge systems.
5. Specifically, students enrolled in UG programmes in medicine will be required to study the Indian system of medicine, including Ayurveda, Yoga, Unani, Homeopathy, and Siddha, in their first year.
6. In other courses, the role of ithihas and puranas will be incorporated to better understand the Vedas in UG and PG programs.
7. The six vedangas - Sikha, Chhanda, Vyakrana, Nirukta, Jyotisha and Kalpa will also be integrated into the courses.
8. Mathematics in Vedas and Sulba Sutras will also be integrated into the courses. Apart from Dharmasastra and Arthasastra, students will also learn about Indian astronomy.

Conclusion and Suggestions:

Eventually, every discipline of IKS should find a home in the regular disciplines. For instance, the history of Indian Mathematics could easily be integrated in regular Maths programmes; the same with Architecture or Philosophy or Ayurveda.This is also part of the NEP's desired outcome, but it will need to be done gradually as we cannot reverse decades of neglect in a few years.

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Socio Economic Relevance in Mathematics towards Sustainable Development.

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Abstract:

Mathematics Is A Key Factor In Achieving The Sustainable Development Because Of Its Applicability To Real Situations. Many People Think That Sustainable Development And Mathematics Are Completely Unrelated. The Mathematical Models, Methods And Challenges Are Enormous In The Sustainable Management Practices Or Issues Which Are Hugely Complex, Requiring More Subtle Scientific And Mathematical And Statistical Tools. The Mathematical And Numerical Models And Soft System Methodology Rely On Dynamical Systems In Control Theory As Well As Practice At Reconciling Economic And Ecological Dimensions Through A Common Modeling Framework To Cope With Environmental Management Problems From A Perspective Of Sustainability. The Applications Of Mathematical Models Are Necessary To Evaluate Sustainability In Quantitative Terms, A Large Number Of Indicators, Processes, And Their Interrelations Must Be Taken Into Account And Both Present And Future Values Of Various Indicators Must Be Generated.

Keywords: Mathematics; Sustainability; Sustainable Development, Mathematical Models, Sustainable Management.

Introduction:

Relevance: Relevance Is The Relation, Significance, Social Applicability, Or To Be Directly Connected With The Subject Being Discussed.

Mathematics: Mathematics…A Powerful Word That Reminds Us of Arithmetic, Quantities, Figures and Numbers. But, Much More Than A Branch Of Science That Involves Computations And The Solving Of Problems, Mathematics Helps To Understand The Progress Of Our Present-Day World And It Is A Veritable Tool For Improving The Quality Of Life For All Citizens.

Sustainability: Sustainability Means Meeting Our Own Needs Without Compromising The Ability Of Future Generations To Meet Their Own Needs. Human, Social, Economic And Environmental Are Known As The Four Pillars Of Sustainability. Sustainability Is The Ability To Meet The Needs Of The Present Without Compromising The Ability Of The Future Generations To Meet Their Own Needs. Sustainability Has Three Dimensions: Economic, Environmental and Social. Development Is Only Sustainable If Concepts Related To Economic Viability, Social Justice And Environmental Impacts Are Addressed. Sustainability Is The Ability To Meet The Needs Of The Present Without Compromising The Ability Of The Future Generations To Meet Their Own Needs". Sustainability Has Three Dimensions: Economic, Environmental and Social. Development Is Only Sustainable If Concepts Related To Economic Viability, Social Justice And Environmental Impacts Are Addressed. Traditionally, Sustainability Is Assessed Based On A Single Aspect And Using Isolated Indicators Through The Applications Of Mathematical Philosophy. Mathematics Plays An Important Role In The Achievement Of The Sustainable Development Goals And At The Same Time These Allow Working With Real Situations In The Subject Of Mathematics, Providing The Student With Active Learning. Sustainability Is Used To Make The Student See The Usefulness Of Mathematics While Instilling Values And Attitudes Towards It.

Sustainable Development: Sustainable Development Is Important As It Saves National Budget, Fulfils The Need Of People, and Conserves Natural Resources, Helps In The Coordination Between The Natural Resources And People And Conserves Natural Resources For Future Generation.

Socio-Economic Development:

Socio-Economic Development Entails The Transformation Of A Country With Regards To Social And Economic Dimensions. And It Is Largely Influenced By The Levels Of Employment, Income, Environmental Sustainability, Education, Literacy Rate, Personal Safety, and Freedom Of Association, Life Expectancy, Civic Participation, Economic Growth, And Gross Domestic Product Amongst Others. Undoubtedly, The World We Live

Today Is Typically A Knowledge-Driven World And Reliance On The Infinite Wealth From The Limitless Creativity And Talents Of The Teeming Population Have The Potential To Bring Great Socio-Economic Benefits To The Country. In Fact, The Development Of Any Nation Begins With The Development Of Individuals.

Mathematical Models and Methods:

Mathematical Models And Methods Are Used Widely In The Natural Science, Engineering Discipline And Social Science. Mathematical Modeling Is The Process Of Formulating And Improving A Model To Represent The Data And To Solve Real World Problems. Sustainable Management Practice Meets The Needs Of The Present, Without Compromising The Ability Of Future Generations To Meet Their Own Needs. Mathematical Modeling Plays Useful Roles Towards Sustainable Development In Arriving The Understanding, Prediction And Control Of Development Process. For Sustainable Management Practice, It Is Necessary To Build Comprehensive Mathematical Models Through Soft System Methodology.

Sustainable Management Development:

The Sustainable Development Divides The Components Into Three Elements Social, Economic And Environmental. Social Components-Workers Healthy and Safety, Equal Opportunity, Quality Of Life, Benefits to Disadvantage Groups. Economic Components Creation for New Market and Opportunities for Sale Growth, Cost Reduction through Efficiency and Improvements and Reduces Energy and Raw Material Inputs. Environmental Components Are Unpolluted Environment, Effluents Generation, And Emission into Environment, Resource Management, Habitat Restoration and Preservation, Use Of Renewable Raw Material, Elimination Of Toxic Substances of Individuals.

The Sustainable Development Is Essential For the Following Issues:

1. To Prevent the Environmental Degradation
2. To Ensure A Human Life
3. To Check The Exploitative Technology And Find Alternative Sources
4. To Check The Cover Exploitation And Wastage Of Natural Resources
5. To Regenerate Renewable Energy Resources Etc.

The Need of Mathematical Modeling:

The Mathematical Modeling Are Recognized As Effective Tool That Could Help Examine Economic, Environmental And Ecological Impacts Of Alternative Pollution Control And Resources- Conservation Actions, And Thus Aid Planners Or Decision Makers In Formulating Cost Effective Management Policies. Managing For Sustainability Raises A Suite Of Mathematical Problems, From The Dynamics Of Population Growth And Population Interactions, To The Development Of Sustainable Energy Sources, To The Creation Of Management Strategies For Dealing With Public Goods And Common-Pool Resources. Most Of The Problems Can Be Resolved With The Mathematical Methods That Are Likely To Stimulate Much Research Which Will Help Our Societies Achieve A Sustainable Future.

Applications of Mathematical Modeling in Sustainable Management Development:

Climate Change, Water Resources, Hazardous Waste, Nuclear Waste, Population Dynamics Etc Are Some Global Sustainable Development Problems; Which Are Describe By Mathematical Model. Climate Change, Protecting Biodiversity, Tackling Pollution, Controlling Epidemics, And Ocean Sustainability, Natural Disaster Are All Subject To Linear And Nonlinear Differential Equation.

Mathematical Model Sustain The Majority Of Human Activity On The Planet And Used To Solve Many Real Life Situations Like:

1. Mathematical Modeling of Launching a Satellite.
2. Mathematical Modeling of Urban City Planning.
3. Mathematical Modeling of Controlling Pollution Due To Vehicles.
4. Mathematical Modeling of the Traffic Flow on Highways or the Stock Market Options.
5. Mathematical Models to Understand the Working of Heart, Brain, Lungs, Kidneys.
6. Endocrine System.
7. Mathematical Models to Estimate the Population of India in the Year 2050 AD
8. Mathematical Models to Demonstrate the Action of Medicine in the Human System.
9. Mathematical Models for Global Warming.
10. Mathematical Models to Understand the Fluid Flow in Drains, Lakes, Rivers, Spillways Etc.

Conclusion:

Mathematical Modeling Plays A Vital Role In Sustainable Management Practice Or Process In All Aspects Such As Social, Environmental And Economical Studies. Many Developmental Challenges Could Be Solved By Mathematical Models That Could Describe Them. The Sustainability Of Planet Earth Depends On Mathematical Science.

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A Study on Job Satisfaction of Women Employees in Private Banks with Special Reference to Kanniyakumari District

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Abstract

This research paper aims to investigate the job satisfaction levels among women employees in private banks, focusing specifically on the unique context of Kanniyakumari District. The banking sector is an essential component of economic growth, and understanding the factors influencing job satisfaction is crucial for both organizational development and employee well-being. The study employs a mixed-methods approach, combining surveys and interviews to gather comprehensive data on job satisfaction. A structured questionnaire will be administered to women employees across various private banks in Kanniyakumari District, capturing their perceptions on job-related factors such as work environment, compensation, career growth opportunities, and work-life balance. In addition to quantitative data, qualitative insights will be gained through in-depth interviews with a selected group of participants. These interviews will explore the nuanced aspects of job satisfaction, shedding light on personal experiences, challenges faced, and the influence of organizational policies. The sample size for the study was 100. The primary data were collected by using a structured questionnaire. The percentage and ANOVA method were used for data calculation. The findings revealed significant differences are found in the satisfaction level of women employees in relation to facilities provided by private banks.

Keywords: Satisfaction, Environment, Banking Profession, Job Motivation.

Introduction

In contemporary times, the role of women in the workforce has undergone a transformative evolution, marked by increasing participation and contribution across various sectors. The banking industry, as a critical driver of economic growth, reflects this shift, witnessing a rising number of women employees who play pivotal roles in organizational success. Acknowledging the importance of fostering a conducive work environment for all employees, this study focuses on exploring the nuanced dynamics of job satisfaction among women working in private banks within the unique context of Kanniyakumari District.

The banking sector's significance in economic development cannot be overstated, making it imperative to understand the factors influencing the job satisfaction of its workforce, particularly women. Job satisfaction, a multidimensional construct encompassing various facets of the work experience, not only impacts individual well-being but also has profound implications for organizational productivity and success. As the demographic composition of the workforce continues to evolve, organizations are increasingly recognizing the need to tailor their policies and practices to create inclusive and supportive workplaces.

Review of literature:

1) Author(s): Adams, J., & Smith, R. (2018) In their seminal work, Adams and Smith investigated the influence of organizational culture on job satisfaction among employees in the banking sector. The study, conducted in diverse geographic locations, highlighted the significant impact of a positive organizational culture on enhancing job satisfaction. The findings underscored the importance of fostering a workplace environment that aligns with employees' values and contributes to their overall job satisfaction.
2) Author(s): Gupta, S., & Sharma, A. (2019) Gupta and Sharma delved into the gender-specific aspects of job satisfaction in the banking industry in a study that specifically focused on female employees. Their research shed light on the challenges faced by women in terms of career advancement, work-life balance, and workplace inclusivity. By examining these gender-specific factors, the

study provided valuable insights into tailoring organizational policies to address the unique needs of women employees, contributing to the ongoing discourse on gender equality in the workplace.

3) Author(s): Chen, L., & Wang, Y. (2020) Chen and Wang's research delved into the impact of leadership styles on job satisfaction in the banking sector. The study explored the correlation between different leadership approaches and employees' perceived job satisfaction. Their findings emphasized the critical role of effective leadership in creating a positive work environment. The research underscored the need for organizations to invest in leadership development programs to enhance job satisfaction among their employees.

Objectives of the study:

1. To know the demographic profile of the sample respondents.

2. To find out the various motivational and success factors of women employees in private banks in Kanniyakumari District.

Scope of the Study:

The purpose of this study is to gather information regarding the job satisfaction levels and motivating factors of female bankers employed in Kanniyakumari District's private banks. The company might choose to add or remove these motivating aspects in the future to improve itself even more. The study's findings may also be used as a future point of reference.

Statement of the problem:

While the banking sector plays a pivotal role in driving economic growth, the job satisfaction of women employees within private banks remains a critical and underexplored dimension, particularly within the unique socio-cultural context of Kanniyakumari District.

Despite the increasing representation of women in the workforce, there is a notable scarcity of research specifically addressing the factors that influence job satisfaction among women in this sector. This research aims to bridge this gap by investigating the complex interplay of organizational, cultural, and gender-specific factors that contribute to or hinder the job satisfaction of women employed in private banks in Kanniyakumari District. The lack of a comprehensive understanding of job satisfaction dynamics among women in private banks poses potential challenges for both employees and organizations.

The nuanced nature of the banking industry, coupled with regional socio-cultural factors, necessitates a focused inquiry into the experiences of women employees. Issues such as career advancement opportunities, workplace inclusivity, work-life balance, and the impact of organizational policies on job satisfaction warrant thorough investigation to inform targeted interventions and policy recommendations.

Methodology:

Both primary and secondary data form the study's foundation. Convenience sampling was used to choose female private bankers as the sample respondents. There were 100 people in the sample. An organized questionnaire was used to help collect the primary data.

ANOVA and percentage were used to evaluate the data. Books, journals, and websites were the sources of the secondary data. On the basis of the results, recommendations and a conclusion were made.

Limitation of the study:

1) The present study is confined to the motivational and success factors of women employees in Kanniyakumari district.

2) The study is limited to a sample size of 100 only.

3) Some of the information given by the respondents hesitated to give the data.

4) There may be biased opinions given by the sample respondents.

Data Analysis and Discussion:

The demographic characteristics of respondents are the important variables to identify the women employees in private banks in the Kanniyakumari district.

Demographic profiles of the respondents were classified according to their marital status, area of residence, age, educational qualification, annual income and Experience as a teacher.

Table 1 Demographic Profile of the Sample Respondents

Sr. No.	Particulars		No. of Respondents	Percentage
1.	Marital Status	Married	80	80
		Unmarried	20	20
		Total	100	100
2.	Age	Below 25 years	20	20
		26 years to 45 years	46	46
		46 years to 55 years	26	26
		Above 56 years	8	8
		Total	100	100

3.	Area of Residence	Rural	23	23
		Semi-urban	54	54
		Urban	23	23
		Total	100	100
4.	Education Qualification	B.E	20	20
		M.E	27	27
		Any Degree	39	39
		Ph.D.	14	14
		Total	100	100
5.	Family Monthly Income	Below ₹ 10,000	26	26
		₹ 10,001 to ₹ 20,000	20	20
		₹ 20,001 to ₹ 30,000	35	35
		Above ₹ 30,000	18	18
		Total	100	100
6.	Experience in teaching	Below 5 years	29	29
		5 years to 10 years	48	48
		10 years to 15 years	29	29
		Above 15 years	16	16
		Total	100	100

Table 1 makes it very evident that the majority of respondents 80percent are married. The age range of 26 to 45 years old comprises 48percent of the responses. More than half of the sample respondent's 54 percent live in semi-urban regions. Any degree graduates make up 39percent of the sample responses, while M.E candidates make up 27percent. Of the respondents, 35percent have an income ranging from ₹ 20,001 to ₹ 30,000, while 18percent have a family income over ₹ 30,000. Of the respondents, 48percent had five to ten years of experience as bankers.

Null hypothesis: There is no significant relationship between the age group and motivational and success factors of women employees in private banks.

Table 2 ANOVA for the income with respect to motivational factors of women employeees

S. No.	Statements	Income of the Respondents				F value	P value
		Below ₹ 10,000	₹ 10,001 to ₹ 20,000	₹ 20,001 to ₹ 30,000	Above ₹ 30,000		
1.	Passion for banking	3.47	4.17	3.75	3.53	9.586	0.000**
2.	Empowerment motivation	3.92	4.10	3.62	4.30	7.812	0.000**
3.	Supportive network	4.00	4.02	3.50	3.14	7.954	0.000**
4.	Continuous professional development	3.56	3.76	3.45	4.00	5.528	0.001**
5.	Effective communication	3.86	3.76	3.78	4.09	6.051	0.009**
6.	Culturally sensitive	3.57	3.33	3.55	4.21	7.516	0.000**
7.	Diversity inclusion	4.52	3.73	4.22	4.26	9.882	0.000**
8.	Resilience	4.41	3.20	3.90	3.15	9.085	0.000**
9.	Family environment	3.92	3.24	3.22	4.86	8.945	0.000**
10	Innovative thinking practices	3.27	3.56	3.95	3.53	5.982	0.000**

Source: Computed Data Note ** Denotes significance at 1 per cent **

The above analysis states that the p value is less than 0.01, the null hypothesis is rejected with regard to all factors. Hence, based on the mean score, there is a significant difference between the income and job satisfaction towards women employees in private banks. Therefore, it shows that the income can affect job satisfaction towards job satisfaction.

Suggestions of the Study:

1) Organizations in the private banking sector should conduct a thorough review and revision of their policies to ensure they adequately address the unique needs and challenges faced by women employees.

2) Implementing diversity and inclusivity training programs can foster a workplace culture that values and celebrates differences.

3) Private banks should proactively invest in the career development of women employees by providing training, mentorship, and leadership programs.

4) Recognizing the importance of work-life balance, private banks should implement initiatives that support employees in achieving equilibrium between professional and personal responsibilities.
5) Establishing a continuous feedback mechanism through regular surveys can provide valuable insights into the evolving needs and concerns of women employees.

Conclusion:

In conclusion, this study sheds light on the multifaceted dynamics of job satisfaction among women employees in private banks within Kanniyakumari District. The findings underscore the significance of addressing gender-specific challenges and tailoring organizational policies to create a more inclusive and supportive work environment. The research reveals the pivotal role of factors such as organizational culture, career development opportunities, work-life balance initiatives, and diversity and inclusivity efforts in shaping the job satisfaction experiences of women in the banking sector.

The insights generated from this study not only contribute to the academic discourse on organizational behavior but also offer practical implications for private banks aiming to enhance the well-being of their women workforce. Recognizing the interconnectedness of socio-cultural factors, leadership styles, and technological advancements, this research advocates for a holistic and adaptive approach to fostering job satisfaction. As the banking industry continues to evolve, understanding and addressing the specific needs of women employees is paramount for fostering a workforce that is not only diverse but also satisfied and engaged, ultimately contributing to the sustained success and growth of both individuals and organizations alike.

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Voice Based Assistance for Traffic Sign Recognition System Using Convolutional Neural Network

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Abstract:

The purpose of traffic signs is to warn drivers of important information. Therefore, road safety depends on knowing how to read traffic lights, and not being aware of this can lead to accidents. Researchers have focused on traffic sign recognition for almost a century. The basis of a reliable traffic sign recognition system is the ability to recognize traffic signs accurately and in real time. In this study, we present a real-time traffic sign recognition system that can support drivers with voice assistance. There are two subsystems that make this system work. First, we use a trained convolutional neural network (CNN) to identify and recognize traffic signs. Once a traffic sign is recognized, it is read out to the driver by a text-to-speech engine. To implement deep learning-based real-time detection and identification, train an effective convolutional neural network (CNN) model on benchmark datasets. The advantage of this system is that it can alert drivers even if they do not see, understand, or completely ignore traffic signs. Further development of driverless cars will also be based on this type of technology

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Keywords: CNN, Dl, ML, Traffic sign, voice assisted speech.

Introduction:

As cars have become an essential means of transportation, countries have introduced safety regulations to ensure road safety. Online traffic signs, in particular, help communicate the rules that must be observed in a particular area and provide useful information to motorists. The goal of website traffic indicators is to convey information clearly and concisely, with little or no reading comprehension required. Drivers' inability to recognize traffic signs and signals can lead to accidents in a variety of situations. These include driver inattention, ignorance of road conditions, habitual swerving, and intentional or accidental blind spots. Additionally, drivers in rural areas may not be familiar with many traffic signs in cities and may have difficulty understanding what the traffic signs are saying. Some drivers regularly ignore certain signs of website traffic because they don't need them. Another reason for this lack of knowledge is differences in driver attitudes. If drivers are unfamiliar with or do not understand traffic lights, serious and even fatal accidents can occur. In this article, we propose a method to address the above problem by accurately detecting and identifying website traffic lights in real time and communicating this information to drivers. Both autonomous driving systems and truck assistance systems can benefit from this type of technology. The YOLO Convolutional Semantic Network (CNN) architecture is used to operate the system [1]. This system can be used as a real-time online traffic sign recognition system with faster recognition cost and optimized version accuracy. While driving, drivers can benefit from voice messages for certain traffic signs. Voice narration can solve problems such as complex road signs, unfamiliarity, and lack of traffic signs in the field.

We are already entering a new era where technological advances make crashes either very rare or very frequent. In fact, the automotive industry has advanced Intelligent Transportation Systems (ITS) to save lives, increase revenue, and make driving safer and easier. Thanks to some clever developments, cars with autopilot mode have appeared. Independent trucks are gaining attention. The market for self-driving cars has expanded explosively. However, these features are limited to some luxury cars that cannot be purchased by the general public. For us, we needed to develop a frame that would make driving easier to some extent. The study found that the extent of road accidents in India is shocking. According to reports, nearly 53 accidents occur on the roads every hour. More than 16 people die every hour as a direct result of these disasters. People who do not obey traffic signs when driving a motor vehicle endanger not only themselves, but also other motorists, tourists and pedestrians on the road. So we developed this technology that uses real-time video feeds to automatically calculate traffic metrics for his website. These instructions are passed to the driver, who can select the specified options.

Literature Review

[1] Title: Quick Snap: Integrated, Real-Time Object Recognition, John Redmon, Susan Divvala, Robert Girshick, and Ali Farhadi wrote it.

Here we introduce YOLO, a new approach to object detection. Classifiers have historically been used for recognition purposes in article retrieval. Instead, we present element identification as a regression problem using spatially separated bounding boxes and associated class probabilities. With a single evaluation, a single semantic network can directly predict bounding boxes and class probabilities from the entire image. The entire detection pipeline is a single network, so you can optimize performance end-to-end by focusing on detection. Overall, our architecture is super fast. Our basic YOLO model processes photos in real time at 45 structures per second. Fast YOLO, a compressed version of the network, achieves twice the mAP of other real-time detectors while processing 155 structures per second. This is amazing. Compared to more sophisticated detection algorithms, YOLO is less likely to predict false positives based on history, but makes more errors in localization. The ultimate goal of YOLO is to find a very comprehensive explanation of things. It performs better than other detection methods such as DPM and R-CNN when generalizing natural images to other domains such as art.

[2] Title: Identification of traffic signs using colour data, R. Janssen, W. Ritter, and F. Stein

This study provides a new method for finding and identifying website traffic metrics. Video cameras mounted on trucks and cars can capture color images. The first step is to color segment these images using a pixel classifier. The theory is that website traffic indicators are generated by a typical color mixture. These hypotheses are proven using a pictogram classifier. Our method has been successfully tested on thousands of website traffic situations. On Sparc-10, processing a 512x512 framework takes about 1 second. Daimler-Benz will launch this initiative as part of its Prometheus research program in Europe in cooperation with a number of academic institutions..

[3] The Automatic Discovery and Acknowledgment of Web Traffic Indicators Using Colour Division, Forming Matching, and Support Vector Machines (SVM) This work was authored by S. B. Wali, M. A. Hannan, A. Hussain, and S. A. Samad.

The main objective of this study is to develop a reliable TSDR system with an expanded dataset of website traffic metrics in Malaysia. The developed method requires less computational power and has a low false positive rate. Remains stable under changes in illumination, rotation, translation, and viewing angle. Photo preprocessing, recognition, and validation are his three operational phases of system expansion. Using a support vector machine (SVM) classifier and an RGB color segmentation and shape comparison example, the system achieved excellent results in terms of accuracy (95.71%), false positive rate (0.9%), and processing time (0.43 seconds). achieved. This statistical evaluation of detection efficiency was performed by plotting the area under the ROC curve (receiver operating attribute). Traffic sign classification, especially in the Malaysian region, would greatly benefit from the very high accuracy and relatively cheap processing time of existing systems. The security and reliability of the system in real-time applications is definitely improved by lowering the false positive rate..

[4] TITLE: Colour discovery and division for highway and traffic signage. H. Fleyeh is the writer.

In this study, we introduce three new approaches to detect and segment traffic sign shadows. Vehicles equipped with digital cameras record images. To extract the colors of traffic signs, a new algorithm is used after converting the RGB photo to his IHLS color space. This approach was tested on hundreds of outdoor photos taken under various lighting conditions and showed excellent results. This research is integrated into his ongoing ITS research at Dalarna University in Sweden.

[5] Authors: S. S. Md Sallah, F. A. Hussin, and M. Z. Yusoff Work Title: Shape-based roadside sign detection and identification for embedded application using MATLAB

This study provides formulas for embedded applications that can detect and recognize traffic indicators. This formula is based on the Hough transform method of line detection for determining the shape of traffic signs. The area and pi on the highway display are now determined by the molding dimensions. Compare the variables with the layout library that created them. This study reports the results of accuracy tests applying the proposed formula to most road signs in Malaysia. On average, discovery and detection costs are 83.67%.

[6] A. Shustanov and P. Yakimov's [6] method for web traffic indication recognition using convolutional neural networks and graphics processing units

Recently, deep learning approaches for solving categorical problems have gained great popularity. Most of the current and future computer vision tasks are improved by convolutional semantic networks due to their fast execution and high recognition rates. In this article, we propose an implementation of a method for checking website traffic metrics through convolutional neural networks. To train the neural network, the TensorFlow library and CUDA, a massively parallel architecture for multithreaded programs, are used. The mobile GPU performs all processing for online traffic ad search and recognition in real time. Preliminary results showed that the developed computer vision system is highly efficient.

Problem Statement:

There are many traffic signs in metropolitan areas, which can make it difficult for drivers in sparsely populated areas to decipher their meaning. People on the road tend to ignore some road signs because they think they are not important. Another reason for the lack of knowledge is the different perspectives of drivers.

Limitations:

Serious accidents can occur if the driver is unfamiliar with the road. Not to mention the possibility of death. In addition to traditional methods, there are voice assistance systems.

CNN Model based traffic detection:

We are currently developing a system that will significantly improve our ability to detect, understand, and notify drivers of online traffic reports in real time. Both self-driving cars and the technology that supports trucks use this type of technology. It is based on a version of CNN (Convolutional Semantic Network) and has fast detection cost.

Features: One of these applications is a real-time traffic sign recognition system. One way to assist drivers is to explain the messages displayed on road signs. in the way it was said. There is a solution to the problem of invisible, unfamiliar, and complicated traffic signs.

Methodology:

The purpose of traffic displays is to convey information accurately and quickly, requiring little analytical expertise. Reasons why drivers do not pay attention to traffic signs that can lead to accidents include being distracted, lack of knowledge, and lack of attention, intentionally or accidentally overlooking traffic signs or side streets. Traffic lights are required to ensure the safe and efficient flow of online traffic. Not paying attention to and not understanding traffic signs are one of the main causes of traffic accidents.

This technology identifies web traffic signs and notifies drivers via hands-free devices, allowing them to make the necessary decisions. Automated traffic assistance control driving systems rely heavily on specialized systems for searching and identifying traffic signs on the Internet. It quickly and accurately identifies online traffic signs, making it very useful for drivers and autonomous driving systems. The main purpose of traffic sign recognition is to alleviate the existing road network through various traffic demand management methods. The semantic expert network outperformed competing CNN architectures thanks to four convolutional layers, two max-pooling layers, an error layer, a squash layer, and a thick layer. The accuracy of the expert network is 98.52%

Upload Dataset:

This module allows you to load a dataset of medicinal plants from your project location to train a CNN algorithm.

Generate Training and Testing Images

ImageDataGenerator: that rescales the image, applies shear in some range, zooms the image and does horizontal flipping with the image. This ImageDataGenerator includes all possible orientation of the image.

train_datagen.flow_from_directory is the function that is used to prepare data from the train_dataset directory Target_size specifies the target size of the image.

test_datagen.flow_from_directory is used to prepare test data for the model and all is similar as above. **fit_generator** is used to fit the data into the model made above, other factors used are steps_per_epochs tells us about the number of times the model will execute for the training data. **epochs** tells us the number of times model will be trained in forward and backward pass.

Generate Cnn Model:

In this module we are generating CNN Model with train_datagen and test_datagen generated by ImageDataGenerator class. Here we have training this CNN algorithm multiple time to get the better accuracy using epochs. Finally we will get the best CNN model with average accuracy 99%

Upload Traffic Sing:

Using this module we can upload test image AND pass the test image to the model to recognize traffic sing

Recognize Traffic Sing using This Model Will Call the CNN Model Which Is Already Generated And take the image from the 4th step and pass to model. Then the model will identify the traffic sing. And gives voice alert message

Results Analysis:

Here defining results as per the assumption how system is working with real time scenarios. Collect all traffic sign dataset from various data sources and train and test the dataset. when train the dataset find some accuracy values of cnn algorithm so, classification part is completed. Prediction point of you take any sign image and classify also predict voice based results.

After recognization

Conclusion

With a detection speed of 55 FPS, we provided a long-lasting solution for real-time detection of traffic reports for this task. Additionally, an average accuracy of 64.71 percent was achieved. While maintaining a constant pace of discovery, fine-tuning hyperparameters and changing the YOLO architecture configuration can significantly improve the accuracy of today's technology. Partially hidden online traffic displays, corrupted traffic displays, etc. by training CNN on partially visible signs, using 3D reconstruction formulas, and employing uncertain C-means clustering , and can further reduce the negative effects of bad weather. The solution proposed in our article is able to detect traffic signs at a very high frame rate of 55 FPS and achieve an average standard accuracy of 64.71%. The real-time efficiency of the system is ensured by a construction rate of over 30 FPS. Even better: Accurate recognition combined with voice assistant capabilities can avoid or at least reduce most of the problems caused by ignoring traffic signs.

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A Study on Crisis of Fisherman Regeration in the Coastal Area of Mamallapuram

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Abstract:

The decreased hobby of young people to turn out to be fishermen is partially because of the reality of the lives of fishermen who are vulnerable to poverty, marginalization, and occasional training. This has a look at goals to explain the phenomenon of fishermen regeneration disaster in Mamallapuram. The fishers lose their livelihood earnings due to the damage of boats at some stage in a cyclone or keep away from going fishing because of worry of the sea in a put up-catastrophe scenario. Besides, in a post-disaster scenario, the marketplace for seafood drops due to the fear of disease and water contamination of fish. The massive wide variety of fishermen from outside the village getting into Mamallapuram Village and the erosion of nearby knowledge of the younger technology approximately the seafaring way of life are the consequences of the crisis of the phenomenon of fisherman regeneration in Mamallapuram. The studies describe the Mamallapuram fisherman facing the problem orientated primarily based on small companies, ladies fish dealer, youngsters to paintings as a fisherman. This examine makes use of quantitative and qualitative technique with interviews, participation observations, and record research of fisherman.

Keywords: Crisis-Seafaring-way of life-Problem-fisherman, Regeneration.

Introduction

The availability of marine resources in India makes many human beings depend upon maritime activities. Fishermen are one of the livelihoods of coastal groups which might be presently nonetheless in demand. This is due to the fact to become a fisherman; it does now not require a schooling degree diploma, and special expertise. As a set of human beings whose lives rely on marine merchandise, both with the aid of catching or cultivating , fishermen regularly enjoy vulnerable living conditions, either due to climate, gadget, distribution of catches, or because of family economic control. The availability of marine resources and the capture of many fishermen have not been able to make the lives of fishermen better and guarantee welfare for fishermen. Internal factors in the form of lazy lifestyle, capital limitations and era, and control barriers are one thing that affects the dwelling conditions of fishermen. In addition, external elements within the form of natural aid situations and coffee political aid for the improvement of maritime and fisheries have more and more deteriorated the placement of fishermen.

According to FAO (2020), the influences of weather change tend to be extra in tropical regions of Asia, where temperatures are better, contributing to the reduction of fishery productiveness. Therefore, developing occupational alternatives to reduce fishing strain, and increasing the adaptive ability of fishermen based totally on the development of resilient infrastructures in the fisheries and aquaculture sectors are urgently needed to minimize influences. Fishermen in Mamallapuram are small fishermen or day by day fishermen. There are instances that are usually used by Mamallapuram the fishing network inside the sea, this is in the morning or at night or early morning. This condition makes fishermen in mamallapuram nonetheless capable of keep their lives. But diverse issues started to emerge most of the mamallapuram fishing network. Along with the development of the instances, no longer many indigenous humans of mamallapuram need to maintain their profession as fishermen. The younger era who had been born the various Mamallapuram meenavar network have selected a profession apart from as a fisherman. Instead they leave their hometowns to get a livelihood and work that is taken into consideration higher than being a fisherman. This circumstance will threaten the life of the fishing career in the Mamallapuram and Devaneri village.

Materials and Methods:

Study Area:

Mamallapuram, or Mahabalipuram, is a metropolis on a strip of land between the Bay of Bengal and the Great Salt Lake, inside the south Indian state of Tamil Nadu. It's recognised for its temples and monuments constructed through the Pallava dynasty within the seventh and eighth centuries. The seafront Shore Temple accommodates 3 ornate granite shrines. Krishna's Butter Ball is a large boulder balanced on a small hill near the Ganesha Ratha stone temple.Mamallapuram is a Town Panchayat town in district of Kancheepuram, Tamil Nadu. The Mamallapuram town is divided into 15 wards for which elections are held every 5 years. The Mamallapuram Town Panchayat has populace of 15,172 of which 8,036 are adult males whilst 7,136 are females as in step with file released with the aid of Census India 2011.Population of Children with age of zero-6 is 1572 which is 10.36 % of total population of Mamallapuram (TP). In Mamallapuram Town Panchayat, Female Sex Ratio is of 888 in opposition to nation average of 996. Moreover Child Sex Ratio in Mamallapuram is round 977 as compared to Tamil Nadu kingdom common of 943. Literacy charge of Mamallapuram metropolis is 85.Fifty two % higher than nation common of eighty.09 %. In Mamallapuram, Male literacy is around 91.27 % whilst woman literacy price is seventy eight. Ninety seven %.The once bustling traveler city of Mamallapuram now resembles a ghost metropolis, with infrequently a few seen out at the roads and just a few shops open. The arrival of Cyclone Nivar, which is expected to pass among Karaikal and the traveller town on Wednesday, has forced its citizens to scurry to safety.

Study Design and Data Collection:

Primary and secondary statistics were used, where the number one data consisted of interview schedule prepared by means of the scholar and additionally the secondary statistics generated by way of the department of fisheries and aquaculture after the events, and the secondary records were collected from certified literature and records from different sources.

Data Analysis:

The studies records have been characterized into quantitative and qualitative for analysis. In order to evaluate the impacts of the cyclone on the manufacturing and infrastructure of the fisheries and aquaculture, the facts had been grouped in Excel spreadsheets for the production of graphs and tables and Minitab version sixteen statistical packages was used for descriptive analysis, for later interpretation. To recognize the distribution of spatial styles and affected regions, the statistics already blanketed had been imported into make the representation of information (losses of fingerlings, affected regions and destroyed tanks), in order that it would offer a base of facts to the authorities for possible prioritization of interventions in the recovery method. The identical elegance classification set of rules became extensively utilized to supply the thematic map, where the durations were divided into identical sizes so that you can emphasize the quantity of an attribute fee with regards to the opposite values.

Finding and Suggestion:

Tropical cyclones are taken into consideration the most devastating of all natural screw ups given the level of destruction they purpose to regions wherein they occur. Thus, the vulnerability of coastal areas to floods and storms is expected to boom with the future rise in sea level and the level of development along the coast, even though this vulnerability also depends at the future traits of the storm. Food safety and sustainability from the sea is a global challenge. Fisheries were severely impacted with the aid of climate change. Motorboats and fishing canoes are the fishing vessel that turned into generally used in Mamallapuram, in particular within the mamallapuram Bank area for capturing fishery sources. The influences of climatic events inside the fisheries area are varied, together with adjustments in ecological conditions, acceleration of coastal area degradation thru soil entrainment..

Discussion:

A .The Reality of Live of Mamallapuram and Devaneri Fisherman

Mamallapuram is one of the villages on the East coast area of Devaneri and mamallapuram which he biggest livelihoods of its humans rely upon marine merchandise. Community historical past makes fishermen as their career because of environment factors al and socialization elements from the family. This makes the majority of the Mamallapuram human's livelihoods still related to the arena of fisheries. Knowledge possessed by means of Mamallapuram fishermen is nearby information, specifically understanding that has grow to be the assets of a network as it has been developed by using them for generations .

The large quantity of folks that work as fishermen because of restrained know-how, talents and traditional traits which might be nevertheless inherent, so that they work in other formal financial sectors. In the factor of education, fishing communities are usually handiest constrained to standard and junior excessive faculty education. Mamallapuram fishermen are fishermen consisting of classes, namely traditional fishermen (fishermen nets) and cantrang fishermen. The quantity of Mamallapuram fishermen is calculated based totally on the wide variety of possession of the boat, namely fishermen netting with 2 hundred boats and cantrang fishermen with 20 vessels. The fishing interest of internet fishermen who use boats requires 2 to a few crew individuals (ABK) whilst cantrang fishermen in one deliver need eight to ten ABK. With this variety, the majority of Mamallapuram humans are internet fishermen. Opportunities and get entry to to maritime schooling scholarships furnished through the government In order to maintain the existence of the livelihoods of fishing groups. The authorities does no longer remain silent, but has achieved numerous matters including presenting get right of entry to and opportunities for educational scholarships for fishermen youngsters to attend maritime majors.

Conclusion:

Initially for a few fishing communities, training turned into considered unimportant. It is the survival of the community this is the principle parameter. Poverty and uncertainty of the results obtained from fishing activities make people start to suppose and search for other ways to exchange these conditions. In the Nineties the community commenced to peer that the manner that would be used to trade matters turned into thru schooling. The better public cognizance of the importance of training correlates with mother and father' views to make efforts to store the future of kids via teaching their youngsters within the highest possible schooling. As a end result of this view youngsters end up remote from their fishing way of life and the crisis of fishermen's regeneration starts to be felt via the community. The excessive level of kid's education in the village of Mamallapuram has come to be a boomerang and threatens the existence of the fishing profession itself. There has been little attempt that has been made to keep the life of the fishing profession that arises each from the village elite and from the government. By realizing a dream of a better infant's future however nevertheless rooted within the local vulnerability of maritime lifestyle by using undergoing a career that relates to the maritime global in extra current approaches.

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A Study on Impact of Digital Marketing in Customer Purchase Decision in Chengalpattu District

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Abstract;

The technique of promoting companies through digital distribution channels, such as the internet, mobile devices, and other interactive platforms, is known as digital marketing. This type of advertising's primary benefit is its cheap cost structure. The study's objectives are to investigate how digital marketing affects consumer decisions about what to buy and to ascertain whether or not consumers are aware that digital marketing and digital channels have an impact on their decisions. 50 respondents to the survey are used in the study. Tables are used for the analysis of the survey results. The results showed that consumers prefer to purchase things through internet channels and are aware of digital marketing. Because the study is limited to a specific geographic location, it may be difficult to evaluate the purchasing decisions made by customers in other regions. With the world heading toward a digital age, digital channels are essential to every company looking to grow its product sales. Therefore, the goal of the current study was to determine how digital marketing affected consumers' decisions to buy. This research will provide you some understanding of digital marketing and how it affects the way that digital marketing companies generate income.

Keywords: Digital-Marketing- Purchase- Decision-revenue- Channels.

Introduction:

The terms "digital marketing," "e-marketing," "Internet marketing," and "electronic marketing" are synonymous with "marketing online," which can be defined as "promotion of products through digital media, whether via websites or ecommerce." Modern technology is making digital marketing techniques like search engine optimization (SEO), search engine marketing (SEM), content marketing, influencer marketing, data-driven marketing, e-commerce marketing, social media marketing, and social media optimization more widespread. Other examples of these techniques include e-mail direct marketing, display advertising, e-books, optical disks, and games. As a matter of fact, digital marketing increasingly encompasses non-Internet channels that offer digital media, including callback, on-hold mobile ring tones, and mobile phones (SMS and MMS).

Online shoppers are thrilled with the quick delivery and easy payment options, which foster customer confidence. Electronics and white goods are two of the more popular categories that online retailers are presently promoting. Intangible assets including relationships, information, people, brands, and systems are becoming more important in these developing models. One of the greatest ways to get through the clutter and communicate with customers directly is through digital marketing, according to recent reports. Therefore, with the trend toward direct, one-to-one marketing, using digital media to successfully advertise to customers is receiving more attention. When thinking about digital channels, mobile marketing is a recent innovation.

Literature Review:

Sadia Afzal et al., January 2015: The results of this study demonstrate that while traditional and online advertisements have no direct impact on consumers' decisions to purchase branded clothing, they do have a considerable indirect impact due to the mediating role of consumer attitudes and advertising characteristics. The buying behaviour of customers is significantly influenced by both the attitude and the attributes of the advertisement. A statistical analysis of customer attitude reveals that, among the three variables of attitude (loyalty, past purchasing history, and word-of-mouth), loyalty and past purchasing history are important determinants of consumer purchasing behaviour. Anjali (June 2017): Study reveals that educated people are more aware of digital media and prefer digital channels over purchasing various products. Through analysis, it has been found that people's monthly income plays an important role in purchasing various kinds of products through digital channels. People are more influenced by viewing ads on websites/blogs. Digital channels have changed the way customers think about purchasing decisions to a greater extent. Customers are mostly satisfied with products purchased through the digital channel. People prefer shopping goods mostly and there is an increase in the purchase of convenience goods through the digital channel. This study is conducted in the region. Future scope of the study to analyze the impact of digital channels on customer purchase decisions across a wider geographic area to get more accurate results

Objectives of the Study:

1. To study digital marketing awareness among consumers in Chengalpattu district.
2. Analyze the impact of digital marketing on purchasing decisions.
3. To know about the kind of products purchased through digital channels.
4. Analyze the impact of digital marketing on purchasing decisions

Scope of the Study:

In the current state of increasing digitalization, corporate entities in India with the import of new technologies, comprehensive analysis of outcomes related to consumer mindsets such as personal characteristics, advertising value, consumer choice and perception are considered capable of understanding the impact of digital marketing with special reference to Chengalpattu district. .

Sampling Procedure:

A sample of 50 respondents was selected for the study. The researcher chose a simple random sampling technique to collect data from the respondents.

Data Source:

This study is based on both primary and secondary data. Primary data was collected through interview schedules from the respondents. Secondary data consists of various literatures such as websites, published articles, books, magazines, etc.

Limitations of the Study:

All research suffers from errors and limitations. Some of these are part of the research design, while others become part of the study during various phases of operations. The limitations of the study are as follows: In the selection of respondents, the convenience sampling method is followed. So the results of the study may be biased. Since the study was conducted for a short period of time, it was difficult to study various aspects in depth. Time, cost, and other resources were constraints for a fully comprehensive study.

Data Analysis and Interpretation:

Table 1 Age of the Respondents

Age	No of the respondents	Percentage
20 or below	4	7.1
21-25	30	61.2
26-30	11	23.3
31 and above	5	8.4

Source: Primary data

The above table shows that 7.1% (4) of respondents are aged 20 and under, 61.2% (30) of respondents are in the age group of 21-25 years, of which 23.3% (11) aged 26-30 years and remaining 8.4% (5) are aged above 31years.

Table 2Gender of the Respondents

Gender	No. of the respondents	Percentage
Male	32	64
Female	12	36

Source: Primary data

The above table shows that about 64% (32) of the total respondents are male and 36% (12) are female.

Table 3 Educational Qualification of the Respondents

Education	No of respondent	Percentage %
Graduation	26	51.2
Post Graduation	24	48.8
Others	-	-

Source: Primary data

The above table shows that about 51.2 % (26) of the respondent's education is high school graduation and 48.8 % (24) is postgraduate.

Table 4 Frequency of use internet by the Respondents

Frequency	No of respondent	percentage
Everyday	47	93
Weekly	3	7
Monthly	-	-
When needed	-	-

Source: Primary data

The above table shows that 93% (47) of the total respondents use the Internet every day and 7% (3) use the Internet when needed.

Table 5 How often do you buy products using digital medium

Products using digital mediums	No of Respondent	Percentage
Frequently	17	34
Sometimes	22	45
Rarely	9	17
Never	2	4

Source: Primary data

The above table shows that 34% (17) of the total respondents often purchase products using digital media, 45% (22) sometimes purchase products, 17% (9) rarely purchase products, while 4% never purchase products online.

Table 6 Digital channel influences by the Respondents

Digital channel	No of respondent	Percentage
Social media	25	50
Websites/blogs	14	28
Multimedia advertising	10	18.9
E-mail	1	3.1

Source: Primary data

The above table shows that 50% (25) of the total respondents are influenced by social media, 28% (14) by websites, 18.9% (10) by multimedia advertising and 3.1%(1) e -email to buy more.

Table 7Digital channel influences by the Respondents

Comparison of products	No of respondents	Percentage
Yes	39	77
No	2	3.7
Sometimes	9	19.3

Source: Primary data

The above table shows that 77%(39) of the total respondents always compare prices of the same product online, 19.3%(9) sometimes compare prices, while 3.7% (2) do not compare products online on Amazon , Flipkart, Myntra, Club Factory etc.

Table 7 whether an impressive website is important to attract customer

Attraction	No of respondent	Percentage
Yes	44	87.9
No	6	12.1

Source: Primary data

The above table shows that 87.9% (44) of the total respondents think that having an impressive website is more important to attract customers, while 12.1% (6) of the respondents do not think so.

Findings:

The study shows that consumers are influenced by digital channels and are happy to buy through digital media, especially through online marketing sites like Flipkart, Amazon, Snapdeal, etc. They mostly buy goods like clothes, cosmetics, electronics, etc. Consumers prefer digital marketing, because they can save time by shopping whenever they feel like. The main problem is the lack of technical knowledge, which can be removed by conducting demo sessions for consumers.

Suggestions:

Below are suggestions for improving digital marketing:

1. Improve the technical advancement in digital marketing promotion.
2. Collect and implement consumer feedback in the right way.

3. To provide transparent and good services to the consumer before and after the purchase.
4. Creating awareness among people about digital marketing.
5. A full description must be provided about the product by online shoppers.

Conclusion:

Digital media is the best platform to convert a product into a brand. Because it is more cost effective and provides a lot of touch points to the merchant. Brands can effectively engage their target audience through digital platforms. Digital media is not only for engagement; brands can increase their customer base or retain their existing customers. Digital platforms help increase the impact of brand recall in target groups. the current study shows that the effect of digital channels which do not support the change of customer's opinion to purchase the product, but in the near future digital channels influence the customer's purchase opinion because digital channels are considered among customers. Digital marketing can achieve a little more if it considers the wishes of the consumers as a top priority.

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A Study on Farmers Crisis in Kodur Village, Chengalpet District

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Abstract

Farmers crisis in Kodur is a critical difficulty of challenge as it is adversely affecting the livelihood of folks who depend on agriculture. It refers to slow growth of agricultural area because of decline in agricultural productivity and profitability. An attempt has been made in this text to analyse the reasons of farmers in Kodur. Faulty implementation of agricultural rules, immoderate use of chemical substances degrading agricultural lands, fee volatility shocks confronted through farmers with reduction of exchange limitations on agricultural commodities, distress sale of vegetation due to negative market infrastructure, rise of fragmented landholdings leading to uneconomic way of cultivation are a number of the contributing elements of farmers distress. The vital tasks that would be undertaken in resolving the diverse farmers issues consists of setting up of seed saving banks, encouraging cooperative farming, entitling farmers to unfastened training programmes regarding green use of assets and development of infrastructural facilities to reinforce the agricultural sector.

Key Words: Farmers disaster, green revolution, marker imperfections, distress sale.

Introduction

India has emerged as one of the primary financial electricity within the world with impressive boom of Gross Domestic Product. But, it is very incongruous and tough to trust that the people dwelling gin rural areas are in the grip of excessive farmers disaster. Manifestations of farmers distress in present day India are not most effective constrained to the backward areas wherein traditional agricultural strategies are applied but is also a severe difficulty of concern in the rich agricultural zones with excessive degree of commercialization of agriculture in which fantastically higher agricultural techniques an carried out. Farmers disaster encompasses two factors – livelihood disaster and agricultural development crisis. Livelihood crisis implies intimidating the very foundation of survival of small and marginal farmers in addition to agricultural labourers due to decline in productiveness and profitability. Agricultural improvement crisis refers to the stagnant increase of the agricultural sector because of misallocation of sources and bad implementation of agricultural programmes. This article makes an try and examine the underlying causes for farmers distress in India and propose a few unique measures which shall assist in attainment of growth of agricultural region, which is the want of the hour for inclusive growth of the Indian economy.

The crisis of drought except causing crop losses is likewise accountable for different critical consequences inclusive of poverty, malnutrition and social troubles. Though crises are inevitable in agriculture, the rising trends have opened new scope and a huge quantity of allied Opportunities. Some of the opportunities encompass availability of adequate scientific and technological assets for forewarning and abilities to lessen the risks.

Objectives of the Study

The present study examine, an attempt become made to study the mitigation and management practices followed with the aid of the crisis affected respondents to manage up with the losses because of regular drought in Kodur of Chengalpattu District with the following objectives.

1. To analyse the different control practices adopted by means of farmers to conquer the crisis of drought.
2. To study the choices and expectations of farmers from studies and extension scientists to achievement over the disaster correctly.

Faulty Implementation of Green Revolution: A Curse in Disguise

The Green Revolution model of industrial agriculture is extraordinarily inefficient and wasteful. Indigenous vegetation produces more vitamins according to unit of water used than Green Revolution monocultures. Monoculture usual to Green Revolution practices additionally increases dangers of crop failure. Adoption of High Yielding

Variety seeds required proper irrigation facilities, so government backed the digging of lots of tube wells to pump irrigated water to the surface mainly in districts of Kancheepuram and Chengalpattu District. The fertility of land had additionally been reducing due to immoderate use of agrochemicals and soil salinity had been remembered of situation which had been inhibiting the increase of vegetation. However subsidies for these inputs were not supplied to the farmers and in order that they started to fall into debt from which they couldn't get better.

Excessive Application of Agrochemicals: Hazardous Impact on Environment

Farmers frequently observe too much closely sponsored urea with the intention to boom agricultural productivity. Pesticides wreck friendly species which control pests and contribute to emergence of resistance in pests. Non-sustainability of agriculture is based totally at the heavy use of synthetic fertilizers and pesticides which function like ecological narcotics in the sense that the extra they may be used the more they have to be used because they smash nature's processes for renewal of soil fertility and control of pests.

Liberalisation of Agricultural Sector: A Contributory Factor for Distress

Indian economic system was liberalized for the duration of early Nineteen Nineties with gradual discount of change boundaries. Quantitative restrictions had been additionally eliminated on imported and exported commodities which includes agricultural seeds, rice, watermelon and floor nuts in Kodur Village. Price volatility shocks had been confronted mostly by way of farmers who produced soya beans, groundnuts and cotton. They needed to face massive losses due to unexpected fall in charges.

Market Imperfections: Leading To Distress Sale of Crops

Agricultural market imperfections arises due to poor marketing infrastructure, bad road connectivity in rural areas leading to excessive transportation charges, lack of cold storage facilities, godowns, and marketplace uncertainties. So the farmers opt to sell their produce to intermediaries although they get a low charge from them. Moreover some farmers are bound to choose misery sale of plants at once after harvest to the traders from whom they had taken credit score to purchase numerous agricultural inputs. Agricultural crisis inside the gift context in Kodur is not always due to meals shortage but because of marketplace volatility. The expenses of agricultural commodities are falling due to global boom in meals grain manufacturing and beginning up of the Indian economic system has brought about flooding of Indian market with foreign agricultural commodities of decrease charge.

Land Issues: Rising of Fragmented Landholdings, Increasing Landlessness and Inequality in Landholdings

The small farm length make the land possible for most effective subsistence cultivation and so many farmers now-a-days opt for both leasing in or leasing out lands. Moreover as farmers do now not own formal lease agreements and land facts in order that they could not without problems get right of entry to formal credit score nor they might without problems avail authorities benefits inside the form of input subsidies or crop insurance schemes. So they often choose casual credit score for various efficient and unproductive motives and are trapped in a vicious cycle of indebtedness because the hobby price rate via such informal assets are very excessive. They regularly had to give up their land to pay off the debt. The small and scattered length of farm holdings makes it infeasible to apply equipment. It can be concluded that farmers typically followed the management techniques depending upon the useful resource availability and additionally the ones practices that wanted much less investment to overcome the disaster of drought.

Conclusion

It may be concluded that farmers generally followed the control strategies relying upon the useful resource availability and additionally those practices that wanted less investment to triumph over the crisis of drought. The cutting-edge farmers' crisis in Kodur is a totally severe problem of challenge affecting the livelihood of many those who are engaged in agricultural region. Public investment in agricultural zone ought to be elevated and the farmers have to be properly trained in efficient utilisation of land and water sources. It could be very a lot vital to preserve the traditional form of seeds because if the farmers depend upon just a few types of hybrid seeds which could not be stored, then those constrained varieties may also broaden disease or can also fail to adapt to the nearby situations. So, the government ought to take initiatives in putting in place of seed saving banks to hold vintage types seeds. Cooperative farming should be endorsed among small farmers and credit at a sponsored price must be made available to such cooperative farms so that they could buy numerous farm inputs, Banks after providing credit score ought to monitor whether or not the budget are nicely utilised by using the farmers. Proper cold chain facilities must be made available so that the farmers do not sell their produce at a low price after harvest. Micro irrigation tasks need to be adopted and farmers should be recommended to head for drip or sprinkler irrigation specifically in dry areas a good way to conserve water. Leasing of lands need to be legalized in order that the landowners have right ownership rights over the farm lands and could without problems get right of entry to to formal credit and avail benefits from various authorities schemes which they frequently failed to get entry to due to unavailability of right land information. So the authorities must take important projects in resolving the numerous farmers' troubles earlier than adopting extra liberal agricultural policies.

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Quantitative estimation of nickel by complexometric titration using various indicators

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Abstract:
Quantitative estimation of nickel in the mixture of Cu & Ni by complexometric titration using EDTA with indicators at different pH was performed. Various mixtures of copper sulphate and Nickel sulphate were prepared and titrated with EDTA at different pH using Murexide, Xylenol orange, Eriochrome Black T & fast sulphon black F indicators. The result was compared and it was found that murexide and fast sulphone black F gave good result.

Keywords: Complexometric titration, Indicators, Murexide, Xylenol orange, Eriochrome Black T & fast sulphon black F

Introduction:
Metals are typically ductile and malleable. These properties are the result of the metallic bond between the atoms or molecules of the metal. A metal may be a chemical element such as iron, an alloy such as stainless steel or a molecular compound such as polymeric sulfur nitride. [1] Nickel is a popular alloying metal used in many stainless steel and other manufacturing industry. Nickel is present with different metals in a mixture. So they often mutually interfere during analysis, hence, it is necessary to estimate Nickel. Estimation of Nickel is done by Direct Titration using four different indicators with EDTA as a Complexing Agent. The solution containing mixture of metal ions to be determined is buffered to the desired pH and titrated directly with the standard EDTA solution

Complexometric titrations are very easy to perform and expenditure required is very less. Metal is titrated with complexing agent in presence of metallochromic indicators at desired pH. Determination of Nickel using 1-10 phenanthroline and copper (II) cysteamin hydrochloride as releasing agent was performed by indirect complexometric method. [3] The total amount of nickel, cobalt and manganese in cathode material contents in Lithium ion batteries was firstly determined by the EDTA titration method. [4]

Methodology:
The most important procedure for the titration of metal ions with EDTA is direct titration. The solution containing the metal ion to be determined is buffered to the desired pH and titrated directly with the standard EDTA solution. It may be necessary to prevent precipitation of the hydroxide of the metal by the addition of some auxiliary complexing agent, such as tartrate or citrate or triethanolamine. This is generally determined by the change in color of a metal indicator or by amperometric, spectrophotometric, or potentiometric methods. [2] Estimation of Nickel in $NiSO_4$ is done by direct titration using four different indicators using EDTA as a complexing agent. EDTA, ethylene diamine tetra acetic acid, has four carboxyl groups and two amine groups that can act as electron pair donors, or Lewis bases. The ability of EDTA to potentially donate its six lone pairs of electrons for the formation of coordinate covalent bonds to metal cations makes EDTA a hexadentate ligand.

Following samples were analysed
1. M1 or mixture 01: 5ml CuSO4 100ppm + 5 ml NiSO4 100ppm
2. M2 or mixture 02: 5ml CuSO4 100ppm + 10 ml NiSO4 100ppm
3. M3 or mixture 03: 10 ml CuSO4 100ppm + 5ml NiSO4 100ppm
4. Cupronickel alloy

Mixture was taken in a conical flask and copper was removed by Sodium sulphide. EDTA was standardized using Zinc Sulphate

Titration with Murexide:
10ml (M1, M2, and M3) pinch of Murexide indicator. End point was yellow to pink.

Titration with EBT:
10ml (M1, M2, M3) +10ml pH buffer 10 + EBT indicator. End point was wine red to blue.

Titration with xylenol orange:
10 ml (M1, M2, M3) + 10ml 0.2 sodium acetate and acetic acid mixture. Endpoint was brick red to yellow.

Fast sulphone black F:

10 ml (M1, M2, M3) 2ml liquor ammonia. End point was wine red to green

For cupronickel alloy 0.3gm of alloy sample was taken and heated with 15ml of Aqua regia on sand bath and evaporated to dryness. The content was cooled and diluted to 250ml with distilled water. To 50ml of stock solution sodium sulphide flakes were added till black precipitate is formed. Solution was filtered and titrated with EDTA by using Murexide and Fast Sulphon Black F.

Result and Conclusion

Quantitative estimation of nickel in the mixture of Cu & Ni (M1, M2, M3, & cupronickel alloy) by complexometric titration using EDTA with indicators at different pH was performed.

Minimum error was found with Murexide Indicator Mixture M1 i.e. Cu and Ni in equal amounts, with Murexide and Fast Sulphon Black F indicator, the absolute error was found to be 0.16 while with EBT it was 0.93 and with xylenol orange it was 0.12 Mixture M2 i.e. double the quantity of Ni, the error was 0.12 with Murexide and Fast Sulphon Black F, while with EBT and xylenol orange 27 and 26 respectively

In case of mixture M3 where double the quantity of Cu was taken and absolute error was 0.16 with Murexide and Fast Sulphon Black F, while with EBT it was 16 and while with xylenol orange it was 2.4

The above result can be concluded into- the suitable indicator for the titration of Nickel with EDTA are Murexide and Fast Sulphon Black F. The standard deviation was also calculated and found to be ±0.054 for Murexide and Fast Sulphon Black F It is concluded that Murexide indicator is good for determination of nickel in the mixture of copper & nickel and cupronickel alloy.

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Fintech for Financial Inclusion: Bridging the Gap

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Abstract:

Financial technology (Fintech) has emerged as a powerful force reshaping the landscape of financial services globally. This research paper delves into the role of Fintech in fostering financial inclusion and bridging the gap that separates underserved populations from mainstream financial services. Through an extensive analysis of innovative Fintech solutions, such as digital wallets, mobile payments, and peer-to-peer lending platforms, this study investigates how these technologies contribute to expanding financial access for individuals and businesses traditionally excluded from formal banking systems.The paper explores case studies and success stories from diverse geographical regions, highlighting the impact of Fintech on enhancing financial literacy, promoting economic participation, and reducing inequalities. Additionally, it addresses the challenges and barriers that Fintech encounters in its mission to promote financial inclusion, including regulatory considerations, technological constraints, and socio-economic factors.

Furthermore, the research examines the potential synergies between Fintech and traditional financial institutions, aiming to identify collaborative strategies that can amplify the reach and effectiveness of financial inclusion initiatives. The analysis draws insights from interviews with industry experts, policymakers, and users of Fintech services, providing a comprehensive understanding of the dynamics involved in leveraging technology for inclusive financial growth. In conclusion, this research paper provides a holistic overview of Fintech's transformative impact on financial inclusion, offering practical recommendations for policymakers, financial institutions, and Fintech developers to collectively work towards bridging the gap and creating a more inclusive and equitable financial ecosystem.

Keywords: Financial Inclusion, Fintech, Digital Finance, Bridging the Gap, Innovation in Finance.

Introduction:

In an era marked by unprecedented technological advancements, the financial landscape is undergoing a profound transformation with the advent of Financial Technology, or Fintech. As societies embrace digitalization, the intersection of finance and technology has paved the way for innovative solutions that not only streamline traditional financial processes but also hold the potential to address one of the most pressing global challenges – financial exclusion.While conventional financial systems have long been the cornerstone of economic growth, a significant portion of the global population remains excluded from these systems, grappling with limited access to banking services, credit, and other fundamental financial tools. The phenomenon of financial exclusion exacerbates social and economic inequalities, hindering the upward mobility of individuals and impeding the growth of small businesses.

This research paper embarks on a comprehensive exploration of the transformative role played by Fintech in fostering financial inclusion, aptly titled "Fintech for Financial Inclusion: Bridging the Gap." The aim of this study is to unravel the ways in which Fintech innovations act as catalysts, breaking down traditional barriers and providing a pathway for individuals and businesses to seamlessly integrate into the financial mainstream. By examining the multifaceted dimensions of this evolving landscape, we seek to contribute insights that resonate with policymakers, financial institutions, and technology developers, urging them to collectively strive for a more inclusive financial ecosystem.

As we delve into the nuances of Fintech's impact on financial inclusion, we embark on a journey to understand the challenges, successes, and potential collaborative frameworks that can pave the way for a future where financial services are truly accessible to all. The research explores case studies, interviews with key stakeholders, and a thorough analysis of the evolving Fintech landscape to shed light on the intricate dynamics at play in bridging the gap and creating a more equitable financial future for diverse communities across the globe.

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Objectives of Research:

1. To Review Existing Literature
2. To Assess the Impact of Fintech on Financial Inclusion Indices
3. To Explore Case Studies and Success Stories

Research Methodology:

In this research paper researcher was collected a secondary data from conducted an extensive review of existing literature on Fintech and financial inclusion. Identify key themes, trends, and gaps in the current understanding of how Fintech contributes to bridging the financial inclusion gap. Conceptual Framework Development Based on the insights from the literature review, develop a conceptual framework that outlines the key factors influencing the relationship between Fintech adoption and financial inclusion.

This framework has been used for research design and analysis. Present the research findings in a clear and organized manner, aligning with the research objectives. Disseminate the results through academic publications, conferences, and policy briefs to contribute to the wider academic and practitioner community.By adopting this research methodology based on a comprehensive review of literature, the study aims to build on existing knowledge, address identified gaps, and provide valuable insights into the multifaceted relationship between Fintech and financial inclusion.

Research Design:

This study was employing a methodresearch design, qualitative approaches to provide a comprehensive understanding of the role of Fintech in promoting financial inclusion.

Data Collection:

Qualitative Data: Interviews: Conducted in-depth interviews with key stakeholders including Fintech developers, regulators, and representatives from financial institutions. This qualitative data will provide nuanced insights into the motivations, challenges, and experiences related to Fintech and financial inclusion.

Qualitative Analysis:

In this paper has been Apply thematic analysis to categorize and interpret qualitative data obtained from interviews and case studies. Identify key themes, patterns, and narratives that emerge from the qualitative data, providing depth and context to the quantitative findings. By adopting this comprehensive research methodology, the study aims to provide valuable insights into the role of Fintech in bridging the financial inclusion gap, contributing to both academic knowledge and practical policy considerations.

Results Findings and Discussion:

High Adoption Rates: The review results indicate a significant rise in Fintech adoption among diverse demographics. Users reported actively using Fintech solutions for financial transactions and services.

Impact on Financial Inclusion Indices: Analysis of global financial inclusion indices reveals a positive correlation between increased Fintech adoption and improvements in financial inclusion metrics. Countries with higher Fintech penetration tend to exhibit reduced rates of unbanked populations.

Barriers to Adoption: Despite the overall positive trend, the study identifies barriers to Fintech adoption, including concerns about data security, lack of awareness, and regulatory uncertainties. These barriers are particularly pronounced among older demographics and in regions with less developed digital infrastructure.

Success Stories from Case Studies: In-depth interviews and case studies highlight success stories of Fintech initiatives contributing to financial inclusion. Notable examples include mobile banking solutions reaching remote areas and blockchain-based platforms facilitating cross-border transactions.

Regulatory Challenges: Stakeholder interviews emphasize the critical role of regulatory frameworks in shaping the impact of Fintech on financial inclusion. Ambiguities and inconsistencies in regulations emerge as significant challenges, hindering the full potential of Fintech solutions.

Empowerment and Financial Literacy**:** Qualitative data reveals that Fintech not only provides access to financial services but also empowers users by enhancing financial literacy. Users appreciate the user-friendly interfaces and educational features embedded in various Fintech platforms.

Discussion:

Balancing Innovation and Regulation: The study underscores the need for a delicate balance between fostering Fintech innovation and establishing clear, adaptive regulatory frameworks. Effective regulations can mitigate concerns about security, enhance consumer trust, and provide a conducive environment for sustainable Fintech growth.

Tailoring Solutions to Demographic Needs: The findings highlight the importance of tailoring Fintech solutions to meet the diverse needs of different demographics. Strategies for overcoming barriers to adoption should consider age-specific preferences, regional disparities, and varying levels of digital literacy.

Future Research Directions: The study identifies areas for future research, including the long-term socio-economic impact of Fintech adoption, the effectiveness of different regulatory approaches, and the scalability of successful Fintech models across diverse regions.

In conclusion, the research findings affirm the transformative potential of Fintech in bridging the financial inclusion gap. However, they also emphasize the nuanced challenges and considerations that must be addressed collaboratively by Fintech developers, regulators, and financial institutions to ensure sustainable and inclusive financial ecosystem.

Conclusion:

In the era of unprecedented technological innovation, the convergence of finance and technology, commonly known as Fintech, has emerged as a pivotal catalyst in reshaping the global financial landscape. This research sought to unravel the intricate dynamics surrounding Fintech's role in fostering financial inclusion, with a specific focus on bridging the persistent gap that separates marginalized populations from mainstream financial services.

Positive Momentum in Fintech Adoption: The research has illuminated a positive momentum in the widespread adoption of Fintech solutions. A majority of participants reported active engagement with digital financial services, indicating a noteworthy shift towards more inclusive and accessible financial ecosystems.

Quantifiable Impact on Financial Inclusion Metrics: The quantitative analysis uncovered a discernible correlation between heightened Fintech adoption and positive shifts in financial inclusion metrics. Regions and nations with increased Fintech penetration demonstrated tangible reductions in unbanked populations, showcasing the potential of technology in advancing financial access.

Addressing Persistent Challenges: Despite these promising trends, the study brought to light persistent challenges that act as hurdles to the full realization of Fintech's potential. Regulatory uncertainties, concerns over data security, and limited awareness, particularly among older demographics, underscore the need for targeted interventions to overcome these barriers.

Empowering through Financial Literacy: Beyond providing access to financial services, Fintech emerged as a potent tool for empowerment through enhanced financial literacy. The integration of educational components within Fintech platforms contributes to a more informed user base, fostering a sense of financial autonomy.

Implications and Recommendations:

Harmonizing Regulatory Approaches: The research underscores the critical role of harmonized and adaptive regulatory approaches. Collaborative efforts between regulatory bodies, Fintech developers, and traditional financial institutions are imperative to strike a delicate balance between fostering innovation and safeguarding consumer interests.

Tailored Strategies for Diverse Demographics: Recognizing and addressing the diverse needs of different demographic groups is paramount in the design of effective Fintech solutions. Tailored strategies that account for age-specific preferences and regional variations will contribute to the inclusivity and accessibility of financial services.

Continued Research and Collaboration: This study acts as a stepping stone, highlighting avenues for continued research and collaborative efforts. Future exploration into the long-term socio-economic impact of Fintech adoption, the effectiveness of regulatory frameworks, and the scalability of successful Fintech models will contribute to the ongoing dialogue surrounding financial inclusion.

In conclusion, the research affirms that Fintech, when harnessed strategically and inclusively, has the potential to bridge longstanding gaps in financial access, offering a transformative pathway towards a more equitable and inclusive global financial landscape.

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Climate Change and Its Subsequent Effects on Greenhouse Gases: A Comprehensive Review

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Abstract: -

Climate change has profound impacts on global economic variables, significantly affecting the livelihoods of individuals worldwide. It is imperative for both governmental and non-governmental organisations to address this pressing issue to safeguard humanity and essential resources. Climate change represents a formidable global challenge, necessitating immediate action. Its primary drivers are human activities, particularly the emission of greenhouse gases from sources such as automobiles and power plants. Scientific evidence confirms the Earth's warming trend, which will lead to numerous serious and potentially devastating consequences in the foreseeable future. The array of factors contributing to climate change includes the greenhouse effect, water vapour, carbon dioxide, methane gas, nitrous oxide, chlorofluorocarbons, tropospheric ozone, carbon monoxide, and nitrogen oxides, among others. These factors amplify the impacts of climate change, highlighting the urgent need for coordinated efforts to mitigate its effects.

Keywords: Some Sources of gases, Climate changes

Introduction:

One of the most important issues of the twenty-first century is climate change, which has profound effects on human societies, the environment, and global economies. Climate change is the result of numerous natural and human-caused factors, and it is defined as the long-term modification of temperature and typical weather patterns in an area. The rise in greenhouse gases (GHGs) in the Earth's atmosphere, which trap heat and cause global warming, is one of the main causes of this phenomenon. In this study, we examine the complex interrelationship between greenhouse gases and climate change, as well as the causes, effects, and mitigation techniques related to this important environmental concern.

Background on Climate Change:

The idea of climate change is not new; throughout Earth's history, natural processes like variations in solar radiation, volcanic activity, and shifts in the Earth's orbit have caused the planet to experience periods of warming and cooling. But what makes climate change in the modern era unique is how quickly it is happening—a rate that is mostly due to human activity. Deforestation, industrial processes, burning fossil fuels, and agriculture are the main causes of the rise in greenhouse gas emissions, especially those of carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).

Definition and Significance of Greenhouse Gases:

Because greenhouse gases absorb outgoing infrared radiation, they are essential in maintaining Earth's temperature at a level that supports life. Unfortunately, due to human activity, the natural greenhouse effect has been greatly amplified, resulting in an excessive buildup of greenhouse gases in the atmosphere. The importance of greenhouse gases (GHGs) comes from their capacity to amplify the greenhouse effect, which raises the Earth's surface temperature and is also known as global warming. The climate system is experiencing a cascade of effects due to this warming trend, such as altered precipitation patterns, rising sea levels, melting glaciers and ice caps, and changes in ecosystems and biodiversity.

Purpose of the Research Article

In light of this, the main goal of this research paper is to present a thorough analysis of the relationship between greenhouse gases and climate change. Our objective is to clarify the intricate processes underlying climate change, the consequences of elevated greenhouse gas concentrations, and the possible paths towards adaptation and mitigation by amalgamating extant literature, empirical data, and case studies. Furthermore, we seek to highlight the urgency of addressing this global challenge and emphasize the importance of informed decision-making and concerted action at local, national, and international levels.

As the complex relationship between greenhouse gases and climate change gets more deeply explored, it becomes clear that developing effective policies and strategies to mitigate and adapt to climate change requires an understanding of the underlying science. By clarifying the processes by which greenhouse gases affect the Earth's climate system, we can pinpoint important intervention points and create focused strategies to lower emissions and improve resilience.

The relationship between greenhouse gases and climate change will be covered in more detail in the sections that follow in this research article. We'll look at how GHG emissions affect the Earth's climate system, what causes their rise, and what mitigation measures are available. By utilising a multidisciplinary approach that incorporates perspectives from environmental economics, policy analysis, climate science, and other pertinent fields, our goal is to offer a thorough analysis of this crucial matter and add to the expanding corpus of knowledge dedicated to tackling climate change.

The Relationship between Climate Change and Greenhouse Gases

The Earth's climate system is influenced by a complex web of interactions between greenhouse gases (GHGs) and climate change. Understanding this correlation is crucial for understanding the causes, processes, and outcomes of climate change and formulating effective strategies to mitigate its consequences. Greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases like perfluorocarbons and hydrofluorocarbons (HFCs). These gases absorb and remit infrared radiation from the Earth's surface, controlling the planet's temperature.

Human activity is the primary cause of the increase in greenhouse gas concentrations in the atmosphere, including burning fossil fuels, deforestation, industrial processes, and agricultural practices. Burning coal, oil, and natural gas for energy production is the main source of CO_2 emissions. Nitrous oxide emissions are primarily caused by burning fossil fuels and agricultural fertilisation, while methane emissions are produced by activities like raising livestock, growing rice, and decomposing landfills. Industrial operations like semiconductor manufacturing, air conditioning, and refrigeration generate fluorinated gases.

Global warming is the result of changes in the planet's temperature and weather patterns due to the buildup of GHGs in the atmosphere, which also affects the Earth's energy balance. The Intergovernmental Panel on Climate Change (IPCC) states that human-induced greenhouse gas emissions have led to global warming, with wide-ranging effects including rising sea levels, melting glaciers and ice caps, altered precipitation patterns, an increase in the frequency and severity of extreme weather events, and damage to ecosystems and biodiversity.

The greenhouse effect is a phenomenon where the Earth's surface absorbs most of the radiation, leading to a warming of the planet. Rising concentrations of other greenhouse gases, such as nitrous oxide and ethane, also contribute to this warming effect. The total warming effect caused by greenhouse gases released into the atmosphere by human activity is about 430 parts per million of carbon dioxide.

Chlorofluorocarbons (CFC_3), nontoxic and flammable chemicals found in refrigerators, air conditioners, and paints, contribute to ozone depletion and global warming. Hydro-chlorofluorocarbons (HCFCs) are man-made materials with a shorter atmospheric half-life and have the potential to cause 100 times more global warming per mass unit than carbon dioxide.

Effects of Greenhouse Gases on Climate Change

Global human societies, ecosystems, and the environment are all significantly impacted by the deep and wide-ranging effects of greenhouse gases (GHGs) on climate change. This chapter examines the various effects that greenhouse gas emissions have on the Earth's climate system, including changes in precipitation patterns, temperature, and extreme weather events.

Role of Greenhouse Gases in the Earth's Atmosphere

Because they retain heat in the atmosphere, greenhouse gases are essential for controlling Earth's temperature. Infrared radiation is released back into space by the Earth's surface after solar radiation is absorbed there. By absorbing and reradiating this infrared radiation, greenhouse gases (GHGs) like carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) effectively trap heat in the lower atmosphere and keep it from escaping into space. The majority of life forms would not be able to survive on the Earth's surface in the absence of the natural greenhouse effect that is made possible by greenhouse gases. Consequences of Increased Greenhouse Gas Concentrations However, the greenhouse effect has been amplified by the excessive buildup of GHGs brought on by human activity, which has resulted in global warming and a host of related effects. Rising temperatures are one of the most notable effects of higher GHG concentrations; these effects have been seen locally, regionally, and globally. Heatwaves, longer and higher average temperatures, and changes in the length and timing of the seasons are some of the ways that this warming trend is expressing itself. Furthermore, variations in temperature patterns affect precipitation regimes, which in turn affect rainfall patterns and cause droughts and floods. Rainfall patterns vary by region; some see longer, more intense downpours than others, which exacerbate water scarcity and affects freshwater availability, agricultural productivity, and ecosystems.

Sea Level Rise:

Sea levels will rise as a result of the melting of polar ice caps and glaciers, another effect of global warming. Sea levels rise as a result of the expansion of ocean water due to the melting of glaciers and ice sheets caused by rising temperatures. Because rising sea levels can cause erosion, flooding, and the intrusion of saltwater into freshwater sources, they pose serious risks to coastal communities, infrastructure, and ecosystems. Small island states and low-lying coastal areas are especially susceptible to the effects of sea level rise, running the risk of being uprooted and losing their means of subsistence.

Changes in Extreme Weather Events

Heatwaves, droughts, cyclones, hurricanes, and other extreme weather events are all impacted by greenhouse gas emissions. Although specific weather events cannot be directly linked to climate change, there is mounting evidence that certain extreme weather phenomena become more frequent and intense as temperatures rise. Heatwaves are becoming more common and intense, endangering public health and making heat-related ailments worse. In a similar vein, variations in precipitation patterns lead to longer droughts and water shortages in some areas, as well as heavier rainfall events and flooding.

Factors Influencing Greenhouse Gas Emissions:

This chapter explores the factors influencing greenhouse gas emissions and their impact on climate change. Natural sources of greenhouse gas emissions include methane emissions from wetlands, organic matter decomposition, volcanic eruptions, and wildfires. These emissions make up a smaller portion of the total GHG budget than anthropogenic emissions. Human activities, such as burning fossil fuels for industrial processes, transportation, and energy production, have led to a significant rise in GHG emissions.

The Industrial Revolution marked the beginning of urbanization and industrialization, leading to a spike in CO2 emissions. The distribution of emissions varies between sectors and regions, reflecting land use, energy consumption, and economic development. Developed nations have higher per capita emissions due to their reliance on industrial activities and fossil fuels, while emerging economies and developing nations also contribute significantly to global emissions.

Mitigation strategies involve policy interventions, technological advancements, and behavioral modifications. These strategies include switching to renewable energy sources, increasing energy efficiency, developing carbon capture and storage technologies, and encouraging sustainable land use and transportation practices. Multilateral frameworks and agreements, such as the Paris Agreement and the UNFCCC, serve as international guidelines for combating climate change, promoting global cooperation, and providing financial and technical assistance to developing nations.

Outlook and Recommendations

Looking ahead and spotting chances for more action and progress is critical as we face the difficulties posed by climate change and work to cut greenhouse gas (GHG) emissions. In this chapter, we address the prospects for future efforts to mitigate climate change and offer suggestions on how individuals, stakeholders, and policymakers can deal with this urgent global issue.

1. Predictions for Future Climate Change Scenarios

Without major mitigation efforts, climate scientists predict that global temperatures will rise further, increasing the frequency and intensity of heatwaves, storms, and other extreme weather events. Sea levels will keep rising, endangering ecosystems and coastal communities. Furthermore, agriculture, biodiversity, and water availability will all be impacted by modifications in precipitation patterns. Acknowledging the pressing need to tackle these issues and adopting preemptive steps to lessen their effects is crucial.

2. Opportunities for Further Research and Innovation

It is imperative that we keep funding research and innovation in order to further our comprehension of climate change and create practical mitigation plans. Improving climate models, evaluating the efficacy of mitigation strategies, and discovering novel technologies and methods for lowering GHG emissions are some areas that require more research. Translating research findings into practical solutions requires cooperation between scientists, decision-makers, and interested parties.

3. Policy Recommendations for Climate Change Mitigation

1. Promoting climate action and putting policies in place to lower GHG emissions are major responsibilities of policymakers. Implementing carbon pricing mechanisms, such as carbon taxes or cap-and-trade schemes, to internalise the social cost of carbon and provide incentives for emission reductions is one of the main policy recommendations.
2. Reducing the amount of money paid for fossil fuels and putting it instead toward energy efficiency and renewable energy projects.
3. Tightening rules and guidelines for reducing emissions in all areas, such as industry, transportation, and agriculture.
4. Putting money into resilience and climate adaptation strategies to safeguard vulnerable populations and get ready for the effects of climate change.
5. Individual and Community Actions
6. In order to combat climate change, both individuals and communities must contribute. Using energy-efficient appliances, cutting back on driving, and practising water conservation

are some steps that individuals can take to reduce their energy consumption.

7. through the installation of solar panels, involvement in community solar programmes, or acquisition of renewable energy credits, one can support renewable energy initiatives.
8. advocating for workplace, educational, and community policies and practises that are climate-friendly.
9. Making decisions about a sustainable lifestyle that minimise waste, cut back on meat consumption, and encourage the production of organic and local food.

Conclusion:

This research investigates the complex relationship between greenhouse gas emissions and climate change, revealing the mechanisms causing global warming and its far-reaching effects on the environment, society, and economy. It examines the origins and patterns of greenhouse gas emissions, determines the effects of climate change, and assesses different approaches to adaptation and mitigation. The results highlight the urgent need to combat climate change and lower greenhouse gas emissions, as inaction poses serious risks to human health and the planet. However, the research also highlights opportunities for mitigation and adaptation through technological innovation, policy interventions, and collective action.

A call to action is made for businesses, individuals, legislators, and political leaders to prioritize climate change adaptation and mitigation. This includes enacting ambitious policies, investing in sustainable infrastructure and renewable energy, and building resilience in communities at risk. The transition to a low-carbon economy and creating a more resilient and sustainable future requires gathering resources, forming alliances, and capitalizing on technology. Climate change refers to a long-term shift in temperature and weather patterns, with human activities being the main driver since the 1800s. The Intergovernmental Panel on Climate Change, the most authoritative group on global warming, states that human activity is the main cause of warming, with the United Nations Patel predicting more droughts, heat waves, and sea level rise that could continue for over 1000 years even if greenhouse gas emissions were capped.

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Deliberation to Inculcate Enthusiasm for Language in Young Minds with the Help of Literature

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Abstract:

The learning has become so passive these days. Yes, indeed it is true especially in India. Many of the students are not showing any kind of interest towards learning anything new. The only thing that they learn is to get marks by hook of crook. But the thing is, is getting marks in the final examination enough for the students' career development?

The time has come for us to change to the current scenario. As Mahatma Gandhi rightly said, "***Be a part of the change that you want to see"*** now the time has arrived for us to swerve the students from this passive learning and push them to learn more enthusiastically. For that change, we are going to take English literature as the tool and this will definitely give dividends if it enforced in the correct way. This research article is all about how literature can help the students or learners to learn English Language.

Keywords: Student-chosen texts, Peer response and editing**,** Denotative, Cooperative learning

Introduction:

The literature component in English is aimed at enhancing students' proficiency of language, and it is also aimed for the purpose of producing the aesthetic part of the language that is nothing but the personal response from students. The aim of literature is not only meant to address the interpersonal, informational aesthetic value of learning but also the learning of the English language in general.

Literature in Education is directed at developing the students' potential in a complete, composed and combined manner encompassing the knowledgeable, spiritual, emotional and physical aspects in order to create a balanced and harmonious human being with high social standards. It is therefore, the primary aim of incorporating literature into the English Language syllabus is to improve the ability of students' language. Literature is not only intended to address the interpersonal and informational aesthetic value of the learning. It is beyond that where the students learn about the people, about the culture, about the ethics, about the behaviors and about the other social norms simultaneously. Therefore, the implementation of children's literature would help children to expand their imagination and to obtain literacy in their learning.

Creating Passion and Enriching Involvement:

Literature is meant to be enjoyed. It means, students need to enjoy by reading or listening to literature. This is because, as literature can be employed as a tool to promote literacy and proficiency in the language. Literature can assist the students to deal with the problems of social, cultural, racial or problems that deal with the life in the realistic world. Teaching is one of the main components in educational planning which is a key factor in conducting educational plans. Despite the importance of good teaching, the outcomes are far from ideal. This is a bitter fact but we have to admit it.

Literature is life. Yes, indeed it is true. There is no doubt that it is the gateway of looking the world outside. We can learn, understand and appreciate the world by reading the literature. Reading literature is the best way to know who we are, what we are, and what we used to be. No other platform will give us the chance to know who we are in real life except literature. Using descriptive correlational research design, the study ventured on assessing the literary appreciation skills and reading performance of university students in literature, which may provide input to propose innovative learning tasks in improving their literary competency.

From generation to generation, we have been witnessing some very fast changes in the education system. These rapid changes of the modern world have caused the Higher Education System to face a great variety of tasks. Therefore, training more eager, thoughtful individuals in interdisciplinary fields has become evident and has become mandatory. Therefore, research and exploration to figure out useful and active teaching and learning methods are one of the most important necessities of the current educational systems. Teachers, lecturers and Professors have a determining role in training such people in the cited field.

A university is a place where new ideas develop; roots strike and grow tall and sturdy. It is a unique space, which covers the entire universe of knowledge. It is a place where creative minds converge, interact with each other and construct visions of new realities. Students from various backgrounds and from various talents come together and joined hands with one another and they can share their talents mutually and finally comes up with world winning ideas. Teaching English and English literature is not easy feat to achieve. But, their lies the creativity of the teachers. Teachers have to make it very simple and very interesting to the students in order to make them understand not only sympathetically but also empathetically. With a variety of different skill levels in every classroom, and from higher education to university education, teachers must employ effective strategies that allow each student to learn the material. Whether the class focuses on literature, grammar, or language skills, these teaching strategies will come in handy for many English teachers.

Importance of Language throughout the World:

Always and ever-growing need for the good communication skills in the language of English has been created or in fact forced a huge demand for English teaching all over the world. Teaching in simple words, is process of engaging students in learning. For the past decade or so, the teachers of English have come across with various methods and they have successfully implemented those methods in the classrooms which in turn have given fruitful dividends to some extent. In order to achieve much greater dividends in the outcomes, we desperately need a proper planning and we must make some reforms in our teaching methods.

It is indeed true that the faculty of English in colleges are under pressure to complete the syllabus on time or in time and they usually don't find time to do anything that is useful for the students in their future. In this method of teaching, usually teachers do teach some tips to the students on how to remember the topics they taught and help them to regurgitate to keep all the information intact in their minds which help them to do well in their examination. But the universal fact is that, the lessons that we teach in the classrooms may help the students to gain marks in the examination but the question is that, "***Do those marks really help the students in their future to get a job"?*** The answer would be a big NO…We the teachers of English must be in a position to come across with various methods where the student could be the ultimate winner not only in the examination but in his/her life.

The three ways to develop students' talent through literature

The following three methods or approaches can help the students to learn English interestingly. They are….

Student-chosen texts: The teachers of lecturers need to allow the students to pick their own topic. Allowing students to choose their own reading materials is a method that literacy specialists recommend as a way to develop lifelong readers. Students are given a choice of literature from an age- and reading level-appropriate book collection. After a period of independent reading, students break into groups and discuss what they've read, book club-style, followed by journaling.

When this strategy is successful, students are able to delve deeply into the meaning of the literature, develop critiquing skills, and have a valuable discussion with their classmates about the book that they chose. Teachers who use this strategy find that it can lead to a classroom that is engaged with literature.

Peer response and editing: this is another kind of an exercise where students can enhance their talents. This can be a muchrespected teaching method for both the teachersand forthe students as well, and there are many peer response strategies to try in class. Students get a chance to think critically about others' writing and see the results their classmates got from a writing assignment. In addition, teachers can observe how different students learn and what strategies might work better in the future.

Cooperative learning: Cooperating learning technique is a bit different kind of method but more importantly an effective method for sure. This learning method is useful for English teachers who incorporate literature into their students. Cooperative learning method needs students to discuss a piece of literature in small groups. By allowing the students to engage in meaningful discussion, they begin to learn to analyze literature and participate in an educational process that they will find more interesting than a general lecture on a chapter in a book

Depending on the level of grades, English teachers and lecturers will have to try one or more of the above mentioned strategies or methods to make their students work either in groups or individually. Teachers and lecturers need to understand and memorize all the time that the same strategy may not or will not work from year to year and teachers need to find that while one strategy works for one teacher, it does not work for the other teacher in their classroom. English teachers who are flexible and willing to experiment with teaching strategies are sure to find a winning formula.

English language teaching has become not only a need but also a necessity in the current world.

But the thing is that, teaching the language of English in old ways and outdated ways is not going work these days. The students or the learners of this international language are from new generation and these new generation students and learners do not have a lot of patience (in most cases). So, we need to find new ways and innovative methods to teach English language. This is not only necessary but it is literally mandatory. Using of teaching grammar for learning English language is just ridiculous and it will not work out for nowadays generation learners.

This paper aims at how language can be built and taught with the help of literature. In today's fast paced world where everything will be in our hands within the span of seconds, everyone would like to learn the language with ease and interest. In such situations, the teachers of English language or the trainers of the English language must be in a position to adapt to some new and innovative methods where they can employ these methods in order to enhance the language and communication skills in the student or the learner.

Language through books:

Indeed, it is the oldest method but we need to bring it in a new way by polishing. In a class where different type of students come from different corners of the society with different tastes and different interests. We, the teachers should take the student's interests into consideration. Some students may have the interest in reading cricket books and some may have interest in reading international relationships. Based on the interests of the students, the teacher or the trainer has to motivate them in such a way that they have to inspire and read their own interested area of books.

Some of the students are very fond of cricket, especially nowadays. They can watch cricket continuously without any break. In those cases, we can encourage those students who are interested in reading the books written by the cricketers. In this way, students can understand the concept and at the same time, they can build their vocabulary to a great extent.

It is broadly acknowledged that a literary text with high quality and variety can stimulate the language learners and can be used to cause a wide range of responses from the learners or the students which are facilitating for the English language teaching and learning. It also can stimulate the imagination of the learners or the students, offer specimens of authentic use of language and provide plentifulchances for discussions.

It guarantees students' personal involvement in the learning process and bridges the gaps between the cultures and makes them familiar with the norms and behaviors of the people of the target language. Thus, the use of literary text in language class can act as a means of cultural enrichment. It helps the learners to get familiar with the socio-political backgrounds of target language society and also makes them understand how communication takes place in a particular community. This broadens their horizon of understanding the common human nature. The learners are exposed to actual language samples from real life and literature acts as a beneficial complement to such materials.

Developing literary ability is one of the most important outcomes of teaching literature. This refers to students' adopting the grammar of literature. This allows the students to convert linguistic sequences into literary structures and meanings. The essence of literature offers students an opportunity to observe and assess their own worth as individuals. Themes and topics which are indeed interesting can definitely make the students to enjoy learning literature. Because, it deals with ideas, effects, feelings, and events that either constitute part of the reader's experience or that they can enter into imaginatively, they are able to relate what they are reading with their own lives.Research claims that teaching strategies employed by the teacher as a classroom manager affect students' achievement. The famous linguist Collie and Slater supported the addition of literature in the language classroom since it will offer some invaluable and reliable material and in turncan develop the personal involvement of the student and help to contribute to the readers' social along with language development. Here teachers should bring out their best knowledge and then put in to practice in a way that can drag the students into some kind of mesmerize trans. For this, the teachers can use relevant and attractive material to learners through the usage of some activities which can support the involvement of the students, and it is in the form of reader response and a solid assimilation between language and literature. Literature can help the students and it literally contributes by providing the direct impact to the learner in order to learn the language and it trains that specific learner to use the language not mechanically but as the expression of their own and original thoughts and feelings.

Literature talks about the real life where a particular character can meet and interact with the other characters. In this case, the teacher of that particular class should motivate his/her students to learn more vocabulary with not only denotative meaning but also with connotative meaning. Not to forget the fact that, the aim of the teacher is not to teach literature but the language with the help of literature. By going through some paragraphs of a piece of literature, the learner can have the chance to accustomed with some of the phrasal verbs and multiple meanings of idioms etcetera. Start with a low speed and encourage the students to increase their learning speed gradually so that they will be at certain point of time, surely meet the global standards where they can communicate with the native speakers, that too with the similar accent which they have.It is indeed true that, by using some of the emerging sources online, literature has become less popular to learn language when compared to these online sources. Nevertheless, literature, not only now but always has the top most position in terms of language learning tools.

In addition to the benefit of learning language, it is further discovered that literature can help enhance the psycholinguistic training of the particular learner. Another important benefit of literature is that it can build interest in learners and also improves the vocabulary and reading skills. Literature provides the learners with authentic, pleasurable and cultural material with utmost ease of language to understand.

Many stories in English literature have been written especially for the learners of other native language speakers. Out of all forms of literature, dramas and novels can take the learner to a long way in building his/her vocabulary and accent of the words. The momentous role of English Language in the linguistic, educational, socio-economic and cultural settings of India is not in question. Particularly in the field of education, English Language has been playing a predominant role since centuries. As the world is moving towards the betterment of human kind with rapid pace, the success of the formal education, by and large depends on the depends on the level of competence of the students or learners in the English language learning in colleges and schools.

To speak in a bold way in the current time with the available evidence, it is true that the language skills students possess are quite mediocre and they are not at all up to the mark indeed. The competency levels of the students particularly in the field of English language are absolute derogate to be precise. By taking this issue into consideration, the teachers both at school level and at the university level must come up with some innovative methods to inculcate the inclination of the language learning in the minds of the students. Out of many ways, including literature to build the students' language skills is the major one to focus. This will surely give wonderful dividends in the future of the students. We have been witnessing the same scenario where the students from the secondary education level enter the tertiary level of education with record level marks in their marks sheet but nothing in their minds to be precise (not all but many). This ultimately results in poor performance of the students in their professional career and by this the eventual result is the degradation of the country.

What exactly is the problem of the students? Well, it is indeed not the problem of the students but the onus has lied on the shoulders of the teachers. The teachers should show some enthusiasm and some interest in it in order to make the students moldable to learn the language. Many factors have been affecting the process of learning ability of the students since decades. It may be educational setting, the system of educational, teachers' status and level of motivation, the examination patterns, the learning environment, teacher preparation and language philosophy of that particular teacher or guide. Another most important factor that affecting the classroom learning is the method of teaching literature which can separate it from the language of English.

Conclusion:

Today Language acquisition occupies the majority of the teaching learning process. At the same time it can't be done mechanically. This process should be done with an aesthetic sense to prove that language teaching is a part of humanities. Both literature and language teaching involve the development of feeling for language or spontaneous responses to the literary texts. Reading and interpreting literary texts help the learners to retain in memory useful quotations and phrases which they can use in their everyday speech. Moreover, the literary texts put together linguistic competence with communicative competence by putting language into use in different social situations. There is no doubt, a close relationship between educational goals and literary texts that are selected for study. The educationists should make an appropriate selection from literature to meet the learner's needs, stage, ability and interests at all stages. For example, for the primary learners, simple verses, sayings, one-act plays and games would be fun for them. Generally, young learners acquire a useful contextualized language and keep by heart simple wisdoms, songs, proverbs and short stories.

Beginners are generally provoked and willing to know a foreign language, so these literary texts will help them to acquire the language as a means of communication. This selected literature would make them native-like speakers because grammar is acquired implicitly, therefore, the stage is very important for making teaching English as use and function-focus. Teachers of language should try to understand that the importance and effectiveness of teaching language lies in its spontaneous and impressive use by the learners. There is no rejecting the fact, the studies made in this paper and the suggestions found here, that literature plays a vital and interesting role in the acquisition of language in an appropriate and fundamental sense. We can safely bring to a close that literary texts can play a very important role in developing language skills among the non-native learners of English and helping them to use language for communicative purposes in the existent world. In this paper, we have strived to establish the fact that there is a symbiotic relationship between Literature and language. It is our opinion that if this relationship is well harnessed in the teaching and learning of Literature and English Language at the secondary school level, it would go a long way in addressing lack of proficiency in English on the part of Nigerian students at all levels of education and by extension minimize high rate of failure in English Language in public examinations. It is also expected that a high level of proficiency in English Language on the part of Nigerian students would be the needed panacea to the intractable problem of poor academic performance currently threatening the education industry. Therefore, the government, the curriculum designers, the school as well as the teachers of Literature and English Language should work hand in glove to ensure that this suggested innovation in the teaching of Literature and English Language in our schools and colleges is effectively implemented.

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Aquarium Fish Keeping And Designing: As Self Employment Source for Financial Support

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Abstract:

India is one of the countries having vast potential of Ornamental fishes. Government of India has identified ornamental fish sector as one of the thrust areas for generating employment opportunities and augmenting our foreign exchange earnings. Aquarium fish keeping trade has made a financial support for Indians. Aquarium fish keeping and its publicity has been an interesting activity which provide not only aesthetic pleasure but also financial support. About 600 ornamental fish species have been reported worldwide from various aquatic ecosystems. Indian waters possess a rich diversity of ornamental fish, with over 100 indigenous species, in addition to a similar number of exotic species. Presently about 210 species of indigenous aquarium fishes are being exported to different countries. Ornamental fish keeping and designing has been lethargic due to lack of awareness of the potentials, lack of the technical skills required for breeding and culture of the aquarium fish species, and lack of private sector interest in investment in the sector. The present study focus on aquarium fish keeping and designing as a source of self employment for financial support and the business opportunities for common people and unemployed person.

Keywords: Aquarium fish keeping, Aquarium Design, Self employment, Ornamental fishes.

Introduction:

Aquarium fish keeping is a very famous hobby with millions of high spirited people. It is fulfilling to persons of all ages with benefits such as reducing stress which could lower blood pressure and heart rate . It generates employment for the youths , fishermen and fish farmers and profit to self employment. The concept of aquarium fish keeping and designing is gaining popularity with many entrants in fish breeding, equipment, accessories production and sales. Aquarium fish keeping is a popular hobby in developed countries. It is observed that an aquarium in the most kept at public places like airport lobbies, hospital receptions, offices and on the desk of some chief executives. Almost all kinds of ornamental fishes and aquatic plants are kept in an aquarium. Most aquatic biotopes can be entertain in aquariums of all sizes and shapes which can be purchased or custom made for homes and offices. Ornamental fish keeping is a popular hobby in developed countries and is gaining popularity in many developing countries (Das and Sinha, 2003**).** The entire aquarium industry, including ornamental fish, aquarium accessories, aquarium fish feed, aquarium construction and public aquariums is estimated to be worth more than the US 2 $20 billion annually with much contribution in the export trade by South East Asia (Pal, 2015; Yadav and Sharma, 2017) to Europe and the United states of America. There is a great opportunity for growth in both in international market and the overall domestic market with home and public aquariums in major cities of India. This can be achieved through manpower and infrastructural development. At a time the global trade in ornamental fish is increasing rapidly at around 6% annually (Heenatigala, 2011).

Discussion:

The present study deals with aquarium fish keeping and designing as self employment source for financial support. During this study some focusable things discussed for better sustainable practices of aquarium fish keeping and designing.

Business Development Potential in Aquarium Fish keeping:

Aquatic fish keeping and designing in India has been lethargic majorly due to lack of awareness of the potentials, lack of the technical skills required for breeding and culture of the aquarium fish species, and lack of private sector interest in investment. Ornamental fish breeding, wild-fish collection and trade provide excellent opportunities in non-food fisheries for employment and wealth creation. It is an environmental friendly, socially acceptable low investment, small scale enterprise with high returns (Panigrahi et al., 2009). Projects in ornamental fisheries have been numerously associated with improvement of livelihoods (Swain et al., 2013; Rameshan and Sakthivel, 2014; Devi et al., 2016).

Some key areas Business Development Potential include:

Collection of Aquarium Fish as a Business:

Collection of wild aquarium fish offers great business opportunity to the adventurous business. India is well drained and has one of the most ecologically diverse aquatic biodiversity covering freshwater brackish-water and marine fishes. The out of all fish in the ornamental fish hobby 90-96%, is of freshwater origin produced in commercial aquaculture facilities (Chapman et al., 2014). The global aquatic pet trade encompasses a wide diversity of freshwater and marine organisms (Tlusty et al., 2012). Global Marine Aquarium Database data suggested that some 3.5-4.3 million fish a year, from nearly 1,500 different species, is traded worldwide. The collection acclimatization, packaging and shipping provide employment for thousands of persons involved in the trade in South America. The state of Amazonas, Brazil tops the chart as major ornamental fish collection hub in South America, with freshwater stingrays being one of the most important fishery resources marketed as ornamental fish (Oliveira, et al., 2016). A systematic planned aquarium fish collection and export enterprise will quickly create massive employment opportunities, generate income and foreign exchange. Many of our indigenous fish resources are unsuitable for conventional fish culture. These species not give best value when caught and sold by fishermen for consumption but could be more gainfully utilized as aquarium fishes due to their attractive shape, coloration, behavior and characteristics

Aquarium Fish Breeding as a Business:

During this study, it is found that varieties of Goldfish, Angel fish, Gourami Mollies, Guppies, zebra fish and Swordtails are well-known to be the most popular and desired ornamental fish species in the India. The trade in ornamental fish is large with US retail in ornamental fish market in excess of USD 3 billion involving over 5000 freshwater species (Rodriguez, 2000; Sikoki, 2013). With the increase in demand for ornamental fishes especially in USA, Europe and Japan, many countries in Asia have started culturing ornamental fishes (Yadav and Sharma, 2017). The major ornamental fish producing countries are mostly in Asia and Europe and together account for more than 70% of global exports (Heenatigala, 2011). India is rich with favourable climatic conditions and resources for breeding and rearing of aquarium fish for export. Fish farmers with minimal fish culture experience can incorporate aquarium fish rearing with minimal or no extra investment.

Aquarium Design, Installation, and Fabrication as a Business:

After a long period the aquarium fish keeping is increasing by the day in India. Schools, universities and research institutes are increasingly acquiring aquariums for education and research. The aquarium design, installation and fabrication is a promising new business for farmers, self employers and entrepreneurs. The design and installation of large aquariums require good technical knowledge and sophisticated equipment, the smaller sized aquariums can be constructed using basic tools and locally available materials. It a business that can be started without much capital investment.

Aquarium servicing and maintenance as a Business:

Aquarium servicing and maintenance is a profitable business when it should be combined with other ornamental fish enterprise till customer portfolio grows to sustainable levels. It is a business that does not require much capital investment, but efficiency and trust to grow. Aquarium stakeholder always take care, attend the look of clean and excellent pay attention to fish pot, tank and aquariums in their homes and offices, but not the hassle of maintaining them.

Start up Entrepreneurship as a business:

Getting started with the basic tools will save cost on expensive equipment and also help you to learn, earn and improvement in skills and business. Start from own home, friends circle and relatives or your existing business premises to save cost and expand as the business grows. It is suitable to learn proper maintenance, record keeping and develop better time management skills. There must be reliable and strong and firm to be successful in these businesses.

Conclusion:

In the present study it was observed that aquarium fish keeping and designing can be a promising alternative for liveliness and career of unemployed person and farmers. The main impelling and influencing factors were community norms ,demographical structures, social sequence and training. There is the need to make a position strong of India in the international aquarium fish trade for foreign exchange earnings. Small scale fish farmers and aquarium sellers and businessman can be trained in the sustainable collection of desirable aquarium fish species from the wild fish population. Encouragement of local captive breeding of popular exotic fish species in the aquarium fish trade will not only encourage local aquarium fish industry growth but also create jobs, self employment and earnings. Development of entrepreneurship and business in aquarium construction, design, installation, and fabrication, servicing and maintenance will further strengthen our country.

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A Study on the Impact of E-Banking Service Quality on Customer Satisfaction

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Abstract:

Currently, one of the sectors most extensively focused on growth and endurance through digitalization is the banking business. The government's efforts to promote cashless, anonymous transactions and technical improvements have prompted banks to consider digitization as part of their overall strategy. Various E-banking technologies have been introduced by commercial banks to facilitate anonymous, paperless, and cashless transactions. These solutions include digital wallets, ATMs, mobile banking, internet banking, and prepaid cards. The researcher has made an attempt to learn more about how customers in Kerala see the online banking services offered by commercial banks. The purpose of this study was to examine the relationship between the dimensions of E-Banking service quality and customer satisfaction. To do this, primary information was gathered from 110 users of internet banking. Percentage analysis is used as tools to analyze the data. The findings show that reliability, efficiency, and ease of use, responsiveness and communication, and security and privacy all have a significant impact on customer satisfaction. One of the most important banking services that, when done right, may boost client happiness and provide banks a competitive edge is e-banking. The banking sector may concentrate on what most satisfies consumers by understanding the relative relevance of service quality factors.

Keywords: Digitalization, E-Banking Services, Customer Satisfaction

Introduction:

Every modern economy depends on the banking industry to survive. Global experience has shown that nations with well-developed, market-oriented banking systems grow faster and more consistently than those with weaker, more tightly regulated systems. This is because an efficient banking structure can encourage larger amounts of investment, which can speed up the economy's growth rate. The country's economic health is reflected in the financial system. The growth of the global economy and the advancement of information and communication technology made it possible for the Indian banking system to move from providing traditional trade finance to more efficiently mobilizing and directing financial resources in practically every aspect of daily life.

Banking and financial services have had to adapt due to a number of significant issues, including globalization, the development of information and communications technology (ICT), fierce competition, and shifting business conditions. Extended branch operating hours and an expansion in the selection of delivery options are indicative of the growing customer demand for increased convenience and accessibility. As a result, new tactics are now necessary to draw in new customers as the old banking sector gives way to internet banking. E-banking offers options for quicker financial service delivery, meaning that a variety of consumers can receive banking products and services at their homes or places of business via a variety of electronic delivery channels using electronic devices. It offers numerous advantages that increase customer satisfaction and reach out to customers through a variety of channels for higher-quality service offerings, such as wireless channels, ATMs, phones, and the internet, which customers can now use in addition to traditional branch banking to complete their banking transactions.

Customer satisfaction means “consumer response to the evaluation of the perceived difference between expectations and final result after consumption”. Satisfaction can also be described as the feedback of a post purchase assessment of certain service/product’s quality, and compared with the expectation of the prior-purchasing stage. The satisfaction level of customers in the banking sector increases when using E-Banking services. Efficiency and ease of use, reliability, security and privacy, and responsiveness and communication as related to the quality of E-Banking services have a significant effect on customer satisfaction.

Statement of Problem:

Since 1991, the banking sector in India has supported significant shifts in the corporate world. Following deregulation, the Indian banking industry quickly shifted to globally connected technology-enabled services. Through self-service and technology-enabled services, these transactions are enabling the banks to improve their interactions with their clients. One of the key service areas in the Indian economy is the banking sector, which is growing thanks to contemporary advances that improve efficient customer care. The path for consumer-bank interaction is being paved by these contemporary banking services. Today, customers have a choice to select the modern banking services, i.e. Automatic Teller Machine (ATM), Tele Banking, Internet Banking, Mobile Banking, Credit card, Debit card, Electronic Clearing Service (ECS), National Electronic Fund transfer (NEFT), Real Time gross Settlement (RTGS), Cheque Truncation System (CTS), and Dematerialization.

However, the benefits of contemporary financial services include lower transaction costs, less congestion, improved service in rural locations, and client satisfaction. These channels provide clients with speedy transactions, less time wasted, convenience, and other benefits. Modern banking services are those that banks offer today using a variety of cutting-edge and contemporary technologies to make banking simple and convenient for customers. From the perspective of the banks, it is critical to conduct research into client satisfaction and attitudes regarding contemporary banking services. Therefore, the goal of the study is to examine how customers perceive utilizing contemporary banking services and to assess their level of satisfaction with e-banking transactions as a whole.

Objectives

1. To identify the usage of e-banking among customers.
2. To understand to what extent the quality of electronic services offered by banks would affect the satisfaction of the customer

Scope of the Study:

The e banking services to the banking sector made banking activities easier. The study is to find out the consumer satisfaction towards the e banking services of banks as well as its pros and cons and to analyze the usage of e banking services among customers. At the end of the study we get a clear picture about how effective the e banking services and customers' attitude towards it. The study is based on primary data, collected through questionnaires. This study focuses on satisfaction of users towards e-banking services.

Such study will help in enhancing their satisfaction level and thereby making them loyal with their prime bank. This research study makes an attempt to analyze how banks are attracting the various customers and how the customers are satisfied with the e banking services provided by the banks. This study will be helpful to draw up further policy for improving customer satisfaction with e-banking practices. Therefore, this study proposes to bridge the research gap by studying customer expectations and perceptions of public and private sector banks separately and comparatively.

Research Methodology:

It is a descriptive study based on primary source of data. Primary data is collected through a set of self-structured questionnaire. For this study 110 customers were selected. Percentage analysis is the tool used for the study. The samples used in this study are collected using convenience sampling which is a function of non-probability sampling.

Review of Literature:

Kumar Gautama (2023) investigates the association and impact between online banking service practices on e-customer satisfaction, and e-customer loyalty. In addition, it aims to analyze mediating role of e-satisfaction to online banking service practices and e-loyalty. The research followed the E-S-QUAL model to measure the online banking service quality (OBSQL) by five dimensions: e-customer service, site of the organization, website efficiency, user-friendliness, security, and privacy. It is based on quantitative research approach with a structured questionnaire through primary data collection by stratified random sampling.

Out of 475 questionnaires distributed, 384 usable questionnaires were used, and SPSS and AMOS were used to analyze. An exploratory factor analysis was used to confirm the online banking service quality dimensions and structural equation modeling was employed to estimate the parameters and structure. The result explained that the efficiency of the website and e-customer service were highly influential dimensions of online banking service practices, followed by user-friendliness, security and privacy, and the organization’s site. E-customer satisfaction significantly influences e-customer loyalty, and e-satisfaction mediates the association between online banking services and e-customer loyalty, which is a prime concern to bankers, users, and policymakers for continuous development.

Krishan Lal Grover (2022) studied the consumer’s perception on e-banking services. E-banking is one of the latest advances; clients may use it to access banking services 24 hours a day, without needing to visit a bank office for personal transactions. Mobile banking is a banking service given by banks to aid in the seamless and simple execution of financial transactions, as well as the effectiveness and efficiency with which consumers execute various transactions. The significant factors for usage of online banking among customers has been found are time saving, ease to use, cost effective, account information, speed, clear instructions, quality of work. These factors admire the customers to use online banking.

Sadia Khatoon, et al (2020) analyzed the link between the aspects of electronic (E)-banking service quality and consumer purchase intents investigated in the research, with customer satisfaction serving as a mediator factor. A verified closed-ended questionnaire was used to obtain data from 235 workers and clients employed in various Qatar banks. The gathered data were subjected to regression and correlation analysis to evaluate the research assumption, and the research delivered precise findings that met our predictions. According to the research's findings, client purchase intentions are influenced by dependability, economy, responsiveness, interaction, safety, and confidentiality. If clients are happy with the efficiency of E-banking services, their purchase intentions improve dramatically. It has been proven that customer satisfaction acts as a mediator between E-banking service excellence and customers' purchasing intentions. Consumer fulfillment had a limited influence on the link between E-banking service quality, information technology (IT), and customer purchase intentions when used as a mediator. The investigation had made a substantial contribution to the field of behavioral finance research in particular. The research had important implications for academics and professionals alike.

Results and Discussion:

Table 1: Demographic Profile

Gender	No. of Respondents	Percentage
Male	73	66.36
Female	37	33.63
Total	110	100
Age	**No. of Respondents**	**Percentage**
Below 25	87	79.1
26-35	17	15.5
36-45	4	3.6
46 and above	2	1.8
Total	110	100
Occupation	**No. of Respondents**	**Percentage**
High school	23	20.9
Diploma	11	10
UG	23	20.9
PG	52	47.27
Professional Degree	1	.9
Total	110	100
Annual Income	**No. of Respondents**	**Percentage**
Below 100000	35	31.8
Rs 100000-300000	27	24.54
Rs 300000-600000	22	20
600000 & Above	26	23.63
Total	110	100

Preference of e-banking	No. of Respondents	Percentage
Always	44	40.00
Often	33	30.00
Sometimes	21	19.09
Rare	9	8.18
Never	3	2.73
Total	110	100
Digital banking services	**No. of Respondents**	**Percentage**
Personal computers	16	14.95
Laptops	28	26.17
Smart phones	63	58.88
Others	3	2.72
Total	110	100
Years of accessing	**No. of Respondents**	**Percentage**
Less than 1 year	11	10.28
1-2years	16	14.96
2-3 years	29	27.10
3-4 years	26	24. 30
More than 4 years	28	23.36
Total	110	100

(Source: Primary data)

Interpretation:

The above table of frequency analysis reveals the demographic profile distribution of the respondents – Majority 66.36% is male. In age wise classification majority of the respondents (79.1%) are below the age group of 25 years. 47.27% of the respondents are Post Graduates, 31 % of the respondents are earning rupees below 1 lakh. 40 % of the respondents are prefer to use digital banking Always. 58.88% of the respondents prefer to use smart phones for their digital banking transactions. 27.10% of the respondents are using digital banking services for 2-3 years.

Table 2: Customers' Satisfaction towards E-Banking Services

Statements	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
		%		%		%		%		%
Convenience Measurement										
Services as per customer's will and needs	48	44.86	52	48.6	6	5.61	1	0.93	0	0
Services offer great facilities	7	6.54	50	46.73	47	43.92	1	0.93	2	1.87

Privacy Measurement										
Confidentiality	13	12.15	65	70.75	29	27.1	0	0	0	0
Personal Privacy is ensured	21	19.63	77	71.96	6	5.61	3	2.8	0	0
Cost Measurement										
Very cheap	50	46.73	42	39.25	15	14.02	0	0	0	0
Saves money of transportation	10	9.35	48	44.86	43	40.19	6	5.61	0	0
Ease of Use										
Very simple to use	35	31.71	57	53.27	14	13.08	0	0	1	0.93
Performs services immediately	23	21.5	64	59.81	18	16.82	2	1.87	0	
User friendly	21	19.63	77	71.96	6	5.61	3	2.8	0	0
Security Measurement										
Secured & safe to use	7	6.54	53	49.53	46	43	1	0.93	0	0
Trustworthy	15	14.02	65	60.75	27	25.23	0	0	0	0
Satisfaction Measurement										
Satisfied with the services	60	56.07	46	43	1	0.93	0	0	0	0
Strongly it recommend to others	45	42.06	57	53.27	5	4.67	0	0	0	0
Continue to use these services in future	38	35.51	63	58.88	5	4.67	1	0.93	0	0

(Source: Primary Data)

Interpretation:

The above table shows that 51.4 % of respondents are strongly agree to the statement that the digital banking services are convenient to use .49.53% respondents are saying that the banking transactions are highly secure. 19.63% respondents strongly agree and 71.96% of respondents agree that the digital banking services are user friendly. Majority -70.75% of respondents were agreeing that they are having confident while using digital banking services and respondents are agreeing that it is easy and simple to connect to digital banking services. A majority of 59.81% of respondents were agrees that they got immediate service always. 60.75% of respondents agree that the information provided by the digital banking services is trust worthy. 58.88% of respondents agree to that they intend to continue doing digital banking services and 53.27% of respondents were agreeing that they strongly recommend others to use the digital banking services. Majority of the customers are satisfied with the e-banking services.

Suggestions:

1) Banks' provision of customer assurance and information on trust of digital banking activities will surely improve the application of safety and privacy of the digital banking services.
2) The development of secure digital banking practises and appropriate risk management should be done by bankers in order to improve the services provided by digital banking.
3) For digital banking services, the client assistance system should be improved, as should the management strategy dimensions.
4) The banks ought to ensure their clients that their sensitive financial information will be kept private.
5) The bank's website and applications should be designed to be simple to use and easy to navigate and the transaction costs ought to be set at a low amount.
6) Customers will be persuaded to use digital banking services if the facility is improved and swift, universal services are offered at a reasonable price. All these actions will foster customer confidence and thereby increase the adoption of digital banking services.

Conclusion:

In general, E-banking has changed the traditional patterns of bank operations. These changes in technology, competition and lifestyles all have an impact on how banks operate today. Actually the customer had to physically visit the bank office in order to carry out banking operations.

With the introduction of e-banking customers are saving money and time since they don't have to physically visit the bank office. Bankers are also saving money as in traditional banking there was lots of unwanted costs involved, such as paper cost, hardcopy cost of statements etc. Through e-banking, banks can better maintain the relationship with customers because with e-banking customers tend to interact more with provided services. It also increases the revenues of banks and can easily gain competitive advantage through differentiation of banking services and thereby an image improvement. The study presents the data, drawn from a survey of Internet banking consumers showed that security and privacy measures has to be maintained properly.

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Identity Crisis in Edward P. Jones' the Known World

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Abstract:

The Known World is a novel written by Edward P. Jones. It depicts the condition of slaves in the antebellum era (before the civil war period). Henry Townsend, the black slave was owned by the White slave master William Robbins. Because of the relationship with Robbins, Henry started slaveholding business and deprives his identity to get freedom for his own people in the slave plantation. The identity crisis was not only felt by Henry and also the other black slaves in the slavery society.

Keywords: Slavery, Antebellum era, slavery and identity crisis

Identity Crisis in Edward P. Jones' *The Known World*

In the beginning of the novel, Henry Townsend was left to William Robbins at young age. So Henry grows with the culture of slaveholding business, due to his intimacy with Robbins.

"Henry had always said that he wanted to be a better Master than any white man he had ever known." (Jones 64)

The aim of Henry was to become a better slave master to his slaves than any white slave master. His identity as black slave to get freedom from white slave masters gets into crisis. Henry also started to purchase slaves for his plantation and owns them. Henry forgets his own identity as son of black slaves- Augustus Townsend and Mildred.

Moses, slave of Henry tries to become close to Henry. However that friendly relationship was spoiled by Robbins. Moses also felt identity crisis as he doesn't get bondage with his own fellow people like Henry. Henry started to treat Moses the same way as other white masters did to slaves.

"Moses….He was thirty-five years old and for every moment of those years he had been someone's slave, a white man's slave and then another white man's slave and now, for nearly ten years, the overseer slave for a black master." (Jones 21)

Henry Townsend's death has varied impact on his slaves and family members. For some slaves, a black slave master Henry's death determines either their identity as slaves with new master or as freed slave.

"A Black man had owned them, a strange thing for many in that world, and now that he is dead, may be a White man would buy them, which is not as strange."(Jones 61) Elias another slave in Henry's plantation tries to escape from the slavery institution. He tries to feel the freedom outside the slavery and to get identity attached with freedom. Later he finds his identity attached with slavery and he felt comfortable with it.

"He had been as safe as an angel at God's knee, safe on the road to freedom, and then he remembered that there is something way back in slavery that he had forgotten and so he ran back into slavery, passing millions who are running toward freedom."(Jones 101)

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Bricolage Is a Trait for Entrepreneurial Excellence

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Abstract:

In the past, entrepreneurs have argued that some intangible capital—like social or human capital—are necessary for a business to thrive. Nonetheless, a company's survival rate indicates its capacity to adjust to adverse and shifting conditions and maintain the business. Bricolaging, or creatively managing the "available" resources, is how the company's owner/manager, who possesses both resources and abilities, responds. Bricolage is a term often used in the context of entrepreneurship. It alludes to "making do" with what is "at hand" by reusing and recombining resources in the face of new problems or opportunities. This conceptual paper will discuss the topic of bricolage. It defines the terms "bricolage" and "bricoleur," the personification of the word. The article's objective is to identify particular bricolage measures that can be used to connect the concept to growth or performance in the business. The article also connects bricoleurs to entrepreneurs. Whether bricoleurs are born or formed is the final query posed in the study.

Keywords: Bricoleur, Bricolage, Entrepreneur, Born or Made, Performance

Introduction:

This conceptual study aims to reveal and illustrate how bricoleurs achieve a high level of entrepreneurial performance. The research is based on the idea that we are working with real entrepreneurs.

The definitions of "bricolage" and "bricoleur," as well as their historical background, will be covered in this essay. This investigation will also look at bricolage metrics and related variables. It will later assist regional scholars in doing pertinent fieldwork to bolster the bricolage idea. To validate the topic of this study, a conceptual comparison of bricoleurs with other entrepreneurs would be appropriate. Finally, the study will address the age-old query of whether bricoleurs are innate or learnable.

Bricolage:

Bricolage is a term used in entrepreneurship and innovation to describe the ability to repurpose whatever is available to create something entirely new. Bricolage the word was coined by French sociologist Levi-Strauss. To demonstrate that "savage" (i.e., aboriginal) peoples are equally enterprising as "civilized" peoples was Levi-Strauss' goal. He used the analogy of the "bricoleur" to the "engineer" to achieve that.In contrast to an engineer, a bricoleur will "make do" with whatever material and equipment available to complete a job as it goes along.

These days, the idea is used in many different disciplines, including political science, anthropology, philosophy of science, etc. The concept of "bricolage" has been helpful in the field of entrepreneurship to comprehend how individuals launch new businesses and produce innovative technology. It's a method by which individuals apply and blend different resources "at hand" to solve issues and seize opportunities. Bricolage practitioners, or "bricoleurs," begin with the materials at hand and work their way toward answers. The "at hand" resources are one's skills and knowledge, starting capital, and personal connections. Bricolage is seen as an adaptation to resource limitation.

In its original use, Levi-Strauss employs the term in a semiotic sense (symbolic), describing how actors "build ideological castles out of the debris of what was once a social discourse." Bricolage may also entail the exploitation and manipulation of "symbolic" resources. To come up with creative solutions, standard bricolage techniques include "bias for action," "making do," and "relaxing the rules of what resources could or could not be used for." Bricoleurs despise conventions, frequently questioning the biases of preexisting meaning patterns and disregarding prioritization and values applied to available resources.

Behaving like an entrepreneur while employed by a large corporation is known as intrapreneurship. The term **"intrapreneurship"** refers to the application of a corporate management style that combines approaches to innovation and risk-taking with incentive and motivational strategies that are more commonly associated with entrepreneurship. Corporate entrepreneurship is a more inclusive term that characterizes entrepreneurial activity within an existing organization, whereas intrapreneurship focuses on individual actions and behaviors. Halme defines intrapreneurial bricolage as an entrepreneurial endeavour that involves repurposing limited resources in inventive ways within a huge corporation. The act of individuals within organizations seeking new opportunities and deviating from the norm with an entrepreneurial spirit is known as intrapreneurship.

When pursuing their initiatives, intrapreneurs push the envelope and take on risks that other workers might not be willing to take on. Organizational support mechanisms that give intrapreneurs autonomy, resources, and emotional support are essential. Therefore, the intrapreneurial bricoleur continues without resources, autonomy, or emotional support from organizational support structures, but the typical intrapreneur may not. Like innovators, these bricoleurs also using any traditional methods at their disposal to advance their ideas.

Intrapreneurial or entrepreneurial bricoleurs need an intrinsic desire to succeed; otherwise, they are not a bricoleurs, let alone entrepreneurs or intrapreneurs. They are not driven by the possibility of financial gain, simply they behave like social entrepreneur.

Activating resources internally (if they are intrapreneurial bricoleurs) and externally is a part of bricolage operations. Resourcefulness is a mindset for bricolage. Resources are any means available to the bricoleur, such as technologies, spare time, professional and private networks and roles, and strategies for mobilizing resources (including persuasion and translation). This thinking shows up as a readiness to take on tough tasks.

Performance measures:

The concept of bricolage can only be beneficial if it can make a positive impact on the performance of the company. Bricolage can occasionally provide "brilliant unforeseen results," as Levi-Strauss himself emphasized (Levi-Strauss, 1966, pg. 17). These outcomes make it possible for start-ups to endure and grow in the face of difficulties.

Firm emergence assessments are among the performance metrics commonly employed in entrepreneurship. This could involve the procedure that businesses go through to finish tasks so they can start operating. Companies that go live are favoured over those that continue or close and that continuing is favoured over closing. Businesses under the control of bricoleurs would significantly outperform firms under control of non-bricoleurs in these evaluations.

Firm sales are a more typical metric in entrepreneurship. Only a few number of bricolage studies have made an effort to assess these performance metrics thus far clearly. Three significant and connected mechanisms are presented by Senyard (2015) to help explain the favourable correlation between bricolage and company performance. These are inventiveness, co-creation, and development speed.

The capacity to move swiftly from concepts to finished goods or solutions is known as speed of development. It is a crucial procedure that affects how well a company performs. Since resource availability is critical, a bricoleur or bricolage operation can accelerate development considerably. Bricoleurs, who tend to be action-oriented, generate "momentum" by improvising and using available resources. Numerous scholars have concluded that quicker development and deployment enable businesses to gain a competitive advantage over rivals and achieve advantageous market positions, both of which have a substantial positive impact on business performance. This stands in contrasts with other common responses to limitations, such as giving up, downsizing, or delaying. Businesses run by non-bricoleurs, who exhibit more conventional resource-seeking behaviors, will have to invest a lot of effort to draw in new stakeholders.

Co-creation is a bricolage activity in which customers actively participate and provide input into the design process to produce solutions that better meet their demands and ultimately increase customer happiness. Access to price-cut or complimentary quality, pertinent materials is another benefit of this partnership.

Because bricoleurs are more likely to take the initiative and tamper extensively with already-existing resources, they are more likely to produce new solutions than non-bricolage organizations. Baker and Nelson (2005) state that bricoleurs "develop a diverse trove which is applied through a permissive and flexible approach to design," which often results in creative solutions. Based on these three methods, Senyard (2015) conjectured that bricolage has a generally positive effect on early-stage business sales and the performance of embryonic enterprises.

Baker and Nelson (2005) observe that bricolage is not a panacea. They want to convey that increased bricolage does not always translate into more tremendous success. Growth may be hampered by what they called "excessive" and "parallel" bricolage (Baker and Nelson, 2005). Instead they suggested bricolage that is "selective."

Regarding the measurement of bricolage, which would help distinguish between selective and excessive bricolage, Baker and Nelson remind us that bricolage is defined on a multi-level basis of people, tasks, and resources; therefore, it must be taken into consideration at that multi-level basis when relating it to firm growth. Also, they point out that bricolage can appear in five distinct environmental domains, which they classify into three groups: (i) inputs, which include labour, physical inputs, and skills; (ii) customers or markets; and (iii) the institutional and regulatory environment. Engaging in bricolage across all five domains may lead to what they called a "bricolage identity" or a "permissive community of practice," which might impede the firm's growth by making it more difficult to recognize and take advantage of possibilities in larger markets. On the other hand, they claim that "selective bricolage"—which appears in fewer domains—dominates due to the resource-driven growth process. To put it briefly, bricoleurs who practice bricolage in fewer fields rather than more are more likely to succeed.

Any of the three domain types can use bricolage. A bricoleur may focus on the input category, which consists of labour, materials, and expertise. These business owners typically have a large inventory of components, tools, and other tangible resources. Reports show that these entrepreneurs are not engineers with formal education; instead, they are often self-taught jacks of all trades. Second, bricoleurs might go after specific markets or clients. Customers would be used as a source of labour or knowledge in their field work as they experimented in this scenario. They would also serve everyone they could rather than concentrate on specific clientele. They establish a network of friends with their consumers because they get along well. Thirdly, they use the resources at their disposal to develop creative solutions for the institutional and regulatory environments, taking into account the drawbacks of disobeying laws on to the environment and workplace safety. Understandably, that business owners frequently break the law by operating without a permit, neglecting to pay taxes, or even erecting structures without the necessary Environmental Impact Studies as mandated by authorities.

Currently in use is a scale created by the CAUSEE Project (Senyard, Baker & Davidsson, 2009), likewise based on Baker and Nelson's (2005) concept of bricolage. It has three components: (1) using available resources; (2) making due; and (3) combining resources to take advantage of new possibilities and issues. Eight things on the scale, ranging from "never" to "always," are graded on a five-point scale. According to Ronkko et al. (2014), the scale is intended to gauge the prevalence of bricolage within a company without considering the various domains in which it may take place. This is a drawback because bricolage in one area can give a company a high score. For this reason, Ronkko and associates are putting forth domain-based measures to improve quantitative studies into the relationship between bricolage and growth.

Senyard, Baker, Steffens, and Davidsson (2014) investigated how bricolage affected new businesses' ability to be innovative when they had limited resources. Their metrics were based on four aspects of new enterprises' innovativeness: (i) innovative products; (ii) innovative processes; (iii) innovative marketing tactics; and (iv) innovative target market selection. Additionally, they employed a four-point rating system: (0) initiative; (1) significant improvement over current industry products; (2) entirely new for the industry; and (3) new to the globe.

In summarizing this intricate section, it is essential to remember that bricolage is a multifaceted concept and a qualitative reality. Finding measurements that correlate easily with the firm's development or performance is ideal, but developing such metrics is conceptually challenging. The majority of researchers will use ordinal measurements that come from Likert-type scales.

Bricoleurs and Entrepreneurs:

Such a subheading appears to be an attempt to draw too much attention to itself. This is true since, on the surface, a bricoleur and an entrepreneur are the same, except that a bricoleur is a "more intense" entrepreneur. Entrepreneurial passion (EP), characterized as a person's firm, positive predisposition towards entrepreneurial activity, is a crucial concept in entrepreneurship. The impact of an entrepreneur's passion is seen in the survival of new businesses. Bricolage is an entrepreneurial technique to resource construction used by highly passionate entrepreneurs (about their start-ups) passion for entrepreneurship precedes bricolage, which acts as a bridge to early survival.

In response to environments that present new challenges without providing new resources, entrepreneurs essentially have three options: (1) seek resources from domains external to the firm; (2) avoid new challenges by remaining inert and downsizing; or (3) enact bricolage by making do by applying combinations of resources at hand to new problems and opportunities. Baker and Nelson (2005) offer a solution to our quest for a relationship between bricoleurs and entrepreneurs.

Enthusiastic businesspeople are unlikely to take the second route mentioned above since it restricts their ability to pursue their dreams, which is terrible for their sense of pleasure and self-worth. Someone with a lukewarm attitude toward entrepreneurship (e.g., someone forced into business ownership because of the lack of other opportunities for work) is less likely to engage in bricolage than an entrepreneur who is passionate about creating entrepreneurial solutions, founding a firm, and growing that firm through the early resource scarcity (Stenholm and Renko, 2016). Stated differently, a bricoleur—a person who is a fantastic entrepreneur because of their passion—distinguishes themselves from an ordinary entrepreneur. Only via bricolage efforts undertaken by driven entrepreneurs can new businesses facing resource constraints survive. It clarifies how bricolage functions as an early survival mediator variable.

Bricoleurs are Made or Born:

Whether entrepreneurs and hence bricoleurs, are born or made has been debated for a long time and is still going strong. Both sides of the argument are passionate and frequently present their positions with great deal of "entrepreneurial" fervour. Not much progress will be achieved in creating unmatched company concepts that will transform the world, even if an individual can obtain entrepreneurial education but lacks the innate talent to succeed. One prominent entrepreneur, Lord Alan Sugar, said that having an entrepreneurial spirit is innate and doesn't matter what books you read or which business school you attend. You can't walk into Boots and get a bottle of entrepreneurial juice.

But many people, especially business developers, don't think that way. According to serial entrepreneur Jonathan Richards, for example, having an entrepreneurial mindset is not something we are born with; instead it is the culmination of all our experiences. "When an idea comes together with a person who is happy to balance creativity and management; understand, live with, and manage risk; evangelize the idea in the face of negativity; and stay responsive and positive," the author claims, an entrepreneur is produced.

The latter perspective appears more grounded. People are indeed "born" with different aptitudes—or, perhaps more accurately, that they develop different aptitudes as they grow older—but this does not exclude them from learning new aptitudes. In the vernacular, God endows everyone with the capacity for learning even though he creates individuals with varying talents!

The only quality one may say they were "born" with is "passion." It's a quality that can be acquired as well. Someone with a general enthusiasm might also direct their passion toward other endeavours, such as creating, founding, or developing. One could categorize such as an entrepreneur. An entrepreneur can attempt to be a bricoleur or even receive training in bricolage activities, which serve as a bridge to early survival. In summary, individuals possess varying aptitudes from birth; nonetheless, it is their responsibility to cultivate these traits into desired strengths. Bricoleurs and entrepreneurs are created.

Discussion:

In the field of entrepreneurship, new words and ideas keep emerging. Some of these ideas are taken from related fields and are thought to improve comprehension and analysis of original ideas in entrepreneurship. Bricolage is one instance of these ideas. One would have assumed that the pinnacle of this sector would be entrepreneurship, bolstered by a plethora of attributes. No, fresh ideas just keep coming up.

The definitions of bricolage and bricoleur attempts to improve metrics of bricolage and economic growth or performance, the relationship between bricoleurs and entrepreneurs, and the age-old dispute over whether bricoleurs and entrepreneurs are born or made have all been attempted to be covered in this paper.

Literature highlights the capacity for "making do" with already-existing resources and combining resources to take on new challenges and seize new chances when defining the terms "bricolage" and "bricoleur." These can be addressed in a variety of dimensions. According to these definitions, a bricoleur is a "super" entrepreneur. An entrepreneur is more likely to fail or have delays than a bricoleur. To guarantee success, bricolage activities are thought to mediate entrepreneurial attributes like passion.

Research has also indicated that although the idea of bricolage is now well-established and possibly well - accepted, measurements for bricolage are still lacking, so quantitative researchers continue to conclude that there are no valuable metrics. The only quantitative study these academics have sought to conduct has involved ordinal measurements produced using well-known scales such as the Likert scale. These are measures that are currently non-objective and can only be used based on the statements made by the bricoleurs themselves about their actions. We run the risk of comparing "apples" to "oranges" when we draw comparisons between entrepreneurs and bricoleurs. Specifically, while examining the entrepreneur, the trait method may be applied, although bricolage is an activity. Activities related to bricolage are not inherently the domain of the bricoleur. They are also performable by entrepreneurs. This complicates the comparison between entrepreneurs and bricoleurs for analysts. There will always be disagreement about whether bricoleurs and entrepreneurs are "made" or born. The discussion is unlikely to end because both sides are adamant that they are correct, even though one could sympathize with one of them.

Conclusion:

Bricolage is an idea that has gained popularity in enterprise development research and has been used by scholars for around fifty years. It is safe to say that a theory of bricolage has been primarily formed, and scholars such as Baker and Nelson deserve recognition for their contributions. Further research is still required in several areas, such as the development of bricolage measurements and the search for a unified methodology for studying entrepreneurship and bricolage. It is possible to argue that the introduction of these ideas serves as a reminder for scholars studying entrepreneurship to strengthen their theoretical frameworks. More ideas will inevitably come to light. It is still unclear if we are truly making progress in comprehending the concept of entrepreneurship or if we are just missing specific details.

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Impact of Learning and Development on Employee Performance and Retention in Telecom and IT Industries

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Abstract:

In the contemporary corporate landscape, the significance of learning and development (L&D) cannot be overstated, as organizations recognize the pivotal role it plays in fostering employee growth and adaptability. The establishment of a robust learning and development facility has become a cornerstone for progressive companies seeking to enhance their workforce's capabilities and overall performance.

Learning and development initiatives go beyond traditional training programs; they encompass a multifaceted approach to providing employees with opportunities to acquire new skills, unlock their untapped potential, and seamlessly adapt to evolving job requirements. This holistic strategy aims to create a dynamic and versatile workforce, aligning individual skills with organizational objectives.

The present study, a comprehensive literature review, delves into the intricate facets of learning and development, shedding light on its correlation with employee satisfaction and its pivotal role in knowledge management. As employees engage in continuous learning, they not only enhance their competencies but also contribute to the creation and dissemination of knowledge within the organization. This knowledge management aspect becomes a catalyst for improved performance across various facets of workplace dynamics.

Furthermore, the study explores the symbiotic relationship between learning and development initiatives and employee retention. In an era where talent retention is a strategic imperative, organizations recognize the intrinsic link between investing in employee development and fostering a sense of loyalty and commitment. Employees who perceive tangible opportunities for growth and skill enhancement are more likely to remain engaged and loyal, thereby mitigating turnover risks.

By delving into these interconnected dimensions, the study aims to provide organizations with valuable insights into crafting effective learning and development strategies that not only nurture employee satisfaction and knowledge capital but also serve as a potent tool for bolstering organizational performance. As industries continue to evolve, the ability to adapt and innovate becomes a competitive advantage, and a well-structured learning and development framework emerges as a linchpin in achieving sustained success in the dynamic business landscape.

Keywords: Learning, Development, Employee Performance, Job Satisfaction, Retention.

Introduction:

Enhancing employee performance, raising retention rates, and fostering efficient knowledge management inside organisations are all felt necessary by the organisations and could be made possible by learning and development. In order to boost individual performance and promote a culture of ongoing growth and development, organisations are giving employees chance to learn new skills and knowledge. Initiatives for learning and development give employees the tools they need to adjust to shifting job requirements, which increases productivity and equips them to face new difficulties with confidence. Additionally, businesses that place a high priority on learning and development show a dedication to the development of their workforce, which increases employee loyalty and job satisfaction. Organisations that invest in the development of their staff are better able to manage their HR functions because their staff members feel appreciated and supported.

Literature Review:

The researcher reviewed various articles to understand the topic Impact of Learning and development on employee performance and retention in service industry.

"Sami Abdullah Al-bahussin and Wael Hassan El-garaihy" (2013) have demonstrated in their study to "Identify the connections amid organisational culture, knowledge management, and organisational innovation". The study examines the literature work on human resource management and focuses on 203 human resource directors in major corporations in Saudi Arabia's Eastern Region. The work suggests a conceptual schema using confirmatory factor analysis and causality theories. It looks at organisational performance, knowledge management, organisational innovation, and human resource management procedures. The study emphasises the value of building up, contributing to, and utilising knowledge assets to support and preserve an organization's knowledge base. Organisational innovation and knowledge management techniques produce unique value in capabilities, giving them a competitive edge and enhancing organisational performance.

AMIT BIJON DUTTA and SNEHA BANERJEE, (2014) have made a study on “Employee retention”. Retention also referred as a company's ability to keep its employees, and this is a growing source of concern for businesses. Any organization's retention rate is significantly influenced by elements including organisational culture, pay and benefits, flexibility, and job satisfaction. Long-term health and performance of any Organisation depends on the retention of key employees. Sales, customer satisfaction, work culture, planning, knowledge and learning can be ensured by keeping the finest employee. This study further elaborates those wages, lack of challenges and lack of confidence in management are possible reasons why an employee would leave. Therefore, it is in a company's best advantage to look into ways to foster employee loyalty more effectively. The characteristics that affect good or bad employee commitment and, consequently, retention include "Equality at Work", "Care and Concern for Employees," and "Faith in Employees".

Mengjun Chen, (2014) studied The Effect of Training on Employee Retention. He studied the connection between staff retention and training. It was observed that training helped organisation to improve the performance, which in turn helped in employee retention. Because some firms see training as a costly risk, there isn't enough money invested in training activities. This study further suggested to consider 3 aspects. Firstly, to study and analyse the cost of training with advantages. Secondly, future research to study the relation between trainees' individual characteristics and training performance, intelligence, gender, and ethnicity. Lastly, relation between training and performance to be studied along with relation between training and retention as performance may have priority over retention.

Maqsood Haider et al., (2015) taken up a study on The Impact of Human Resource Practices on Employee Retention in the Telecom Sector. In this study, retention-promoting HR practises are investigated. Good HR practises can reduce staff turnover and increase employee retention within a company. Key employees are the force behind an organization's overall growth and development. The telecom sector in Pakistan is the subject of this study. A questionnaire was developed for this study with the help of the literature to evaluate the identified HR practises and employee retention. The study's sample consisted of 250 participants. Regression analysis was used in the data analysis. Regression analysis' findings suggested that HR practices have a big impact on employee retention. Employee retention is positively connected with pay and culture and adversely correlated with training and development. The results demonstrate how good and successful the telecom sector is at retaining workers. Additionally, it is developing a culture that helps retain staff at all levels. To increase performance, training and development are used to increase employee knowledge. Training and development aid in improving performance and retaining essential personnel.

Ahmad Adnan Al-Tit (2016) have made a study The Mediating Role of Knowledge Management and the Moderating Part of Organizational Culture between HRM Practices and Organizational Performance. Knowledge Management (KM) and HRM practices have a well-documented association. HRM practices can be divided into low-cost and high-commitment practices. KM is closely related to high-involvement HRM practices such as selective recruiting, in-depth training, employee empowerment, and performance management. The linkages between HR practices, KM, and OP are hypothesised to have a positive effect on these practices. The study by Theriou and Chatzoglou discovered a link between HRM best practices and KM, with HRM processes reliably projecting KM. The study is consistent with hypothesis 2, which holds that OP is predicted by HRM practices either directly or indirectly through KM. While there is a negative correlation between HRM practices and KM, organisational focus (OC) moderates the interaction between HRM practices and OP in a favorable way. Similar studies about the favorable effects of HRM practices on OP have been published in the literature.

Ingy Essam Eldin Salama, (2017) have made a study on “The impact of knowledge management capability, organizational learning, and supply chain management practices on organizational performance”. Organisational success is said to be influenced by the complementing organisational capabilities of KM and organisational learning. Training, conferences on business and entrepreneurship, supply chain management and information systems, teamwork, e-learning, job rotation, career planning, and other activities are all part of the organisational learning process, which improves organisational performance whether they are carried out on an individual or organisational basis. Organisational learning and the capability of knowledge management According to prior research, organisations could improve their organisational performance by integrating KM or organisational learning systems with other organisational practices and systems, including invention, HR management, culture, IT and leadership. Examples of these KM competences were IT and organisational culture. According to several academics, KM enablers either support organisational learning or KM itself is a by-product of organisational learning. More research are required to determine what influences organisational success in Egyptian factories because the research results did not indicate a substantial impact of KM capabilities, organisational learning, or SCM practices on organisational performance.

"Sanjay K Deshpande and M. M. Munshi (2019) have demonstrated soft skill training as an intervention to reinforce employee performance in the contemporary banking sector". The study by the Banking Commission emphasises the significance of training in achieving the sector's developmental banking goals in India. There is a backlog in building training facilities due to the demand for larger facilities and integrated programs. In order to meet the increasing job requirements brought on by the development and expansion of the financial system, training is crucial. Trainers need to have a well-planned training timetable and confidently exhibit their topic knowledge. Organisational elements including the training environment, awareness, participation, and assessment methods are positively correlated with training efficacy. However, in tier II and III cities, top management and important stakeholders are reluctant to integrate training into their organisations. Other forms of training include 360-degree feedback, mentoring, job rotation, required certification, on-the-job training, and mandatory certification. This study shows that trained employees carry out their jobs diligently and more intelligently. As a result, training is a crucial and beneficial intervention that improves employees' performance.

"Mieke Rahayu, Fahmi Rasid and Hendy Tannady (2019) have studied The Effect of Career Training and Development on Job Satisfaction and its Implications for the Organizational Commitment of Regional Secretariat (SETDA) Employees of Jambi Provincial Government". The goal of this study was to ascertain how career training and development affected job satisfaction and organisational commitment simultaneously and partially. 200 respondents were selected for a sample using quantitative research techniques from 665 populations. Utilising structural equation modelling, data were examined. The Jambi Provincial Government's Regional Secretariat (SETDA) employees' job satisfaction is positively and significantly impacted by their career growth. Training has a favourable and considerable impact on the employees of the Regional Secretariat (SETDA) of the Jambi Provincial Government's job satisfaction. The Jambi Provincial Government Regional Secretariat (SETDA) has found that career development and training combination have a positive and significant impact on employees' job satisfaction, with a coefficient of determination (R2) of 51%. Career progression and job satisfaction, both partial elements, have a favourable and significant impact on the commitment of the Regional Secretariat (SETDA) personnel organisation of the Jambi Provincial Government. With a determination coefficient value (R2) of 79%, it can be seen that career development variables, training, and job satisfaction can collectively account for 79% of the employee organisational commitment variables. This effect is considerable and shapes the commitment of the "Jambi Provincial Government Secretariat (SETDA) staff". The most important factor in raising employee organisational commitment is the variable of job satisfaction, which is reflected in organisational conditions dimensions (Y1) with indicators of the level of verbal recognition and continuance commitment dimensions (Y4) with indicators of the level of trust in organisational prospects.

Ms Shahtaj Yousuf and Dr Danish Ahmed Siddqui, (2019) have made a study to find "Factors Influencing Employee Retention in Karachi Based IT and Banking Industry". Study provides insightful data on the variables affecting employee happiness and their intention to leave a company. Research will clarify the benefits and drawbacks of employee retention, assisting IT and bank managers in making effective use of retention variables to maintain a consistent workforce and slow down employee turnover. Management is engaged in developing various retention strategies by considering various retention factors which are responsible for employees' intention to stay back with an organisation. Result after comparing the values of t and p gathered from data from IT companies and the banking sector, it was found that performance appraisal appears to have a significant impact on employee retention according to employees in the IT sector, whereas training and development is the most influencing factor for employee retention according to employees working in Karachi's banks. The results of regression analysis on data collected from bank workers show that training and development have a relatively greater impact on staff retention.

Muhammad Wassem et al., (2019) have examined the Impact of Capacity Building and Managerial Support on Employees' Performance: The Moderating Role of Employees' Retention. This study was focused on understanding how "Managers' assistance and capacity building" impact employee performance in textile sector. Employee performance is influenced by a number of factors, including managerial support, training initiatives, retention efforts, monetary and non-monetary benefits, and training and support initiatives for career development offered by an organisation.

Higher employee performance ultimately results in increased firm profitability. In this study data was gathered through convenience sampling. A self-administered questionnaire survey was utilised to collect the data. 200 copies of questionnaires were sent to lower and middle level textile industry workers in Pakistan to collect data. For the analysis, SPSS 23 and SmartPLS-3 were utilised. The findings show that increasing employee capacity has a favourable and substantial impact on performance. Whereas managerial assistance has little effect on workers' output. The effect of managerial support and capacity building on employee performance is beneficial, albeit it is greatly tempered by employee retention. The first piece of advice regarding employees in emerging country industries is that they should give capacity building top priority. Another significant implication of this study is that in order to strengthen the connection between capacity building and internal customer performance, employers must establish the best retention policies and strategies and put them into practice, along with the right set of internal customer retention practices.

Diwakar Singh (2019) has researched Employee Retention with Focus on Recent Trends. Employees are an organization's most essential, important, and effective asset, making their retention most difficult tasks for managers to fulfil, according to a LR on the subject with a focus on current developments. The author of this study on employees discusses the PROBLEMS WITH EMPLOYEE RETENTION. His research suggested that allowing employees to express their dissatisfaction with working conditions increases the likelihood that they will stay with the company, meaning that there are more chances that employees will stick with such a company because they believe it has a better grievance handling system. Training, Development, and Retention are linked in a different Terera & Ngirande F. study. Employees that receive problem-solving training become more engaged, driven, and self-assured, which increases their likelihood of staying with the company. The outcome establishing important link between work satisfaction and staff retention provides company with guidance on how to maintain employee satisfaction.

"Md. Mobarak Karim, Musfiq M. Choudhury and Wasib Bin Latif (2019) have discussed on THE Impact Of Training And Development On Employees' Performance". This study results shown that the most important resource of any organisation is its employees. For effective and efficient execution of job, organisation needs trained workers. The companies' continuous procedures are what support the growth of aptitudes, know-how, and abilities. Employee performance is improved via training and development. The personnel of an organisation determine its effectiveness. In this era of globalisation, training is crucial for the competitive and challenging corporate environment. An important component of HR management is training and development. Employing competent and skilled people is essential for a business to achieve better performance, and employees are more competent when they have the requisite skills and knowledge. Through training and development, employees would have the chance to advance their status within the organisation and their career prospects. Therefore, the objective of this study is to investigate how employee performance is impacted by training and development. The HR division frequently hires capable people from a variety of sources and provides training to address global concerns. They maintain talent within the organisation, guaranteeing that performers have a clear career path, and assist them in operating and contributing more effectively and efficiently through a number of HR initiatives and training programmes.

Retno Sari Murtiningsih (2020) has studied "The Impact of Compensation, Training, and Development and Organizational Culture on Job Satisfaction and Retention". The study results found that Organizational culture plays a significant role in employee retention, with a positive culture and values reducing turnover. Employee job satisfaction is crucial for retention, and higher perceptions of job satisfaction lead to higher retention rates. Compensation and training and development also contribute to employee retention, but organizational culture and culture do not. Based on the results of those prior research, organisational culture has a favourable effect on staff retention. Because job satisfaction is the primary factor in employees sticking around the organisation, it is necessary. The notion of employee retention increases with perceived work satisfaction among employees.

Nomahaza Mahadi et al., (2020) have made a study on Determinant Factors for Employee Retention. Dealing with staff turnover, retention, and engagement is one of the most difficult problems in HR management. A high staff turnover rate is a bad sign as this results in increase in the overall expenses and time necessary to train new workers for the organisation. The difficulty of implementing these variables in the context of Malaysian organisations are therefore presented in this paper together with the determining factors for employee retention in an organisation. This paper clarifies how businesses could find fresh approaches to enhance their staff retention initiatives. Employee retention intentions within a given organisation are influenced by a variety of factors. These variables may differ between other nations, industries, businesses, even departments within a single company. The organization's success depends on keeping capable individuals on board for as long as possible, as high staff turnover would severely impact its capacity to run, deliver services, and create income. According to both employees and employers, the top 2 factors that contribute to employee attraction are base pay/salary and career growth. For the next 5 criteria, the perspectives of the employer and employee are different.

Cuong Nguyen, (2020) have conducted a study on The Impact of Training and Development, Job Satisfaction and Job Performance on Young Employee Retention. This study was to understand how training and development, employee performance and job satisfaction relate to young employees' retention. The study was conducted on participants who were either university students majoring in economics or who had knowledge of the organisational elements affecting the retention of young employees in Vietnam. The authors investigated the hypotheses using a quantitative approach that used multiple linear regression. A detailed questionnaire was used in order to collect data from 351 individuals. The findings revealed a good relationship between young employee retention and training and development, as well as a positive relationship between young employee retention and job satisfaction and job performance. The research also comes to the conclusion that youthful employee retention in Vietnamese organisations is positively correlated with job satisfaction, job performance, training, and development. In general, these findings are significant because they demonstrate the combined influence of job performance, job satisfaction, and training and development on the criterion variable.

Riham Al Aina and Tarik Atan, (2020) have made a study “through an empirical analysis of talent management in the United Arab Emirates”. A standard questionnaire was given to 306 managers working for real estate companies to gather the data. Through the use of structural equation modelling (SEM), the provided hypotheses were confirmed. The findings of this study demonstrate that learning and development and career management were found to have significantly favorable impacts, talent acquisition and talent retention had little impact on sustainable organisational performance. Study further suggests that management should focus on training programs, job rotation, and employee career management so as to achieve sustainable organisational success.

Ricardo S. Biason, (2020) have studied “THE EFFECT OF JOB SATISFACTION ON EMPLOYEE RETENTION”. The study demonstrates that management, social psychology, and operational practice all recently given proper attention for job satisfaction and employee retention. This study looks at more than ten years' worth of research on the factors that affect work satisfaction and employee retention. The current study is looking into the relationship between job satisfaction and employee retention. For this, the study used a descriptive research design. Together, the study's findings show a strong link between job satisfaction and employee retention. Study's conclusions demonstrate that increase in job satisfaction results in increased employee retention. Higher levels of employee retention follow often from higher levels of work satisfaction.

Abdulrahman Abdullah Alshammari, (2020) have made a study to examine the Impact of Human Resource Management Practices, Organizational Learning, Organizational Culture and Knowledge Management Capabilities on Organizational Performance. This study assessed the relationship between organisational performance and knowledge management capabilities along with the mediating effects of knowledge management, human resource management practices, and organisational learning. This study suggests that Organisational learning has a favorable impact on performance and Organisational Performance is highly impacted by organisational culture. Performance in the Workplace When it comes to evaluating organisational performance, multiple studies have been done using different methodologies. In the end, organisational performance was correlated with organisational learning, knowledge management, and culture. These research' findings make it clear that organisational culture and organisational learning and knowledge management capacities are related and reason for enhanced performance.

Setyo Riyanto, Endri Endri and Novita Herlisha (2021) have made a study on “Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement”. Performance is not directly impacted by employee involvement, but it can be considerably impacted by the mediation of motivation and job satisfaction. Performance reviews offer feedback, and training initiatives assist staff in acquiring the skills necessary to reach their full potential. In order to evaluate people, build competencies, enhance performance, and give awards, employee performance management entails a variety of actions. According to the study, boosting motivation, fostering creativity, and creating performance improvement goals are necessary for enhancing employee engagement.

Bilqees Ghani et al., (2022) have made a study on Challenges and Strategies for Employee Retention in the Hospitality Industry. In order to retain talented personnel for a longer period of time, the current study intends to evaluate and debate employee retention tactics in the hospitality business. The analysis is based on prior research and articles with peer review that were released between 2010 and 2020. The results of this study suggest that employee retention is dependent on employee satisfaction, which is made up of four factors: a long-term favorable work environment; long-term opportunities for growth; long-term effective communication; and long-term successful hiring and selection procedures. The study offers clear guidelines that will be helpful in developing staff retention strategies and practices. According to research, satisfied workers are less likely to leave their present position, but dissatisfied workers are predicted to leave their current position for better career opportunity.

Endang Sugiarti (2022) has made an empirical study on "The Influence of Training, Work Environment and Career Development on Work Motivation That Has an Impact on Employee Performance". According to pre-survey data, the suitability, accuracy, mastery, distribution of participants, and ability to cooperate with others of the training material are elements that affect employee morale. To improve employee motivation and performance, the workplace must be comfortable. The illumination, noise level, cleanliness of the workplace, and security measures are all factors that have an impact on the work environment. Employees are more motivated to complete tasks efficiently and manage their time in a favorable work environment. To guarantee that workers are motivated to finish their work, leadership should maintain a well-maintained physical and non-physical work environment. With a correlation value of 0.641, the working environment has a positive and significant impact on motivation. Good training, better work environment, and career development all have a positive impact on employee performance.

Yashaswee Dash and Sanjita Lenka (2023) in their article on "Impact of HRM Practices on Organizational Performance" identified the goal of contemporary human resource management strategies is to increase employees' aptitude and commitment, giving them a competitive edge. These procedures combine human resource, structural, and cultural strategies. When properly implemented, these practices give workers the resources they need to effectively contribute to accomplishing organisational goals. Procedures for HRM are essential in predicting organisational performance. This study examines the impact of HR practices, such as training practices, performance appraisal practices, and recruiting and selecting practices on organisational performance (OP) in a sample of Indian state of Odisha's IT businesses. According to the study, training and organisational success are positively correlated with performance evaluation procedures. The best predictor of organisational performance was found to be performance reviews, followed by training procedures. The overall impact of HR procedures may be responsible for 16% of the variation in organisational performance.

Yashaswee Dash and Sanjita Lenka (2023) have suggested that Performance evaluations have the best potential to influence organisational performance, to sum up. Through a well-designed assessment system, organisations can examine, recognise, and promote individual contributions, improving overall performance. Employees can better understand their roles within the firm, align their efforts with its objectives, and work together to achieve those objectives with the aid of a clear framework for evaluating performance, identifying possibilities for improvement, and providing constructive criticism. Organisations must put a high priority on developing and implementing effective appraisal processes in order to achieve their full potential.

Dr. S. Gokula Krishnan, Dr. R. Satheeshkumar and Arundathi K L, (2023) studied IMPACT OF EMPLOYEE COMMUNICATION AND PERSON ORGANIZATION FIT ON EMPLOYEE RETENTION. Performance is not directly impacted by employee involvement, but it can be considerably impacted by the mediation of motivation and job satisfaction. Performance reviews offer feedback, and training initiatives assist staff in acquiring the skills necessary to reach their full potential. In order to evaluate people, build competencies, enhance performance, and give awards, employee performance management entails a variety of actions. Employee communication is the most highly significant predictor of employee retention, followed by person organisation fit, according to this study. Employee communication is also the important predictor of employee turnover. Additionally, this study showed that employee communication, organisational fit, and retention varied greatly according on the employees' gender, age, occupation, level of education, and experience.

Research Gaps:

Current available literature on Learning and development are more in other countries and found fewer studies in India. Hence there is a need to conduct the studies on learning and development in Indian context.

Most of the studies are conducted on government, public sector organizations and banks etc. and fewer studies are found on corporates specially in Telecom and IT industry. Hence there is a need to conduct the studies in the context of corporate sectors specially in Telecom and IT industry.

Conclusion:

Study above suggests that learning and development initiatives have a profound impact on various aspects of an organization and its workforce. Employee retention is identified as a critical concern, and factors such as organizational culture, job satisfaction, career development, and training are found to have a significant impact on retention rates. Further, the collection of studies discussed above highlights the significance of various factors in relation to employee performance, retention, knowledge management, productivity, HR management, and job satisfaction. The studies emphasize the importance of learning and development in enhancing employee performance and fostering a culture of continuous growth. They also underscore the role of knowledge management practices in promoting organizational innovation and competitive advantage. Moreover, learning and development initiatives contribute to effective knowledge management within an organization. By investing in employee growth and providing opportunities for skill enhancement, organizations can witness significant improvements in employee performance, retention rates, knowledge management, productivity, HR management, and job satisfaction. Overall, the studies demonstrate that a holistic approach encompassing learning and development, knowledge management, HR management practices, and job satisfaction is essential for optimizing employee performance, retention, productivity, and organizational success.

Directions for future research:

1. The literature review gave a clear idea on importance of Learning and development for an organisation in order to get better performance and employee retention.
2. The studies on Learning and development are more in other countries and found fewer studies in India. Hence there is a need to conduct the studies on learning and development in Indian context.
3. Most of the studies are conducted on government, public sector organizations and banks etc and fewer studies are found on corporates specially in service industry. Hence there is a need to conduct the studies in the context of corporate sectors.

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A Study on Perception of Usefulness of Pmksy among the Paddy, Banana Growers in Tamil Nadu

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Abstract:

Adoption is a decision to make continue full use of an innovation, while adoption process is a mental process through which an individual passes from first hearing about an innovation to its final adoption. The study was 25,397 *hectares* in Erode district of Tamilnadu state during 2023-24. The multistage sampling technique was used for selection of taluk, villages and respondents. Among the total 14 Block of erode district,Ammapet, Andiyur, Chennimalai, Gobi, Bhavani, Talavadi and Sakthi were purposively selected from Erode district on the basis of maximum PADDY, BANANA, crop area. 7 blocks were selected from each selected taluk on the basis of highest number of PADDY, BANANA, growers. Thus, total 28 villages having highest number of PADDY, BANANA, growers were selected. A list of farmers who have installed micro irrigation technology on their farm was obtained from taluk, panchayat office. Ten respondents from each village were selected by using random sampling techniques making a sample of 350 respondents. The result indicated that more than two-third of the PADDY, BANANA, growers (90.00 percent) have medium level of adoption of micro irrigation technology. PADDY, BANANA, growers have low and high level of adoption of micro irrigation technology, respectively. And also observed that the variables viz., education, social participation, land holding, annual income, attitude towards Agriculture, risk orientation, economic motivation and source of information had positive and significant correlated with extent of adoption of micro irrigation technology.

Keywords: Agriculture**,** Paddy, Banana and PMKSY.

Introduction:

Highly the available irrigation water in India is applied through the conventional surface irrigation system. Poor irrigation efficiency of these systems not only reduce the anticipated outcomes from investment in the water resources sector of the country, but also create environment problems, like, lowering of water table due to over exploitation of sub surface water resources, water- logging and soil salinity, thereby adversely affecting the crop yield. Besides government efforts for promotion of micro irrigation in terms of financial assistance in form of subsidy, the adoption is very low as compare to its potential.

Rajulashanthy stated that half of the respondents felt that clogging in lateral drippers was the main constraint; Even though majority of the respondents were using good quality irrigation water, clogging is inevitable. Presence of certain salts can cause either partial (or) complete blockage of drip system. Respondents felt this as the major constraint due to lack of availability of acid for treatment, lack of knowledge about the acid treatment and iron fertilizer tank provided by some companies were not suitable for acid treatment. Nearly one-third of the respondents 30.00 per cent expressed ratdamage as a serious problem in drip irrigation system. Around 43.30 per cent of respondents indicated that damage of laterals during sugarcane harvest was yet another major constraint.

The available practical facts are comparatively limited with respect to its constraint in adoption under different farm categories and what are the interventions needed to upscale MI adoption. Keeping in view the points mentioned above, a study is undertaken with objective to find the constraints in adoption of drip irrigation for the farmers of Dharmapuri, Salem and Erode Distracts of Tamil Nadu state. The heavy rainfall in short period leads to run off capita water availability was 1544 cubic meter. The anticipated per capita water availability in 2025 will be 1401 cubic meter (167 liter/day) and 1191 cubic meter in 2050.

The demand for water increases while the supply of water was constant. Water stressed condition was observed in states like Rajasthan and Gujarat because of arid climate in that region and water scarcity in Tamil Nadu, Karnataka and

Andhra Pradesh was a consequence of poor aquifer properties in this state. The population of India in 2050 was predicted to be 1.6 billion, subsequently there will be increase in demand for water, food and energy. As per OECD (Organization for Economic Co-operation and Development) environmental outlook 2050, India would face severe water constraints by 2050. Indian farming accounts for 90 per cent water use due to fast-track ground water depletion and poor irrigation system. Irrigation has played a significant role in the food security enhancement and overall economic development of the nation. To identify and record of irrigation system about constraints in future sustainable irrigation facility provided by Tamil Nadu state.

History of PMKSY scheme:

In 2006, Micro irrigation started from centrally sponsored scheme (CSS) by Government of India (GoI). In 2010, CSS was amplified in scope and renamed as National Mission on Micro Irrigation (NMMI), which was subsequently brought under the ambit of the National Mission on Sustainable Agriculture. In 2015, NMMI was brought as a scheme under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)(4). PMKSY was approved by the Cabinet Committee on Economic Affairs (CCEA), chaired by Prime Minister Narendra Modi, on 15 July 2015, with the motto of “Per drop -More crop”. It is being implemented to expand cultivatedarea with assured irrigation, reduce wastage of water and improve water use efficiency (Press Information Bureau - 2021).

Review ofLiterature

Sivasubramanian (2003) the farmers were considered as the best indication of the functional aspects and information structure provided by the schemes. Hence in the present study, the participant farmers were contented as the respondents to study this aspect. Based upon the personal discussion with the farmers, field level extension workers, Deputy Director of Horticulture and the Staffs in Department of Horticulture, Government of Tamil Nadu, during my preliminary study, totally Eight dimensions were delineated to study the procedures and services of PMKSY scheme. Hence the experience of participant respondents was measured over the selected eight dimensions scale used to measure each of the dimension are as follows. The scoring procedure followed by Sivasubramanian (2003) was used in this study.

Narpat Singh (2013), Drip irrigation is an effective method of providing irrigation water directly into soil at the root zone of plants. The present paper attempts to determine to what extent the farmers adopted drip irrigation system. Interviewing 120 farmers face-to-face, selected through proportionate sampling technique from eight Panchyat Samities of Chittorgarh and Udaipur in Rajasthan state of India, relevant data were gathered. Empirical data revealed that of total, 35 (58.33 %) and 31 (51.67%) of farmers from Chittorgarh and Udaipur districts, respectively fell under medium adoption level regarding DIS. Farmers of both the categories (Chittorgarh and Udaipur) are needed to be educated and persuaded regarding following techniques: Use of strainer filter to control physical impurities, use of fertigation with DIS, acid treatment for cleaning the system, use of emitters per plant, use of 5 ppm chlorine to avoid algae and bacteria and removal of emitters at the time of every ploughing.

S. D. Bhingardeve (2012),The present study was studied to investigate the suitability of drip irrigation technology in sugarcane crop. The study showed that sugarcane growers were completely by adopting the distance between two ridges 25 to 30 cm (Single eye bud) in paired rows method. Sugarcane growers adopted chemical reasons and biological reasons of clogging of emitters. Majority of sugarcane growers (93.33 %) faced the constraints viz., higher initial cost for installation of drip irrigation unit followed by cracking and clogging of emitters (90.83 %), damage due to rats/rodents (81.66 %) . Mostly the sugarcane growers suggested needs to availability of drip irrigation unit in low initial cost (94.16 %). 91.66 per cent Sugarcane growers suggested the needs of technical knowledge about remedies against the clogging of emitters.

Objectives

1) To study the selected characteristics of the PADDY, BANANA growers
2) To measure the extent of adoption of micro irrigation technology in PADDY, BANANA
3) To estimate the relationship between selected characteristics of the PADDY, BANANA growers and extent of adoption of micro irrigation technology

Methodology:

The present investigation was carried out in Erode district of Tamilnadu state during 2023-24. The present study was confirmed to "Ex-Post Facto" research design as the independent variables were already operated in the study area. The multistage sampling (three stage) technique was used for selection of taluk, villages and respondents. Among the 14 Block of Erode district Gobi, Bhavani and Sakthi were purposive selected from Erode district on the basis of maximum potato crop area. Five villages were selected from each selected taluk on the basis of highest number of PADDY, BANANA growers. Thus, total 12 villages having highest number of potato growers were selected.A list of farmers who have installed micro irrigation technology on their farm was obtained from taluk panchayat office. 35 respondents from each village were selected byusing random sampling techniques making a sample of 350respondents.

Table 1 Genterwise Respondents' PMKSY 2024

Genter Wise	Frequency	Percentage
Male	215	61.42
Female	135	38.58
Total	350	100.00

The above Table -1 Shows the Gender wise Respondents distribution of PMKSY 2024on Erode Distrct,Tamilnadu. It is inferred from the survey , 215(61.42%) of respondents are Male and 135 (38.58%) of the respondents are Female. It is clearly from the above table most of the respondents are Male.

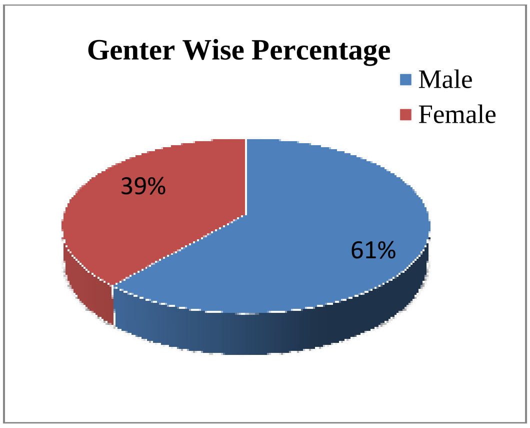


Table 2 Community wise respondents' PMKSY 2024

Community wise	Frequency	Percentage
BC	205	58.57
MBC	102	29.14
OC	30	8.57
SC/ST	13	3.72
Total	350	100.00

The above Table -2 Shows the Community wise respondents' distribution of PMKSY 2024 on Erode distrct, Tamilnadu. It is inferred from the survey , 205(58.57%) of respondents are BC,102(29.14) are MBC, 30(8.47) are OC and 13 (3.72%) of the respondents are SC/ST. It is clearly from the above table most of the respondents are BC

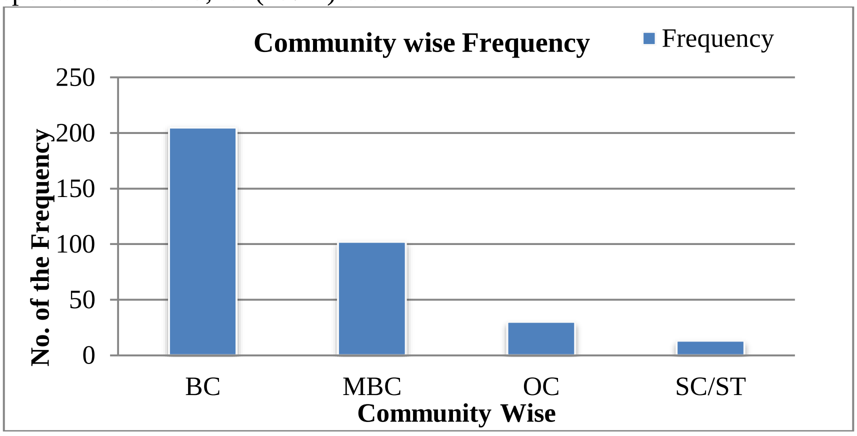


Table 3 Income wise respondents' PMKSY 2024

Income Wise	Frequency	Percentage
Below-72000	137	39.14
72000-100000	110	31.42
Above 100000	103	29.44
TOTAL	350	100.00

The above Table- 3 Shows the Income Wise RESPONDENTS distribution of PMKSY 2024 on Erode district,Tamilnadu. It is inferred from the survey, 137(39.14%) of respondents are Below-72000,110 (31.42) are 72000-100000 and 103 (29.44%) of the respondents are Above 100000. It is clearly from the above table most of the respondents are Below-72000.

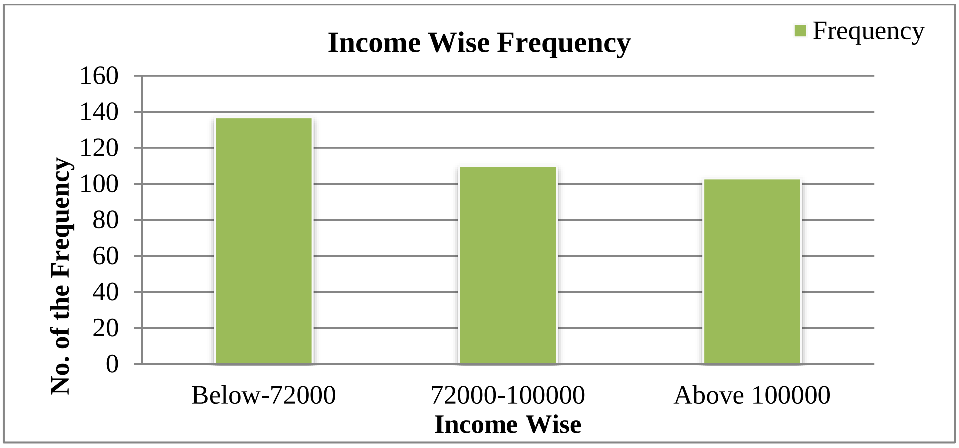


Table 4 Community land wise respondents' PMKSY 2024

Land Community wise	0-2 Land Area	2-3 Land Area	3-5 Land Area	Above Land area 5	Total
BC	45(21.95)	102(49.76)	38(18.53)	20(9.75)	205(58.57)
MBC	33(32.35)	37(36.27)	25(24.50)	7(6.86)	102(29.14)
OC	6(20.00)	13(43.34)	4(13.33)	7(23.33)	30(8.57)
SC/ST	8(61.54)	3(23.08)	2(15.38)	0 (0.0)	13(3.72)
Total	92(26.28)	155(44.28)	69(19.72)	34(9.72)	350(100.00)

The above Table -4 Shows the Land Community wise respondents distribution of PMKSY 2024 on Erode district, Tamilnadu. It is inferred from the survey, 205(58.57%) of respondents are BC Community, 102 (29.14) of respondents are MBC Community, 30(8.57)of respondents are OC Communityand 13(3.72) of the respondents are SC/STCommunity. It is clearly from the above table most of the respondents are 205 (58.57) BC & 102 (29.14) MBC Community majority of LandCommunity wise.

Anova

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	5718.25	3	1906.083	7.053	0.009	3.862
Columns	1945.25	3	648.4167	2.399	0.135	3.862
Error	2432.25	9	270.25			
Total	10095.75	15				

The two-way Anova model is applied for further discussion. At one point the computed anova value is 7.053, which is less than p value at 5% level of significance. Hence, there is significance difference between land community wise respondents. At another point, the computed Anova value 2.399, which is greater than p value at 5% level of significance. Hence variation among the community wise summarized distribution of respondents in land areas is statistically identified as significance.

Table 5 TNEB Community wise respondents' PMKSY 2023

TNEB Service Wise	Yes	No	Total
BC	187(91.21)	18(8.79)	205(58.57)
MBC	80(78.43)	22(21.57)	102(29.14)
OC	28(93.33)	2(6.67)	30(8.57)
SC/ST	9(69.23)	4(30.77)	13(3.72)
Total	304(86.85)	46(13.15)	350(100.00)

The above Table -5 Shows the TNEB Community wise respondents distribution of PMKSY 2024 on Erode district,Tamilnadu. It is inferred from the survey , 304(86.85%) of respondents are YES and 46 (13.15%) of the respondents are NO. It is clearly from the above table most of the respondents are 187 (91.21) BC & 80 (78.43) MBC Community majority of TNEB Community wise.

Chi-Square Tests			
TNEB Service Wise	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.000[a]	7	.333
Likelihood Ratio	11.090	7	.135
Linear-by-Linear Association	2.099	1	.147
N of Valid Cases	8		
a. 16 cells (100.0%) have expected count less than 5. The minimum expected count is .50.			

The Chi-Square test is applied for further discussion. By analyzing the TNEB Service wise respondents, we used Chi-Square test which shows that there is significant relationship between the TNEB Service wise summarized distributions of respondents. The Chi-Square value 8.000 at 95% confidence which is greater than p value 5% level of significance. Hence, There is a no significant association between TNEB Service wise summarized distributions of respondents.

Table 6 PM-Kisan Scheme wise respondents' PMKSY 2024

Pm-Kisan SchemeWise	Yes	No	Total
BC	200(97.56)	5(2.44)	205(58.57)
MBC	95(93.13)	7(6.87)	102(29.14)
OC	27(90.00)	3(10.00)	30(8.57)
SC/ST	13(100.00)	0(0.00)	13(3.72
Total	335(95.71)	15(4.29)	350(100.00)

The above Table -7 Shows the Pm-Kisan Scheme Wise respondents distribution of PMKSY 2024 on Erode district,Tamilnadu. It is inferred from the survey , 335(95.71%) of respondents are YES and 15 (4.29%) of the respondents are NO. It is clearly from the above table most of the respondents are 200(97.56) BC & 95(93.13)MBC Community Majority of Pm-Kisan SchemeWise.

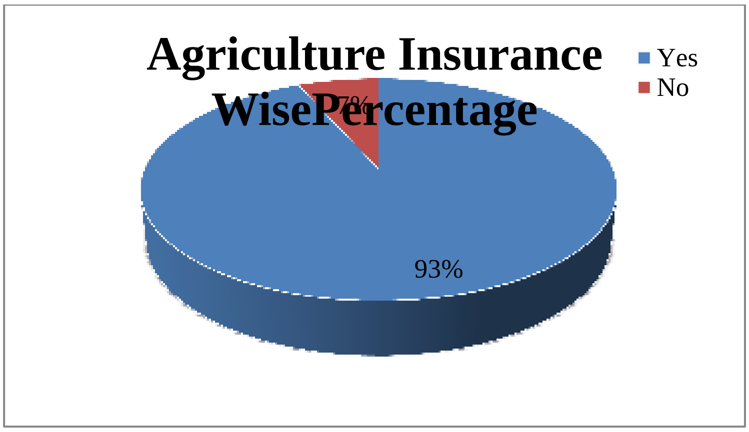
Chi-Square Tests			
Pm-Kisan SchemeWise	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.000[a]	7	.333
Likelihood Ratio	11.090	7	.135
Linear-by-Linear Association	2.583	1	.108
N of Valid Cases	8		
a. 16 cells (100.0%) have expected count less than 5. The minimum expected count is .50.			

The Chi-Square test is applied for further discussion. By analyzing the Pm-Kisan SchemeWise respondents, we used Chi-Square test which shows that there is significant relationship between the Pm-Kisan SchemeWise summarized distributions of respondents. The Chi-Square value 8.000 at 95% confidence which is greater than p value 5% level of significance. Hence, Ther is a no significant association between Pm-Kisan SchemeWise summarized distributions of respondents.

Table 7Agriculture Insurance wise respondents' PMKSY 2024

Agriculture Insurance Wise	Frequency	Percentage
Yes	327	93.43
No	23	6.57
Total	350	100.00

The above Table -7 Shows the Agriculture Insurance wise respondents distribution of PMKSY 2024 on Erode district,Tamilnadu. It is inferred from the survey , 327(93.43%) of respondents are YES and 23 (6.57%) of the respondents are NO. It is clearly from the above table most of the respondents are YES.



Conclusion:

In light of the above findings, following conclusions can be drawn. Due to that the research area having high infiltration rate of soil, dry land area, low moisture holding capacity, high temperature and also risk orientation, economic motivation, favourable attitude towards Micro irrigation technology and for saving the water losses in field so a large majority of the PADDY, BANANA growers had medium to high level of adoption of micro irrigation technology. It was observed that the variables viz., education, social participation, land holding, annual income, attitude towards Agriculture, risk orientation, economic motivation and source of information had positive and significant correlated with extent of adoption of micro irrigation technology. Age had positive and not significant correlated with extent of adoption of micro irrigation technology. Further it can be concluded that among all the constrains, financial constraints were the most important constraints in adoption of drip irrigation system by PMKSY beneficiaries. Hence, the following implication are drawn so as for promote drip irrigation technology among the farmers.

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Production of Cellulolytic and Pectinolytic Enzymes by Alternaria Alternata (Fries) Keissler, In Vitro, Causing Leaf Spot of Cotton.

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Abstract:

Generally, degradation of cell wall components is essential for the invasion of the host tissues by the phytopathogenic microorganisms. The pathogenic fungi produces cell wall degrading enzymes in vitro during growth upon which infection depends. So, for the study of the production of pectolytic and cellulolytic enzymes in vitro, the pathogen Alternaria alternata (Fries), keissler was grown in 150 ml Erlenmeyer's flasks containing 50 ml. sterilized Richard's medium by transferring 0.50 mm diameter mycelial mat discs from 10 days old culture. The enzymatic activity of cellulase (CX), Polymethyl galacturonase (PMG) and polygalacturonase (PG) was expressed in terms of percentage loss of viscosity of the substrates over control after giving a suitable reaction time. The pathogen produced cellulase (Cx) enzyme in culture filterates of medium with and without carboxymethyl cellulose (CMC) but its production and activity was comparatively much more in the medium supplemented with (CMC) as compared to that devoid of it. The study with polygalacturonase (PG) enzymes in the medium supplemented with sodium polypectate revealed that the higher values of percent loss in viscosity were recorded in comparison to values recorded at the same time of interval in the medium without sodium polypectate. Observation with (PMG) enzyme revealed that its production was more in the medium supplemented with citrus pectin as compared to the medium without pectin.

Keywords: Cellulolytic, Phytopathogenic, Alternaria alternata, viscosity.

Introduction:

Cotton (Gossypium L) is one of the most important commercial crop playing a key role in economic and social affairs of the world. It is mainly cultivated as a fibre as well as oil yielding cash crop. It provides the basic raw material (cotton fibre) to cotton textile industry. Cotton is a major source of income and employment for millions of farmers in India. Due to its economic importance in India, it is also termed as "White – Gold". The leftover cotton seed cake, comprising 85% of the seed is a valuable protein–rich feed ingredient for liverstock and poultry. But it is subjected to attack by a number of diseases which are a great menace in augmenting its production and it appears to hold good for leaf spot of cotton caused by Alternaria alternata, which is one of the important diseases of cotton. It has been reported to cause considerable losses to this crop during the recent years. So the given investigation was done in order to analyse the different enzymes produced by the pathogen and their activity to find out variations in their production.

Materials and Methods:

For the study of the production of pectolytic and cellulolytic enzymes in vitro the pathogen, Alternaria alternata (Fries.) 'Keissler, was grown in 150.0 ml. Erlenmeyer's flasks containing 50.0 ml. sterilized Richard's medium by transferring 0.50 mm. diameter mycelial mat dises from 10 days old culture. The medium was adjusted at pH 6.0 before sterilization. After inoculation the flasks were incubated at 25 ± 1°C for 15 days. The inoculated pots were shaken in order to make a uniform suspension after, which the fungal growth was filtered through Whatman's filter paper No. 42 twice and the filtrate, was allowed to collect. The filtrate was finally centrifuged at 4000 rpm. for 20 minutes and clear supernatant was collected in sterilized airtight sample bottles, while the sediment was rejected. Two ml. of toluene was then added to cover the upper surface of enzyme preparations to provide aseptic conditions. These bottles, were then stored at 5°C in a refrigerator for use of them as crude enzyme sample for enzyme assay. The enzyme assay was carried out at 25 ± 1°C in water bath. The crude enzyme preparations thus obtained were assayed for the production and activity of the hydrolytic enzymes of both the pectolytic and cellulolytic nature at 25 ± 1°C in a water bath.

(i) Cellulase (CX) assay: Cellulase (CX) activity was determined by Viscometric method by measuring loss in viscosity by Carboxymethyl cellulose (CMC) solution followed by Muse et. al. (1972). 7.0 ml. of 0.6% Carboxy methyl cellulose (CMC) buffered at pH. 6.0, was used as substrate for enzyme action. Two ml of crude enzyme sample was added to 7.0 ml. of substrate in 0.05 m. aqueous sodium citrate solution at 7.0 pH placed in Ostwald Fenske Viscometer at 30°C in a water bath according to the technique suggested by Hamcock et al. (1964). 10 ml. of enzyme solution was added to this and mixed jointly by drawing air rapidly through the large arm of Viscometer by suction. The time of efflux was recorded immediately at zero hour. Subsequently the readings of efflux time, were recorded for incubation period for 0, 30, 60, 90, 120 and 150 minutes in each separately at 25 ± 1°C. Controls were used with distilled water for comparison. The pH level was adjusted with Mellavain's Citrate Buffer (MC Clavain, 1921).

The reduction in viscosity was expressed as per centage loss in viscosity over water (control) as calculated by the formula as given below:

Percentage Loss in Viscosity = $\frac{To-T1}{To-Tw} \times \mathbf{100}$

where,

To=Flow time of reaction mixture at zero hour.

T1=Flow time of reaction mixture at a particular interval.

Tw=Flow time of distilled water.

(ii) Polygalacturonase (PG) assay:

It was determined by the same technique as described in Cellulase assay except that 3.0 ml. of sodium polypectate was used in the substrate in place of CMC bufferred at pH 4.60

(iii) Polymethylgalacturonase (PMG) assay:

It was determined by the same technique as described in Cellulase assay except that 1.20 per cent Citrus pectin was used in the substrate in place of CMC and buffered at pH 6.0.

Result and Discussion:

1. Cellulase (Cx) Assay: The production and activity of Cellulase (Cx) produced by the culture was determined by Viscometric method. The result of production and activity of Cellulase (Cx) enzymes secreted by the pathogen, Alternaria alternata (Fries.) Keissler, are given in table A and Figures 1 and 2.

TABLE-A Production and Activity of Cellulase (CX) enzyme by Alternaria alternata (Fries.), Keissler in culture medium in Vitro., causing leaf spot of Cotton (Gossypium hirsutum, L.)

Treatments	Percent Loss of Viscosity at time intervals (minutes)				
	30	60	90	120	150
With carboxymethyl cellulose(CMC)	25.60	40.20	46.41	55.38	55.38
Without Carboxymethyl cellulose(CMC)	19.65	29.40	38.40	40.35	40.35

From the data given in table A and corresponding figures 1 and 2, exihibited that production and activity of Cellulase (Cx) enzyme was greatly influenced by the medium used. The pathogen produced Cellulase (Cx) enzyme in culture filterates of medium with and without Carboxymethyl cellulose (CMC), but its production and activity was comparatively much more in the medium supplemented with Carboxymethyl cellulase (CMC) as compared to that devoid of it. The per cent loss in viscosity increased with time and became constant after120 minutes in the medium with and without Carboxymethyl cellulase (CMC). Highest activity of Cellulase (Cx) was observed after 120 minutes of incubation at 55.38 per cent loss of viscosity of enzymes sample with substrate. The medium, which was without substrate produced less amount of enzyme as 40.35 per cent loss of viscosity in the same period of incubation.

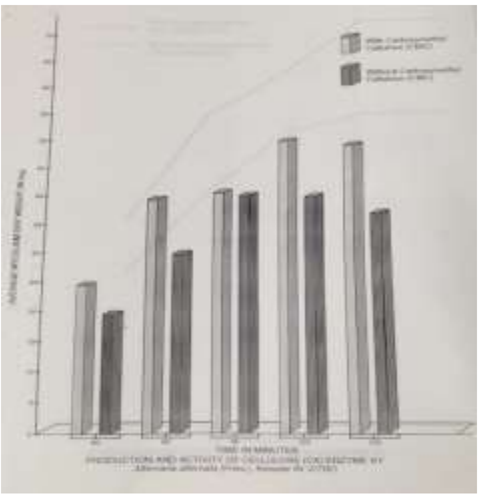

Figure-1

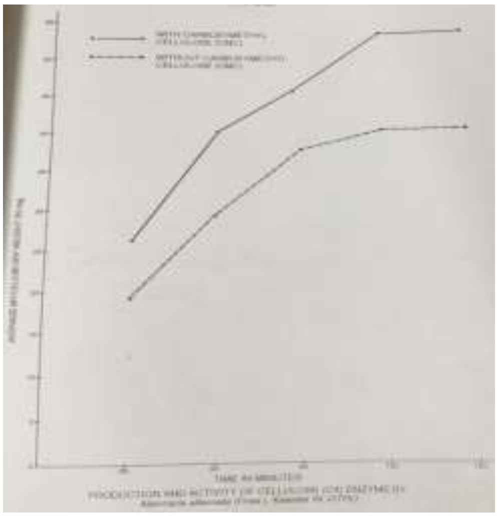

Figure-2

Polygalacturonase (Pg): The production and activity of Polygalacturonase (PG) by the Pathogen Alternaria alternata, was determined by Viscometric method and the results are given in Table B and Figures 3 and 4.

Table-B

Treatments	Percent Loss of Viscosity at time intervals(minutes)				
	30	60	90	120	150
With Sodium Polypectate	20.35	26.20	51.30	54.38	54.38
Without Sodium Polypectate	18.20	23.64	28.17	39.20	39.20

The results obtained in Table B and its corresponding Figures 3 and 4, revealed that the pathogen, Alternaria alternata (Fries.), Keissler, produced more amount of Polygalacturonase (PG) enzymes in the medium supplemented with sodium polypectate. In the medium with sodium polypectate the higher values of per cent loss in viscosity, were recorded in comparison to values recorded at the same time of interval in the medium without sodium polypectate. The per cent loss in viscosity increased gradually with the increase in time and become constant after 120 minutes of reaction in the medium with or without sodium polypectate. Highest activity of Polygalacturonase (PG) enzyme, was observed after 120 minutes of incubation as 54.38 per cent of loss viscosity of enzyme sample with substrate. The medium, which was without substrate produced lesser amount of enzyme as 39.20 per cent loss of viscosity of enzyme sample with substrate in the same period of incubation.

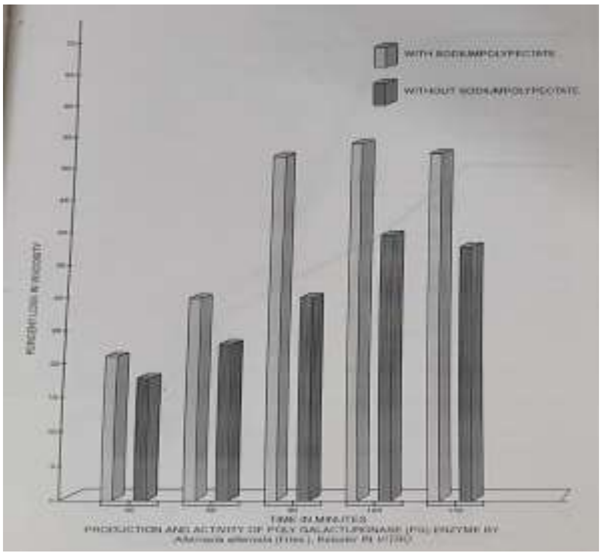

Fig-3

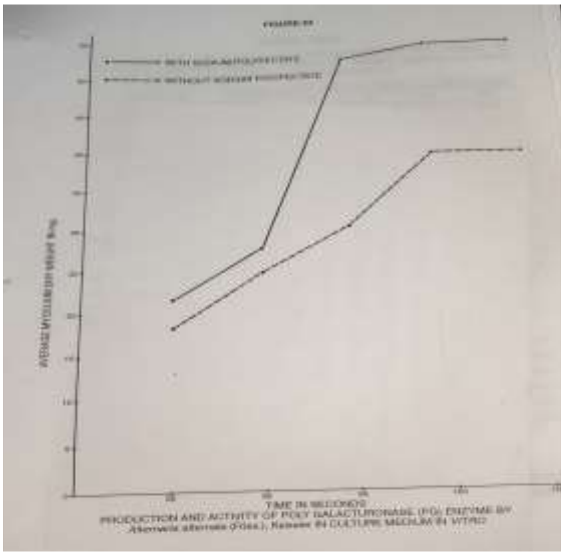

Fig -4

3. Polymethyl Galacturonase (Pmg):

The acivity and production of Polymethylgalacturonase (PMG) enzyme produced by the pathogen, Alternaria aternata (Fries.), Keissler, was determined and the technique adopted was the same as in case of Polygalacturonase (PG) assay except Citrus pectin was taken in the place of sodiumpolypectate. The results in loss of viscosity over control at different time periods recorded are given in the table C and corresponding Figures 5 and 6

Treatments	Percent Loss of Viscosity at time intervals (minutes				
	30	60	90	120	150
With Citrus pectin	25.38	28.83	50.29	61.29	61.29
Without Citrus pectin	22.34	25.30	41.65	42.80	42.80

From the data presented in table C and its corresponding Figures 5 and 6, it is obvious that the pathogen, Alternaria alternata (Fries.), Keissler, produced polymethylgalacturonase (PMG) enzyme in the medium supplemented with and without pectin. The production of polymethylgalacturonase

(PMG) was more in the medium supplemented with pectin as compared to the medium without pectin. The pathogen grown in the medium substituted with or without pectin increased with the increase in time intervals upto 120 minutes of standing and after that became constant. Further increase in the time did not increased the enzyme activity, which was constant after 120 minutes. Hightest activity of Polymethylgalacturonase (PMG) enzyme was observed after 120 minutes of incubation as 61.29 per cent loss of viscosity of enzyme sample with substrate. The medium which was without substrate lesser amount of enzyme was observed as 42.80 per cent loss of viscosity of enzyme sample with substrate in the same period of incubation.

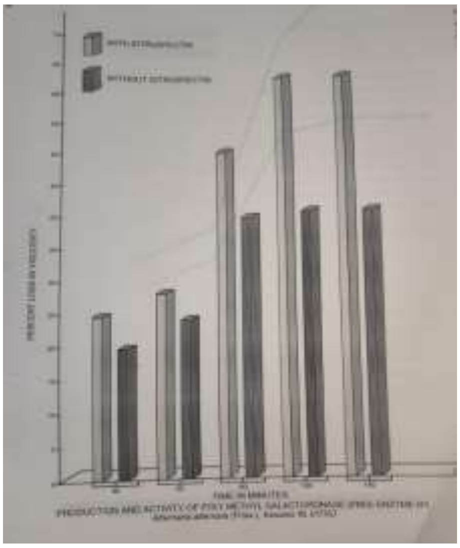

Fig -5

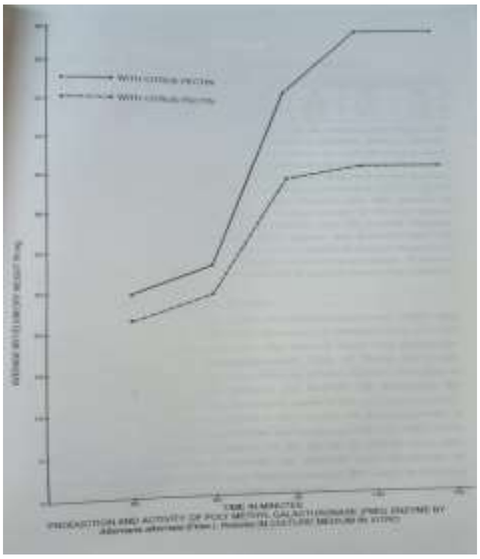

Fig -6

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Education and Social Welfare

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Abstract:

Education Is An Ongoing Social Process In Any Society By Which Man's Innate Powers Are Developed, His Knowledge And Skills Are Increased And His Behaviour Is Changed. In This Way He Is Made A Civilized, Cultured And Capable Citizen. Through This, Both The Individual And The Society Develop Continuously. Education Plays An Important Role In Promoting Social Welfare. Education Is Not Only A Knowledge Provider But Also Acts As A Guide, Role Model And Catalyst For Positive Change In The Society. This Paper Presents That Both Education And Social Welfare Are Helpful In The Development Of The Nation. Social Welfare Is Possible Only Through Education Because It Changes The Level Of Our Thinking And Understanding And Develops The Spirit Of 'Vasundhara Kutumb' By Leaving Our Individualistic Tendencies.

Keywords:- Social Welfare, Education, Nation, Level, Guidance, Positive Change.

Introduction:-

In India, Human Society Has Been Accumulating Knowledge Since Ancient Times. Every New Generation Receives Some Knowledge From The Old Generation Through Social Heritage. Through Which Humans Have Created Their Social, Spiritual And Cultural Nature. It Is Education That Has Raised Humans Above The Level Of Animals And Made Them Superior Beings.

The Chinese Saint Confucius Said That "Ignorance Is Like A Night With Neither Moon Nor Stars". The Purpose Of Education Is To Remove The Darkness Of The Dark Night Of Ignorance By Attaining The Light Of Knowledge. In The Absence Of Education, There Is Lack Of Both Knowledge And Science.

In Primitive Societies, Education Was Provided Informally, But In The Modern Era, Formal Education Is Provided By Educational Institutions Like Schools, Colleges, Universities Etc., Which Creates A Strong And Superior Society. Mahatma Gandhi Had Said That Education Plays The Same Role In The Welfare Of A Society As Eyes Do In The Body. Only A Great Society Can Work To Bring All The

Individuals To A Higher Level And When All The Individuals Of The Society Reach That Level Then It Is The Best Example Of Social Welfare, In Which Education Plays The Most Important Role Because It Does Not Only Build The Personality Of An Individual But Helps In Building The Personality Of Many Individuals.

Objectives of Education:-

1) Education Is A Powerful Instrument In Establishing Social Individualism. Education Develops Respect For Social Norms As Well As Values And Develops Knowledge And Understanding In The Individual. Education Makes Him A Responsible And Influential Person In The Society.
2) It Helps In Bringing Changes In The Society In The Right Direction.
3) The Education System Works To Give Impetus To Various Institutions And Working Systems Of The Society.
4) Educational Institutions Like Schools And Colleges Provide Opportunities For The Fulfilment Of Human Needs And Transfer To Others The Desirable Characteristics Of Their Culture In The Form Of Values And Norms Etc.
5) Education Plays An Important Role In Social Welfare Through Which Equal Respect Is Given To All Sections Of People.

Inter Relationship between Education And Social Welfare:-

In Every Society, Due To Ignorance, Social Evils Like Social Backwardness, Tendency Of Discrimination On Caste, Colour And Gender Etc. Arise. This Hinders The Progress And Development Of Any Society. Education Is Important For Social Development And Economic Development As Well Education Is The Main Means Of Social Welfare. Education Makes Our Thinking Higher, Which Removes The Evils Prevalent In The Society And Develops The Feeling Of Social Welfare.

India's Position In The Education Sector:- According To The Education Report Of The

Organization For Economic Co-Operation And Development (Oecd), Only About 39% Of The Population In The World Is Able To Study Up To The University Or College Level. Talking About India, Only 20.4% Of The Population Is Able To Study At The University Or College Or Professional Level. Is Able To Complete The Course. You Can Get An Idea From This Report About The Condition Of India's Education System. However, The Government Of India Has Also Announced To Allocate More Budget For Education Than Last Year. Finance Minister Nirmala Sitaraman Has Announced ₹ 1,04,278 Crore For Education For The Financial Year 2022–23. Earlier This Figure Was 27%, Now It Has Increased To 48%.

The Education Sector In India Is Currently Passing Through A Rapid Growth Phase. Not Only The Government But Also Significant Private Individuals As Well Are Actively Involved In Promoting It. Measures To Enhance The Quality Of Education In India Are Being Considere-D By The Government As Well.

A Study Has Shown That The Real Reason For The Economic Development Of Any Country Is The Education And Social Welfare Of Its People. India Has Also Shown Rapid Economic Growth In The Last Three Decades.

The Graph Of How Many Countries Has Increased In Last Two Decades? According To Oecd's Education Report, Canada, Japan And Luxembourg Are The Top Three Countries In The World With The Highest Number Of Educated People. The Population Here Aged Between 25 To 34 Years Is The Most Educated. According To The Data, There Has Been An Increase Of About 20 Percent In Tertiary Education Here Between 2000 And 2021. Earlier This Figure Was 27 Percent, Now It Has Increased To 48 Percent. Countries Like South Korea, Israel, Finland And Ireland Are Also Included In This List.

Result And Discussions**:-** The Indian Education System Is One Of The Largest Systems In The World With More Than 1.5 Million Schools And More Than 260 Million Students. Free Fundamental Education For Children Aged 6 To 14 Years Is Provided In The Country Under The Right To Education Act In India. The Education System In India Is Divided Into Many Levels Of Primary, Secondary And Tertiary Education, But Today's Education System Is Not Able To Contribute As Much To Social Welfare As It Should. Education Has Reached A Low Level Today Because There Are Many Challenges In Front Of Education.

Challenges And Issues In Education In India:-India Is Known For Its Educational Brilliance. However, The Indian Education System Is Criticized For Its Failure To Create Required Employability For Its Students In Relation To The Industrial Requirements. Hence, There Are A Lot Of Challenges Being Faced By The Indian Education Sector That Requires Immediate Attention.

Teacher-Student Ratio:

According To The Unesco's State Of The Education Report For India 2021, There Is 11.16 Lakh Teaching Positions That Are Vacant In Schools. It Clearly Shows That There Is A Shortage Of Teachers In Schools. Besides This, Teachers Are Burdened With A Lot Of Non-Academic Workloads Which Ultimately Results In A Divergence Of Their Focus From Teaching The Students. According To A Study Done By The National Institute Of Education Planning And Administration (Niepa), Teachers Devote Only Around 19% Of Their Time To Teaching While The Rest Of Their Time Is Spent In Non-Teaching Administrative Work.

Apart From It, When It Comes To The Government Sector, The Government Teachers Enjoy A Lifetime Guarantee Of Job Security Irrespective Of Their Performance Which Results In No Accountability From Their Side.

Allotment Of Funds:

Funds Are Provided To The Schools By The Central Government To The State Government. Every National Education Policy Since 1968 Has Said That India Needs To Spend 6% Of Its Gross Domestic Product (Gdp) On Education. The 2019-20 Economic Survey Showed That In 2019-20, 52 Years Since That Recommendation, India Spent Only 3.1% Of Its Gdp On Education. This Is The Data Collected From A Website. In Addition, Many Corrupt Mediators Are There In Between Who Keep The Money Aside For Themselves And Only A Small Portion Of The Entire Fund Is

Provided To The Schools. This Hampers The Functioning Of The Schools In A Great Way. The Requirements Of The Schools Like Libraries, Labs, And Other Infrastructural Facilities Cannot Be Managed Appropriately By The Schools Due To The Lack Of Availability Of Money.

Expensive Higher Education:

According To A Survey, There Has Been A 169% Rise In Inflation In Primary And Secondary Education From 2005 To 2011. Specialized Institutions And Colleges Are Expensive In India. Higher Education For Some Courses Is Beyond The Reach Of The Common Man. For Example, Iim Charges Rs. 2 Lakh Per Semester For Mba Classes. Privatization Of Advanced Education Into The Hands Of Greedy Entrepreneurs Resulted In High Drop Rates In The Field Of Unaffordable Higher Education.

Lack Of Infrastructure:

Lack Of Infrastructural Facilities Like Poor Hygiene, Lack Of Toilets, Drinking Water Facilities, Electricity, Playground, Etc. Is One Of The Major Loopholes Of The Education Sector. A Survey Was Conducted In 2010 Whereby Approximately 95.2% Of Schools Are Not Still

Under The Complete Set Of Rte Infrastructure Indicators. According To The 2016 Annual Survey Of Education Report, Only 68.7%Schools Had Useable Toilet Facilities And Around 3.5% Of Schools In India Had No Toilet Facilities.

High-Dropout Rates:

In The Primary And Secondary Levels, Dropout Rates Are Very High. Students Between The Age Group Of 6- 14 Years Leave The School Before Completion Of Their Education. According To The Aser Report 2012, Enrolment In The 6-14 Years Of Age Is Over 96% In Rural India But Dropout Rates Are Very High. Various Factors Responsible For Dropout Rates Are As Follows- Poverty, Lack Of Toilets, Long Distance To School, Child Marriages, Patriarchal Mind Set, And Cultural Factors.

Neglect Of Regional Languages:

In 2017-18, 14% Of Students Who Were Enrolled In Private Schools In India's Rural Areas And 19.3% In Urban Areas Selected A Private School With The English Language As The Medium Of Instruction. English Is The Main Medium Of Language In Education. Standardized Publications In Indian Languages Are Also Not Available. As A Result, Students Who Are From Rural Backgrounds, Government Schools, And Those Who Are Not Well Versed In The English Language Face A Lot Of Problems In Gaining Knowledge And Understanding The Concepts.

Old Curriculum of Study and Lack Of Practical Knowledge:

Old Education System In India Was Mainly Based On Bookish Learning But Nowadays With The Use Of The Internet And Experiential Learning Methods, A Lot Has Been Changed. The Use Of The Abacus And Vedic Maths Has Added New Dimensions To Mathematics As A Subject. New Doors Of Learning And Interesting Methods Of Study Came Into Existence. Similarly, The Old Curriculum Of Education Mainly Focuses On Cramming Up The Theories And Concepts. No Exposure Is Being Provided To The Students In The Practical Domain. Parents And Teachers Also Focus On Guiding The Students For Obtaining High Marks In The Subjects Rather Than Practical Knowledge And Usability Of The Concepts. As A Result, Education Has Become A Rat Race. But, Due To The Introduction Of The National Policy On Education 2020 Things Have Changed. India Had Three Educational Policies So Far. The First Was In The Year 1968, The Second Was In The Year 1986 And The Third One Is In The Year 2020. The Main Purpose Of The National Policy On Education 1986 Was To Include The Disadvantaged Groups By Providing Them Equal Opportunities In The Field Of Education. But The National Policy On Education 2020 Is More Holistic In Nature. It Aims At Skill-Based Learning And Providing Employability To The Students. All The Loopholes Of The Previous Educational Policies Are Being Catered By The New Educational Policy 2020.

Problem Of Brain Drain:

Students If They Don't Get Opportunities And Deserving Posts In The Country, They Travel To Another Country In Search Of Employment Opportunities. This Is Known As Brain Drain. Because Of It, We Lose Talented People Of Our Country Who Could Have Helped In The Development Of The Education Sector Or Must Have Contributed Towards The Progress Of Our Country. It Was Reported During 1996-2015 That More Than Half Of The Toppers Of Class 10^{th} And 12^{th} Had Migrated And Were Studying Or Employed Overseas, Mostly In The Us. One Of The Initiatives Taken By The Indian Government In This Regard Is The National Skill Development Mission Which Aims To Train Approximately 400 Million People By 2022 In India But It's Not Enough To Stop The Movement Entirely.

Indian Education System :

Problems & Solutions:- More Importance Should Be Given To The Primary And Secondary Education Of A Child. Our Marking System Needs To Be Changed By The Creativity Of The Students. It Should Not Be Based On Cramming.

Indian Government Should Spend More On Building The Infrastructure Of Schools And Teachers' Training.

Appropriate Measures Need To Be Taken Up By The Government For Providing Quality Education That Is Affordable For All. Like Under National Education Policy 2022, The Students Are Free To Choose The Language According To Their Own Interests. In The Education Expenditure, From The Year 1952 To 2014, The Total Gdp Percentage Increased From 0.64 To 4.13.

Data & Methodology:- To Match The Current Education And Social Welfare, The Result Based Research Method Was Used And It Was Made Clear That Social Welfare Can Be Promoted By Adopting The Result Based Method. In This, Different Countries Were Compared Through Comparative And Experimental Method And Many Areas Of Education Can Be Improved By Using Experimental Method.

Conclusion:-

India, The Country With The Highest Youth Population In The World, Is Working To Test The Quality Of The Education System And Its Preparation For New Experiments And Is Also Trying To Test Itself On The Standards Of Quality Education Being Set At The International Level. One Of The Basic Objectives Of The Present Education System Is To Refine The Element Of Nationalism And To Introduce The Future Generation Of India To Its Rich Heritage As Well As To Inculcate A Sense Of Belonging. Creation Of New Dimensions And New Outlook Of Life Is Actually Necessary For This Generation.

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Impact of Emerging Trends in Present Teaching and Learning

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Abstract:

The integration of technology has paved a new and revolutionary way to our perceptions of different life issues and has brought unparalleled changes to our thought processes and responses as well. Technology has encroached upon almost every sphere of our life. The emerging innovations and trends have very smoothly taken over the traditional methodology of information dissemination and communicative proceedings while putting weightage on inculcation of human values and ethics. The intervention of advanced technology has helped us a lot to accomplish in the field of general awareness, acquisition of various skills and knowledge of many fields at different levels and teaching learning methods. The present method of teaching and student learning has changed to a large extent due to the various advancements in technology in terms of online lectures, audio lectures, video conferencing and many educational apps and now it has started turning into a tradition to become an inseparable part of our life. It is a fact that we are surrounded by an abundance of available information and the need of the hour is to get it filtered or channelize it before it is disseminated to the learner.

Keywords: technology, revolutionary, learning, dissemination, information

Introduction:

"Ensuring quality higher education is one of the most valuable present that we can give to the future generations". Ron Lewis Education leads to learning and enables us to enter into the world of knowledge from the world of ignorance. This learning is relatively a permanent change in behaviour that occurs as a result of experience and reinforced practice. Education transforms an ignorant individual into a civilised human being. Teaching means guiding, mentoring, counselling, facilitating, enabling and showing the path to the learner to achieve the goal of obtaining knowledge with modified behaviour. Education and teaching is closely interlinked with the information and the methods to provide it. Earlier the provision of information via formal and informal channels of communication was in the traditional form. That conventional style and mode of education was to enable the learners not only to earn their bread and butter but also to instil human values and ethics to make them better human beings. The knowledge or information was disseminated to the students as per a designed curriculum with the help of short stories , fables , poems or folk songs keeping in mind the role of values and ethics in life and career ahead.

In present scenario, education in general has been greatly influenced by the availability of advanced technical aids. The last few decades have witnessed technology growing at a much faster pace than ever before. Technology, in the sphere of teaching and learning, has minimised the distances and one is able to instantly communicate with others anytime and anywhere in the world. In the field of information technology, anybody can access any information within a few seconds owing to the internet and satellite communication. The current generation is very prone and receptive to this kind of communication which has led to a great shift in the ways and means of providing education. The physical classroom setting has shifted to a virtual classroom setting where technology is the linking pin between a teacher and a student. The students understand the concepts easily when provided with the help of latest teaching technical aids like power-point slides, video lectures, and social media communication etc

Objectives of Study:

1) To study the developments of emerging trends in teaching and learning.
2) To know its contribution and positive impact
3) To know its negative impact
4) To suggest some recommendations

Evolvements in teaching and learning:

Earlier the learners were supposed to go to school or college (called Gurukuls) to learn and acquire knowledge. They were to obey the rules and regulations and spend their time while listening to their Gurus or teachers about the various subjects. They were controlled as well as guided by their teachers or gurus where the communication was generally one way. Then slowly and gradually, the dominance and control of teacher was subdued with the introduction of physical classroom teaching where the students also started playing active roles. The communication started becoming two way where the student and the teacher both played a role in discussing and analysing information to reach to a more productive approach of teaching and learning. Here, the technology started playing its role in the form of overhead projectors and transparent sheets. Then, with the advent and approach of information technology in the 90s in India, the system of education also transformed and again the role of the teacher changed. Now it is observed that there is a stronger communicative bond between the students and the teacher. And the teacher's role is to mentor and guide the students.

Earlier the curriculum was designed from the point of view of what the teacher thought was required for the students but now the education system has shifted its focus to the knowledge seekers and has become student centric and curriculum is now designed catering to the needs of the students. The industry or future workplace of a student was considered as a separate entity and its role was supposed to begin after the completion of the student's education. But now the role of industry has been considered important and therefore, the relationship of an industry and the institute begins even when the student is still studying in the college (industry-institute partnership). This has helped the industry to be able to communicate their needs to the education providers and this way the curriculum is now designed and developed according to the requirements of the industry. Ultimately, the goal is to develop the students with more practical knowledge and technical savvy in this digital world.

Earlier the teacher was playing the pivotal role in education system in terms of teaching students the life skills inculcating values in them to enable them to face the challenges boldly and positively in their lives. They also contributed in building harmonious and respectful relationship between teacher and student. As far as teaching is concerned, it has also seen a paradigm shift in last few years. The teacher's role was that of the instructor and guide of the students. Slowly and gradually, the education system changed in terms of two way communication and now the role of the teacher has changed from a coach to a facilitator and the students themselves take the responsibility of seeking the knowledge. This whole system also saw a great change in the use of teaching-aids in classroom. The use of teaching aids for teaching and learning process has always been in tradition because it is believed that we remember 50% of what we SEE and HEAR. The non-projected teaching aids are the tools that teachers use them in the classroom such as flash cards, flip charts, maps, charts, graphs, puppets, posters, blackboard, bulletin boards, flannel boards, globes, models, objects, cartoons, field trips, radio, tape recorder, demonstrations, dramatics, experimentation etc. to help the students to improve their reading and other skills to reinforce a skill to relieve them from anxiety or boredom and make the learning process interesting. With the passage of time, projected teaching aids such as sound films, film strips, opaque projector, and OHP (over head projector) and television came into vogue for the purpose of desired teaching learning objective. And with the introduction of ICT, the teaching aids changed to Computers, Power-Point slides and further enhanced with new media such as video conferencing, video lectures, mobiles, smart phones, audio clips including the use of DVD clips etc.

Contribution of Technology: At present, we cannot imagine our lives without technical aids because the contribution of technology in our lives is visible everywhere as described below :

1.The learning growth of the students as well as the professional growth of teachers are positively and eventually affected in constructive manner with the integration of educational technology in the classroom.

2.Technology has made teaching and learning easier, interesting and also cooperative for both the students and the teachers.

3.The usage of technical teaching aids encourages and motivates the learners to learn, increases their learning efficiency and also improves their performance.

4. Various educational applications on smart phone are used for the dissemination of knowledge at a faster pace thus saving the students' enough time.

5. The mobile apps have benefitted both the students as well as the service providers as they receive every type of required valuable information.

6. Constructive changes can be seen in the teaching and learning process with the educational apps as the learners' can learn at their own pace and convenience.

7. With the help of various educational apps, the organisations can keep their students updated regularly and contribute in making progress in their career.

8. It has also provided a powerful and time saving medium of communication in the form of providing notifications and alerts to the students as changing the schedule of batch or exam, special session, mock exam, guest lecture, information regarding online exams etc.

9. It has contributed in making better relations with the students and among the students.

10. It has facilitated the teachers to respond to the various queries via apps to maintain the transparency and become more trustworthy.

11.Technology has helped the learners to connect easily to any subject expert of any institute of national or international repute to find out the solutions to their problems at anytime and anywhere. They can listen to and learn from the quality video lectures by eminent professors of

IITs, IIMs or NITs which is otherwise not possible in the institutions located in small cities and villages.

12. Many free online educational courses are also available via different programs viz. MOOC, NPTEL, SWAYAM, MOODLE etc. These are shared worldwide where unlimited number of learners and teachers can access to experience the world class education. The various files and documents like PPT, PDF, doc. file, excel sheet, audio file , video file etc. can be shared with internet based resources.

13. Google Forms are also created for the purpose of taking tests, evaluation and feed-back.

Positive Impact: Present Era is known as the era of technological innovation and development. The conventional modes of teaching are complemented by using online tools where the teacher evaluates the assignments of the students and also give and take feedback instantly. We are surrounded by the knowledge, technology and society which is continuously evolving. It helps us to keep ourselves updated in terms of enhancing our efficiency and competence, using ICT tools for effective teaching and learning process, engaging ourselves in collaborative team work in taking teaching and learning beyond the four-walls of the classroom , bringing the latest trends and technology in our teaching learning methodology, using the smart phones for learning, teaching, testing and giving and taking feedback, preparing the need based teaching, learning and instructional material, preparing and administering a variety of tests, thinking from different perspectives and discovering new areas of teaching and research in our subjects to make our teaching- learning methodology more interesting.

A.Baytak, B. Tarman, and C. Ayas conducted a study and found that most students believe that their learning is improved by integrating technology into classroom curriculum. They believed that the technology makes learning interesting, enjoyable and interactive. The technology is capable of unlocking keys of learning with all students including the students with special learning needs. Some more positive influences of technology in teaching and learning are as follows:

1.Technology helps us to keep ourselves updated in terms of enhancing our efficiency and competence.

2.Digital technology enables the usage of new pedagogical methods and allows easy access to vast quantities of educational content.

3.The use of laptops and diverse multimedia source material in place of textbooks provides more convenient access to everyone everywhere.

4.With the help of technology, teachers can easily see how their students are performing as a whole class, as a subgroup, and as individuals and can provide intervention as needed. Most educational apps include easy to use reporting features so that assessment data can also be shared with administrators and parents.

5.Technology allows teachers to see where students may be missing particular pieces of understanding and then to target lessons just for that knowledge.

6.Technology is allowing students to learn what and when they need instead of sitting through hour-long lectures of material they have mostly mastered.

7.Online courses allow students to progress at their own pace. Programs can be adjusted to meet students at their precise learning levels.

8.Technology helps the students to have exposure and access to different ways of learning.

Negative Impact : Technical aids are boon as well as bane to teaching and learning. Education has been commercialised where the value system has degraded to such an extent in the recent past that some universities have introduced the subject of Universal Human Values in the curriculum. It has happened because the technology and technical aids cannot inculcate morality or values.

1. At present, the provision of information to the learners is out of the control of the teachers, parents, elders or the entitled knowledge providers. The learners acquire the information not only as per their needs but also get a specific information and knowledge which is not required as per their need and age group. Now-a-days , any information is just a single click away from the seeker or learner.

2. We cannot deny the fact of facing teething problems while using technical aids. Technical aids are not successful in villages where power supply is not available or if it is there, it has long power cuts.

3. The excessive and wrong use of technology is creating personality disorders like lethargy, stress, procrastination, indiscipline, disobedience, anger, distress, irritation, depression, disturbance in routine work, disinterest in studies etc. among the students. Consequently, they are disappearing from the classrooms. They are fearing of facing the crowd or classmates and teachers.

4. The learners are also suffering from various health problems viz. weakened eye-sight, back-pain, cervical pain, mental & physical stress and sleeplessness.

5. They watch prohibited videos. The crime rate of cheating cases with technical methods are increasing day by day.

6. The teachers who are not technology friendly, are also hesitating or afraid of teaching via technical aids.

7. The role of teacher as a mentor and guide is getting minimised now-a-days. The place of teachers is very soon going to be taken over by robots.

8. The students are disappearing from the libraries. E-books and E-library are in vogue instead of the hard copies of books.

9. The implementation of technology in the classroom may lead to distraction of the students in terms of remaining busy in tweeting, snap chatting , messaging on what's app etc. rather than paying attention to studies.
10. Privacy of student information and data is also an issue to keep many administrators and teachers away from implementing any type of technological initiative to maintain data.
11. Technology is transient and can become obsolete very quickly.
12. All the students may not have access to technical tools outside the classroom. When educational technology based programs are considered for homework or flipped learning , it's implementation may not be successful due to non- availability of Internet access.
13. Technology has paved the way for plagiarism. The students can easily access others' work viz. reports, tests, class notes and so on and it becomes difficult for the teacher to know about the originality of the work done by the students.

Suggestions: Whatsoever the positive effects of technology are there in teaching and learning , still the role of classroom system, parents, elders, guides, friends and the teachers is equally important in the era of technological innovation and development in education. In comparison to learning solely from technology or technical aids, the traditional classroom setting with technical aids provide ambient environment for learning respect, discipline, management skills, face to face interaction, inspiration and value based life skills.

1. Grade System should be adopted for each and every course so that exam should not be a burden for the students.
2. Discussion Forums can be created for the clearance of doubts of the learners.
3. Virtual classrooms can be opted through various mobile applications like by creating and using What's App Group.
4. Faculty and students exchange programmes can be planned and executed among various institutions instead of sharing only video lectures.
5. The role of parents, teachers, learners and technology need to be redefined.
6. A suitable standard approach and mode of teaching can be adopted at the initial stages of teaching but a personal style with some modification in the existing one is developed as the teachers gain experience and become technology friendly.

Conclusion:

As every coin has two sides, similarly technology also has two sides i.e. Positive and Negative. We have a choice which side we have to look towards. We can say that it is not the technology and technical aids that are wrong or bad and have a negative impact in teaching learning but it is their usage which is wrong or bad. We should not be dependent completely on technology for educating our young learners. We should use it as an aid for their development not as a Master to govern us. We can use the best of both the teaching learning modes i.e. the previous conventional method imbibing value based education and the latest mode equipped with technical aids to nurture them and unleash their creativity and innovation and make them the best value based citizens of our country. Today, let us decide and promise to ourselves to make the right and sensible use of technology to educate our learners for the wellbeing of our society.

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Exploring Socio-Economic Dynamics: Cultural Hybridity, Language, and Gender as Catalysts for Sustainability in Postcolonial Literature

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Abstract:

Language, as a tool of oppression and resistance, occupies a pivotal position in postcolonial literature. The imposition of colonial languages often served as a mechanism of control, marginalizing indigenous languages, and erasing indigenous ways of knowing. Resistance in postcolonial literature encompasses a range of strategies and actions employed by authors and characters to challenge, critique, and subvert colonial oppression and its legacies. It involves resisting various forms of domination, including cultural, political, economic, and linguistic, and asserting agency, dignity, and autonomy in the face of colonial power dynamics.In the dynamic landscape of postcolonial literature, the interplay between identity and power stands as a central theme, reflecting the complex tapestry of human experiences shaped by historical legacies of colonization and cultural hybridity. Through the lens of cultural hybridity, language, and gender, postcolonial literature serves as a profound tool of resistance, illuminating the multifaceted ways in which individuals negotiate their identities within systems of oppression and dominance. At the heart of this discourse is cultural hybridity, which encompasses the blending and reshaping of diverse cultural elements in the aftermath of colonial encounters. Postcolonial writers intricately weave together fragments of their cultural heritage with influences from the colonizer's language and traditions, creating narratives that challenge monolithic representations of identity and offer alternative modes of self-expression. Through these literary acts of cultural synthesis, authors reclaim agency and assert the richness of their hybrid identities, subverting the homogenizing forces of colonialism. Yet, through linguistic innovation and code-switching, postcolonial writers destabilize linguistic hierarchies and assert the vitality of their native tongues. Language becomes a site of resistance, enabling writers to challenge dominant narratives and articulate their experiences with newfound linguistic agency.Moreover; gender intersects with these dynamics of power and identity, shaping how individuals navigate colonial and postcolonial landscapes. Postcolonial literature critically examines the construction of gender roles within colonial discourse, highlighting the intersectional oppressions faced by women and gender minorities. By centering marginalized voices and experiences, authors disrupt normative gender binaries and challenge patriarchal structures, fostering spaces of empowerment and solidarity.

Keywords: Gender, Linguistics, Identity, Language, Political, Interdisciplinary.

Introduction:

Language, as a tool of oppression and resistance, occupies a pivotal position in postcolonial literature. The imposition of colonial languages often served as a mechanism of control, marginalizing indigenous languages, and erasing indigenous ways of knowing. Yet, through linguistic innovation and code-switching, postcolonial writers destabilize linguistic hierarchies and assert the vitality of their native tongues. Language becomes a site of resistance, enabling writers to challenge dominant narratives and articulate their experiences with newfound linguistic agency. Moreover, gender intersects with these dynamics of power and identity, shaping how individuals navigate colonial and postcolonial landscapes. Postcolonial literature critically examines the construction of gender roles within colonial discourse, highlighting the intersectional oppressions faced by women and gender minorities. By centering marginalized voices and experiences, authors disrupt normative gender binaries and challenge patriarchal structures, fostering spaces of empowerment and solidarity.

In exploring intersections of identity and power in postcolonial literature, we embark on a journey of resistance and resilience, where cultural hybridity, language, and gender emerge as potent tools of liberation. Through close analysis of literary texts and theoretical frameworks, we seek to unravel the complexities of postcolonial subjectivities and illuminate the transformative potential of storytelling in the ongoing struggle for social justice and decoloniality.

Cultural Identity As A Tool Of Resistance In Postcolonial Literature:

Cultural identity serves as a potent tool for resistance in postcolonial literature through its capacity to subvert hegemonic narratives, reclaim agency, and assert the dignity and validity of marginalized cultures. Here is an analysis of how cultural identity operates as a tool for resistance in postcolonial literature:

1) **Subversion of Hegemonic Narratives**: Postcolonial literature challenges the dominant narratives propagated by colonial powers, which often sought to depict colonized peoples as inferior or barbaric. By foregrounding the complexities and richness of indigenous cultures, postcolonial authors disrupt these hegemonic narratives, offering counter-narratives that highlight the humanity and dignity of colonized peoples. Through the exploration of cultural practices, traditions, and oral histories, writers reclaim the narrative authority and challenge the colonial gaze, asserting the validity of their cultural identities.
2) **Reclamation of Agency:** Cultural identity becomes a means of reclaiming agency and self-determination in the face of colonial oppression. Postcolonial literature often depicts characters who actively resist assimilation and cultural erasure by embracing and celebrating their cultural heritage. Through acts of cultural preservation, revival, and innovation, characters assert their right to exist on their terms, refusing to be defined solely by colonial categorizations. This assertion of agency serves as a powerful form of resistance, affirming the autonomy and vitality of colonized communities.
3) **Interrogation of Hybridity**: Postcolonial literature frequently explores the concept of cultural hybridity; wherein diverse cultural elements intersect and intertwine in the aftermath of colonial encounters. By embracing hybrid identities, characters navigate the complexities of cultural belonging and challenge essentialist notions of identity imposed by colonial powers. This interrogation of hybridity destabilizes fixed categories of identity and disrupts colonial attempts to homogenize and divide colonized peoples. Instead, it emphasizes the fluid and dynamic nature of cultural identity, fostering spaces of inclusivity and solidarity.
4) **Cultural Revitalization and Resilience**: Postcolonial literature often portrays the resilience and adaptability of colonized cultures in the face of colonial violence and exploitation. Through narratives of cultural revitalization and resurgence, authors highlight the enduring strength and vitality of indigenous traditions. By centering cultural practices such as storytelling, music, dance, and ritual, writers celebrate the resilience of colonized communities and affirm their capacity for survival and renewal. This portrayal of cultural resilience serves as a form of resistance against attempts to erase or marginalize indigenous cultures.

cultural identity functions as a multifaceted tool for resistance in postcolonial literature, enabling authors and characters to challenge hegemonic narratives, reclaim agency, interrogate hybridity, and celebrate cultural resilience. Through the exploration of cultural identity, postcolonial literature not only exposes the legacies of colonialism but also offers pathways toward decolonization and cultural empowerment.

Language As A Tool Of Resistance In Postcolonial Literature:

Language plays a pivotal role in postcolonial literature as a tool of resistance against hegemonic structures and systems of power. By reclaiming their indigenous languages and using them in their literary works, postcolonial writers challenge the dominant colonial discourse that has marginalized and oppressed their cultures. Through the manipulation of language, these writers subvert Eurocentric narratives and redefine notions of identity, history, and agency. Furthermore, by incorporating elements of oral traditions and idiomatic expressions into their writing, they assert their cultural autonomy and assert the validity of their own lived experiences. In utilizing language as a form of resistance, postcolonial authors not only empower themselves but also inspire others to reclaim their voices and identities in a world still grappling with the legacies of colonialism.This is an examination of how language functions in postcolonial literature as a means of resistance:

a) **Linguistic Decolonization**: Postcolonial literature often grapples with the legacy of colonial language imposition, where the languages of the colonizers were enforced at the expense of indigenous languages and cultures. In response, writers engage in acts of linguistic decolonization by reclaiming indigenous languages and revitalizing marginalized linguistic traditions. Through the incorporation of native tongues, pidgin languages, or vernacular speech into their writing, authors subvert the dominance of colonial languages, asserting the value and resilience of indigenous linguistic heritage.
b) **Empowerment through Narrative Voice**: Language empowers marginalized voices in postcolonial literature, providing a platform for articulating resistance narratives and asserting cultural identity. Using distinct narrative voices, dialects, and storytelling traditions, writers amplify the voices of marginalized communities and offer alternative perspectives on history and experience. Language becomes a tool for reclaiming agency and self-representation,

enabling characters to assert their humanity and dignity in the face of colonial dehumanization.

c) **Transcending Linguistic Boundaries**: Language in postcolonial literature becomes a site of transcultural exchange and solidarity, enabling connections across linguistic boundaries and fostering alliances among marginalized communities. Writers explore how language can bridge divides, facilitate understanding, and build solidarity among diverse linguistic groups. Through multilingual narratives and translation, postcolonial literature embraces linguistic diversity as a source of strength and resistance against the homogenizing forces of colonialism.

language functions as a multifaceted tool of resistance in postcolonial literature, enabling writers and characters to subvert linguistic hegemony, innovate through linguistic hybridity, decolonize discourse, assert linguistic agency, and forge connections across linguistic divides. Through linguistic resistance, postcolonial literature not only challenges colonial legacies but also imagines more inclusive and equitable forms of cultural expression and communication.

Genderas A Tool Of Resistance In Postcolonial Literature:

Gender as a tool of resistance in postcolonial literature is a complex and multifaceted theme that challenges traditional power structures and hierarchies. Postcolonial writers often use gender to subvert colonial ideologies and resist domination by reimagining the roles of women, LGBTQ+ individuals, and other marginalized genders in their narratives. By highlighting the experiences of these typically oppressed groups, postcolonial authors expose the intersectionality of oppression and reveal how gender dynamics are deeply intertwined with issues of race, ethnicity, class, and nationality. Through their writing, these authors disrupt dominant narratives and offer alternative perspectives that challenge Eurocentric norms. By portraying diverse gender identities and experiences, postcolonial literature empowers marginalized communities, promotes social justice, and fosters inclusivity in an increasingly globalized world. Postcolonial literature not only challenges traditional power structures through its exploration of gender, but also serves as a platform for marginalized voices to be heard. By centering the experiences and perspectives of women, LGBTQ+ individuals, and other marginalized genders, postcolonial authors give a voice to those who have been historically silenced and overlooked. This representation not only empowers these communities but also educates readers about the diverse range of identities and struggles that exist within postcolonial societies. Through their storytelling, postcolonial writers create a space for dialogue, empathy, and understanding, ultimately contributing to a more inclusive and equitable world.

a) **Interrogating Colonial Gender Hierarchies**: Postcolonial literature often critiques the imposition of Western gender norms and hierarchies by colonial powers, highlighting how colonialism reinforced patriarchal structures and marginalized non-binary or non-conforming gender identities. Through the portrayal of characters who defy gender expectations or challenge patriarchal authority, authors expose the intersections of gender and colonialism, revealing how colonialism sought to control not only lands and resources but also bodies and identities.

b) **Centering Marginalized Voices**: Postcolonial literature amplifies the voices and experiences of women, LGBTQ+ individuals, and other marginalized gender identities who have been historically silenced or marginalized within colonial and postcolonial contexts. By centering these voices, authors resist the erasure of marginalized identities and offer alternative narratives that challenge dominant representations of gender and sexuality. Through the portrayal of complex and multifaceted characters, postcolonial literature celebrates the resilience and agency of marginalized genders.

c) **Resistance Through Subversion**: Gender becomes a site of resistance in postcolonial literature through acts of subversion and defiance against oppressive gender norms and expectations. Characters may challenge gender roles, defy patriarchal authority, or reclaim agency over their bodies and desires, asserting their right to self-determination and autonomy. By refusing to conform to prescribed gender roles, characters disrupt the status quo and challenge the power dynamics that seek to constrain and control marginalized genders.

d) **Intersectional Analyses:** Postcolonial literature often employs intersectional analyses to examine how gender intersects with other axes of identity, such as race, class, and ethnicity, to shape experiences of oppression and resistance. The authors explore how colonialism and patriarchy interact with other forms of power and privilege, highlighting the intersecting oppressions faced by women of color, queer individuals, and other marginalized groups. Through intersectional perspectives, postcolonial literature fosters a deeper understanding of the complexities of identity and resistance.

Gender operates as a powerful tool of resistance in postcolonial literature, providing a lens through which authors explore and challenge colonial and patriarchal structures, empower marginalized voices, and envision alternative forms of identity and agency. Through the exploration of gender, postcolonial literature challenges oppressive power structures and fosters narratives of empowerment, liberation, and social change.

In the world of postcolonial literature, gender is not just about who wears the pants—it is a powerful tool for challenging colonial legacies and societal norms while also bringing to light issues of power and identity.Postcolonial literature is not just about the way people talk after colonialism—it is a rich tapestry of writing that examines the impacts of colonialism and imperialism on cultures, societies, and individuals. It is like unpacking a suitcase full of history, culture, and identity.Resistance is not just about doing push-ups or saying no to that second slice of cake—it is about fighting against oppression, reclaiming identity, and challenging the status quo. In postcolonial literature, resistance is as common as tea and biscuits, with gender often serving as a powerful weapon in the battle for equality and justice.

Conclusion:

In the rich tapestry of postcolonial literature, the themes of cultural identity, language, and gender intersect to form powerful narratives of resistance against colonial oppression and its enduring legacies. Through the exploration of cultural hybridity, postcolonial authors challenge hegemonic narratives and assert the vitality of marginalized cultures, reclaiming agency and self-determination in the face of colonial domination. Language becomes a site of resistance as writers subvert linguistic hierarchies, reclaim indigenous languages, and challenge colonial discourses, fostering spaces of inclusivity and solidarity. Similarly, gender emerges as a potent tool of resistance, enabling authors to interrogate colonial gender hierarchies, amplify marginalized voices, and envision alternative forms of identity and agency.Postcolonial literature serves as a battleground for resistance, where authors and characters navigate the complexities of power and identity while challenging the status quo. Through acts of cultural revitalization, linguistic innovation, and defiance against oppressive gender norms, postcolonial literature offers pathways toward decolonization and cultural empowerment. It celebrates the resilience of colonized communities, amplifies the voices of marginalized genders, and fosters narratives of empowerment, liberation, and social change.In the world of postcolonial literature, resistance is not merely an abstract concept but a lived reality, embodied in the struggles of characters who resist cultural erasure, linguistic assimilation, and patriarchal oppression. It is a reminder of the enduring legacy of colonialism and imperialism, as well as a testament to the resilience and resilience of colonized peoples. Through storytelling and narrative innovation, postcolonial literature not only exposes the injustices of the past but also imagines more just and equitable futures, grounded in principles of justice, equality, and liberation.

As readers, scholars, and activists engage with postcolonial literature, they are invited to participate in a journey of resistance and resilience, where cultural hybridity, language, and gender emerge as potent tools of liberation. In unraveling the complexities of postcolonial subjectivities, we are challenged to confront the legacies of colonialism and envision a world where all voices are heard, all identities are respected, and all forms of oppression are dismantled.

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Streamlining Local Self Government Services through Automation in Kolhapur, Maharashtra

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Abstract:

The local self-government bodies play a crucial role in providing services to the citizens at the grassroots level. With advancements in technology, there is a growing trend towards automation of services in local self-government bodies to improve efficiency and transparency. This research paper aims to explore the current status of automation of services in local self-government in Kolhapur, Maharashtra. The paper will analyze the benefits, challenges, and best practices of automation in local self government bodies.

Keywords: GIS, Real-Time, LSG, Automation, Capacity Building, Data Security

Introduction:

Local self-government bodies in Kolhapur, Maharashtra, like municipal corporations and municipal councils, are responsible for providing various services to the citizens, such as waste management, water supply, and issuance of permits and licenses. The automation of services in these bodies can help streamline processes, improve service delivery, and enhance transparency.

Methodology:

This research paper is based on a combination of primary and secondary research. Primary research will include interviews with officials from local self-government bodies in Kolhapur, Maharashtra, to understand the current status of automation of services. Secondary research will involve a review of existing literature on automation of services in local self-government bodies.

Current Status of Automation of Services in Local Self Government:

According to the interviews conducted with officials from local self-government bodies in Kolhapur, Maharashtra, there is a mixed status of automation of services. Some services, such as property tax payment and birth/death certificate issuance, have been automated to some extent. However, there are still challenges in automating other services.

Automation of services in LSG:

1. Implementing a centralized software system: Establish a centralized software system that can manage and streamline various services provided by the local self-government. This software can handle tasks like property tax collection, birth and death registration, building permits, etc.

2. Online portals for citizen services: Develop online portals where citizens can access and avail various services offered by the local self-government. This will reduce the need for physical presence and paperwork, making services more convenient and efficient for residents.

3. Electronic payment systems: Implement electronic payment systems to facilitate online payments for services like property tax, water bills, building permits, etc. This will make the payment process easier for citizens and help in revenue collection for the local self-government.

4. Real-time tracking of services: Use technology to enable real-time tracking of service requests and complaints. This will help in monitoring the progress of service delivery and ensure timely resolution of issues raised by citizens.

5. Implementing GIS technology: Utilize Geographic Information System (GIS) technology to map and analyze data related to various functions of the local self-government. This can help in better decision-making, planning, and resource allocation.

6. Employee training and capacity building: Provide training to staff members on using and managing the automated systems effectively. This will ensure smooth implementation of automation processes and enhance the efficiency of service delivery.

7. Regular monitoring and evaluation: Regularly monitor and evaluate the performance of automated systems to identify areas for improvement and ensure that services are delivered efficiently and effectively to citizens.

Fig. 1 Steps in Service automation

Benefits of Automation of Services in Local Self-Government: The automation of services in local self-government bodies in Kolhapur, Maharashtra, can brig several benefits, such as:

1. Improved efficiency: Automation can streamline processes and reduce manual errors, leading to faster service delivery.

2. Enhanced transparency: Automation can make the processes transparent, allowing citizens to track the status of their applications online.

3. Cost savings: Automation can reduce the administrative costs of service delivery, leading to cost savings for the local self-government bodies.

4. Better decision-making: Automation can provide real-time data to decision-makers, enabling them to make informed decisions

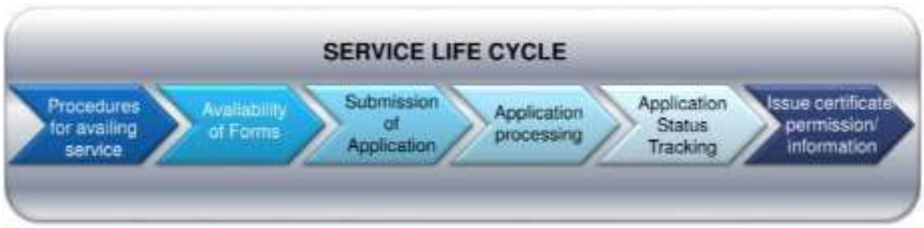

Fig. 2 Service Life Cycle

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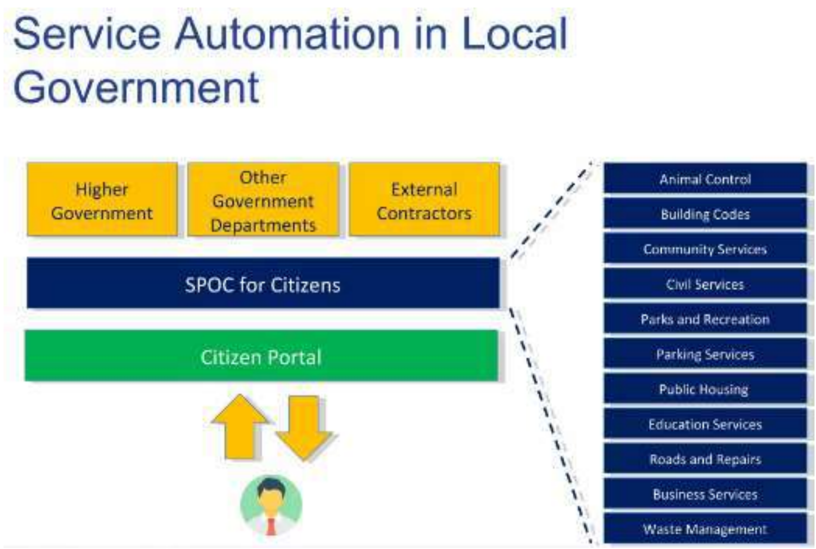

Fig.3 Service automation in LSG

Challenges of Automation of Services in Local Self-Government:

Despite the benefits, there are several challenges in the automation of services in local self-government bodies in Kolhapur, Maharashtra, such as:

1. Resistance to change: Officials and employees may resist automation due to fear of job loss or lack of technical skills.

2. Infrastructure challenges: Lack of proper IT infrastructure and connectivity can hinder the automation process.

3. Data security concerns: Automation can raise concerns about data security and privacy, especially in sensitive services like property tax payment.

4. Financial constraints: The initial investment required for automation can be a barrier for local self-government bodies with limited budgets.

Best Practices of Automation of Services in Local Self-Government:

To overcome the challenges and maximize the benefits of automation, local self-government bodies in Kolhapur, Maharashtra, can adopt the following best practices:

1. Stakeholder engagement: Involving all stakeholders, including citizens, officials, and employees, in the automation process can increase acceptance and ensure a smooth transition.

2. Capacity building: Providing training and skill development programs for employees can help them adapt to the new technologies and ensure successful implementation.

3. Scalable solutions: Investing in scalable and flexible IT solutions can accommodate future needs and expansions of services.

4. Monitoring and evaluation: Regular monitoring and evaluation of the automated services can help identify bottlenecks and areas for improvement.

Conclusion:

The automation of services in local self-government bodies in Kolhapur, Maharashtra, has the potential to revolutionize service delivery, improve efficiency, and enhance transparency. However, it is essential to address the challenges and adopt best practices to ensure successful implementation. By embracing automation, local self-government bodies can effectively meet the needs of citizens and contribute to the overall development of the region.

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Health & the Environment

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Abstract:

Health is an essential element of concern for every human being. Being healthy is crucial for having a good life as a person's interaction with society, the ability to work, and civil involvement depend on it. It is a massive topic of importance, and hence it has been given the legal entitlement through the right to health.

India's healthcare infrastructure could be more robust, and health issues are massive and deserve more importance. Moreover, environmental conditions harm health due to multiple contributors, like pollution, rapid urbanization, deforestation, and industrialization. The effect of these contributors on public health is further aggravated due to widespread poverty and severe lack of public infrastructures, such as access to clean drinking water, sanitation, lack of healthcare, and emerging industrial pollution problems. The International Covenant on Economic, Social, and Cultural Rights (ICESCR) includes both the right to health and a healthy environment in Article 12. As a signatory to this covenant, India is bound by the obligations to respect, protect, and fulfill the rights to health and a healthy environment for its citizens.

Keyword: Health, The Environment

Introduction:

Our environment and health are intricately linked to one another. A good quality environment has a positive impact on human health. When our environment is contaminated or polluted, then all life on this planet is affected Environmental health includes the physical, chemical, and biological factors external to an individual that impacts human behaviours. Environmental health is very important as it helps in better understanding of relationships between our environment and the incidence of disease. It will help towards preventing disease and creating health-supportive environments. It also involves the measurement and control of the various environmental factors that may affect human health negatively The impacts of environmental factors on health are varied and complex in nature. For example, environmental pollution can cause allergies, toxicity and even cancer. The linkages between exposure and disease are not that clear but there

is a direct causal relationship in some cases. Urban air pollutants can cause respiratory diseases and heavy metals have been reported to cause neurological diseases. Environmental factors causing health disorders have not been given importance in policy decision and development planning activities. There are so many pathogenic biological agents and parasites that cause significant health problems. Further chemicals and hazards occurring at work environments are also some causes for diseases and deaths. Exposure to pollutants whether short term exposure or long term exposure causes diseases and in some cases chronic ailments. The environment may be polluted by natural phenomena like volcanoes or earth processes. But in the past decades especially after industrialization human beings have been responsible for such an increased and alarming level of pollutants in the environment. This is a cause of serious concern. It is only in the past two decades that there is an alarm at the international levels with respect to the degradation of our environment and its consequences on human health and well being.

Objectives:

1) Promote healthier environments to improve health.
2) The purpose of the module is to understand the concept of health & environment.
3) This module also intends to asquint the student with some of the significant issues like concern on environmental & health, concern on public health & climate & health.
4) To impart basic knowledge about the environment & its allied problems 5. To create the awareness about environmental problems among people. 6. To develop an attitude at concern for the environment

Human health and environment:

The effect of various environmental exposures, such as toxic chemicals, air pollution, and biological agents on the human body, is commonly perceived as the central problem in environmental health. However, maintaining a healthy environment extends beyond controlling these hazards.

Areas of environmental health and safety:

There are several environmental health issues that can negatively affect us.

The following five key health topics are integral to supporting human life and building healthier environments.

1. Water and sanitation
2. Chemicals and radiation
3. Air pollution
4. Built environments
5. Climate change

1. Water and sanitation: Roughly 784 million people are still without access to clean drinking water. Lack of access to safe water is a huge health concern for humans and can negatively affect the environment as people take drastic action to secure a water source.

2. Chemicals and radiation: Toxic gases, pollutants, and radiation exist all around us. Yet, they have the potential to wreak havoc on the health of both humans and the environment.

Pesticides, for example, expose farmworkers and their families to pesticide induced diseases such as asthma and various cancers. An analysis of over 40 years of epidemiologic literature has found that exposure to agricultural pesticides increases brain cancer risk by up to 20%.

3. Air pollution: Environmental exposures to poisonous gases are harmful to plant life, animal life, and human respiratory systems. Some leading sources of air pollution include:

1) Power plants and factories
2) The burning of fossil fuels
3) Industrial waste
4) Natural disasters like volcano eruptions and wildfires

Industrial factories and billions of cars are just two contributors to the earth's declining air quality. About 85% of US energy comes from the industrial burning of fossil fuels, creating 50% of the pollution in America.

4. Built environments: Shelter forms a large part of human health and safety. But too many built developments can harm the environment.

A poorly designed built environment produces unnecessary waste. It also consumes excessive amounts of water and energy.

5. Climate change: Considered the top threat to humanity in the 21st century, climate change disrupts the natural world in various dangerous ways. Natural disasters also fall into this category.

The threat of climate change is continuously increasing. According to the WMO, the number of disasters has increased by a factor of five over the 50 years, driven by climate change and more extreme weather.

The environment affect our health: If we want to survive and thrive as a species, it is vitally important that we tend to the environment's needs just as much as our own.

Here are just some ways that environmental health hazards can trigger poor human health.

1. Respiratory diseases: Air-borne pollutants and toxins can filter into our lungs and cause severe respiratory diseases. Ensuring a high level of air quality will prevent these kinds of diseases. And the effects or not felt evenly across the globe. In urban areas across the US, low-income neighborhoods and communities of color experience an average of 28% more nitrogen dioxide (NO2) pollution than higher-income and majority-white neighborhoods.

2. Increased risk of waterborne diseases: Cholera, diarrhea, dysentery, hepatitis A, typhoid, and polio can all be transmitted by poor water and sanitation. Contaminated drinking water is estimated to cause 485 000 diarrhoeal deaths each year. People living in low-income communities are most at risk for infectious diseases, especially waterborne diseases.

3. Danger from natural disasters: Even the healthiest environment cannot escape the occasional natural disaster. But environmental health procedures can reduce their impact significantly.

4. Lack of nutrition: Lack of nutrition often looks like a lack of healthy and affordable grocery stores near homes. This is called a food desert. Without proper access to nutrient-dense food, our bodily systems cannot function optimally. Every human has a right to live in an environment that supports their health, not degrades it.

To help improve our environment health: Thankfully, many industries are taking steps to reduce their air pollution emissions. More major businesses are embracing clean energy generated from solar and wind instead of fossil fuels. Some manufacturers are using technologies that destroy air pollution at the source before it enters the earth's atmosphere. For example, by using regenerative thermal oxidizers (rtos), factories can repurpose industrial waste heat to destroy pollutants. The auto industry is also doing its part by increasing its recycling efforts. The world's automakers are investing in facilities to salvage old parts and recycle millions of electric batteries for future cars. Jaguar Land Rover has a project to recycle aluminum from scrapped vehicles, which could cut CO2 emissions from production by 26%. We can all take actionable steps as individuals to help improve our environmental health. Here are just a few things you can do to help.

1. Reduce your carbon footprint: You can drastically reduce the amount of carbon you contribute to the atmosphere by choosing methods of travel other than a car or airplane. If possible, reduce your carbon footprint by walking to work or riding your bike.

2. Reduce, reuse, recycle: The world is densely populated with industrial factories that pump harmful CO2 into the environment. Support the health of your environment by reusing the items you have and recycling wherever possible.

3. Grow your own fruits and vegetables: By learning how to grow your own food, you will learn valuable life skills. It is also therapeutic and a great avenue of self-care.

With this growing wellness trend, you'll simultaneously advocate for your health and your environment.

4. Be conscious of the products you use: Many of the products we use were made in factories that exploit both humans and the environment. You can choose to fight against this by being more intentional about your products.

Contribute to environmental health for your well-being: Maintaining a healthy relationship with the environment is key to unlocking a stable, thriving future for all living things.Even though we may sometimes feel our efforts are inconsequential, every small behavioral change made for environmental justice contributes to the greater good of humanity.In addition to personal input, we need contributions toward environmental health from companies and businesses in positions of power. Betterup offers business coaching tools and advice for organizations that want to instigate a healthy, forward-thinking company culture. Contact betterup for a demo today, and start working toward a future in which everyone is happy, healthy, and safe.

Conclusion:

He holistic concept of health is contained in the expression of wholeness. Health is a relative state in which one is able to function well physically, mentally, socially, and spiritually to express the full range of one's unique potentialities within the environment in which one lives. The environment refers to the surroundings in which life exists on earth. Components like animals, humans, sunlight, water, trees, and air make up the environment. They are the earth's living and non-living components. Living organisms include trees, humans, and animals. Environmental health is the branch of public health that: focuses on the relationships between people and their environment; promotes human health and well being; and fosters healthy and safe communities. Environmental health is a key part of any comprehensive public health system. As humans, we are interconnected with our environment. Our natural and built environment is more than just a place for us to live. The state of our world affects our physical and mental health. This vital relationship between humans and our surroundings is called environmental health. Environmental pollutants can cause health problems like respiratory diseases, heart disease, and some types of cancer.2 People with low incomes are more likely to live in polluted areas and have unsafe drinking water. And children and pregnant women are at higher risk of health problems related to pollution. Humans & Environment are inextricably linked. Both of these are house dependent. A healthy environment is essential for the safety of human life. It's detailed description is given in the Paper you as an individual can take action to help improve Our environmental health. And you can protect your health the environment.

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A Literature Review on Impact of Artificial Intelligence in Education Sector

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Abstract:

Guru aur govind dou khade kake lagu pae balihari guru apne givind dio milae.

This is a famous proverb in hindi language which states the importance of *Guru* (Teacher) who is more respectable than *Govind* (God) because a teacher teaches the student the path to reach to God. In today's scenario with the force of globalization, the world is shrinking, and technology has acquired the position of teacher in the life of students. Students can attend classes from home without actually going school or even buying books and making notes. The modern teaching gadget is reaching to every corner of the country and students and teachers are falling prey to this gadget. It's good as long as it is used within limits but once it becomes excessive, it takes away our peace of mind and health. It is just in contravention to the old gurukul system of the country where the development of child was attributed to the physical presence of the Guru in the ashram. The current study is a literature review on impact of artificial intelligence in the education sector. About 42 recent papers have been sampled using judgmental sampling from scholarly data bases. The results revealed a mixed trend where researchers have highlighted the effectiveness and disadvantages of usage of artificial intelligence in the education sector. The researchers have recommended formulation of education policy keeping in view the changing technological environment. Researchers have also stated the disadvantages of artificial intelligence as lacking social skills and ethics and it results in workforce displacement. So it does not mean that with artificial intelligence, students can achieve good grades in exams or a teacher can deliver the contents appropriately to the students. The efforts of the students and the teachers are the backbone of a good education system.

Keywords: Artificial Intelligence, Education sector, Chat GPT, Students, Teachers.

Introduction

The parts of Artificial Intelligence includes: (1) Learning (the trial-and-error method), (2) Reasoning (drawing relevant inferences from the situation at hand), (3) Problem-Solving (divide the queries into special and general purposes), (4) Perception (scans any given environment by using different sense-organs) and (5) Language Understanding (distinctive types of language over different forms of natural meaning, exemplified overstatements). Artificial Intelligence (AI) impacts the education contents and the process. AI saves time in the education process and it also handles the vast syllabus according to the requirements of the teacher and the students. The global education system is more students oriented. It makes them feel more practical than the theoretical concepts of traditional education system. Today AI has made the education system so much friendly that the students can find solutions to their silliest doubts about their education-content on the internet. India has also launched many programs to help teachers and students such as "MOOC (Massive Open-Online Courses)" and "SWAYAM (Study Webs of Active Learning for Young Aspiring Minds)" and AI is supporting for success of these types of programs. The AI is being currently used in the education sector in the form of: Plagiarism Detection, Exam Integrity, Chatbots for Enrollment and Retention, Learning Management Systems, Transcription of Faculty Lectures, Enhanced Online Discussion Boards, Analyzing Student Success Metrics, Academic Research and Connected Campuses.

Literature Review:

Stolpe et al (2024) tried to critically analyze and discuss different components of AI literacy and their data consisted of five AI literacy frameworks related to three traditions of technological knowledge: technical skills, technological scientific knowledge, and socio-ethical technical understanding. Overono et al (2023) proposed that the emergence of Chat GPT and the continued evolution of AI pose an exciting challenge for higher education to refocus students on work that is personally meaningful, and accomplishable only by humans. Naidu et al (2023) considered the ethical and pedagogical implications of using Chat GPT, particularly in relation to online assessment in distance education. They approached its use with caution and considered the ethical implications of academic integrity for online assessment.

Dyre, S. K. (2023) termed modern educators as Generation Alpha (Gen Alpha), born between 2010 and 2024 and future educators as human educators working firmly within the framework of an educational model driven by Artificial Intelligence (AI) and dispense university courses to this yet to be born generation who are expected to propagate their own natural curiosities for artificial concepts, hence referred to as The Artificials (born 2025-2039). While it is anticipated the university domain in 2050 will be largely governed by a sophisticated Strong AI, future recruiters will be judiciously screening for The Artificial graduates who have successfully completed the highly sought-after human literacy and soft skills courses at the university level, essential for genuine human interaction, in order to grow a competent and capable workforce.

Marin et al (2023) showed that significant challenges are identified, such as the initial investment in technology and the need for adequate teacher training. Hadidi et al (2023) briefly reviewed the potential uses and expansion of AI-based technologies in reducing the educational gap that exists in many communities. Sagre et al (2023) discussed the various AI tools such as scispace, elicit, Chat GPT, quillbot, trinka, plag, scite, and how they can be used to improve research writing and outcomes. Cheng et al (2023) evaluated the capabilities of Chat GPT models 3.5 and 4 to provide solutions to seven educational accounting cases.

Pal, S. (2023) revealed that AI not only facilitates individualized instruction and assessment but so enables innovative curriculum design by harnessing big data analytics. Okagbue et al (2023) concluded that school administrators should promote the use of AI and Machine Learning (ML) devices to promote quality pedagogical services in the academic environment.

Bhutoria, A. (2022) employed a systematic review using a Human-In-The-Loop natural language processing model and brought forward AI's success in catering to specific learning requirements, learning habits, and learning abilities of students. Roy et al (2022) tried to measure the intention of adopting AI-based robots in the educational system of Indian universities using three theories: - technology acceptance model, the theory of planned behavior, and the technology readiness index. Chu et al (2022) stated that artificial intelligence (**AI**) in higher education (HE) has risen quickly in the last 5 years with a concomitant proliferation of new **AI** tools available.

Devi et al (2022) stated that education has already been benefited from digitization in terms of accessibility and time management. Sheetlani et al (2022) stated that decision-making and classification are at the heart of AI applications. Chaudhry et al (2022) presented the focus of latest research in Artificial Intelligence in Education (AIEd) on reducing teachers' workload, contextualized learning for students, revolutionizing assessments and developments in intelligent tutoring systems. Kumar et al (2022) explored the potential of Artificial Intelligence (AI) and Robotics in Indian education, in terms of their ability to substitute teachers.

Jaiswal et al (2021) conducted in-depth interviews with four subject matter experts and four senior managers from leading Indian educational technology firms and they found that personalized learning, recommendation systems, and adaptive assessments were helping students and supporting teachers. Alam, A. (2021) stated that education is helped by AI in at least two ways: (1) the educational process – assistance and modifications to pedagogy and educator's routine function; and (2) the educational ambit and content – what kind of education is needed. Sun et al (2021) tried to create a modern tool platform to help students improve their English language teaching efficiency in line with their mastery of knowledge and personality. Majid et al (2021) stated that AI helps students to achieve their goals and streamline the process of education. It can analyze the students' previous learning history, identify their weaknesses, and improve the upcoming learning opportunities for personalized learning experiences. AI can be used effectively for transcription of faculty lectures in local languages which can thus become a good educational resource to students of technical education.

Bhatnagar, H (2020) gave an overview of AI along with its role in the field of higher education, focusing on the enhancement of human capabilities, empowering staff and interactive learning. Singh et al (2020) stated that AI can help teachers, students, and non-teaching staff in different ways and save time and resources. It can help teachers in preparing lesson plans according to the class and students, help in reducing the work related to non-teaching activities, provide actionable feedback, improving in teaching techniques, and help in various administrative work of an educational institute.

Jindal et al (2020) tried to assess the knowledge and education about artificial intelligence (AI) among medical students in India. A total of 226 students responded to the survey. Majority of the students had heard about AI (62.5%) and internet was the main source of information for them. Unfortunately, none wanted to pursue their career in AI. 85.9% students showed interest to learn more about AI, although knowledge about any computer language was lacking in 73% students. 73.4% students were also unaware about journals and publications going on in the field of AI. However, 89.1% students were optimistic about scope of integration of AI in medicine.

Pedro et al (2019) stated that Six challenges are presented: - (1) Developing a comprehensive view of public policy on AI for sustainable development. (2) Ensure inclusion and equity for AI in education. (3) Prepare teachers for an AI-powered education while preparing AI to understand education. (4) Develop quality and inclusive data systems. (5) Make research on AI in education significant. (6) Ethics and transparency in data collection, use and dissemination.

Bhattacharjee, K. K. (2019) presented a scientometric assessment of the trend of the research papers on AI usage in education sector by way of analyzing; annual growth of research publications of AI (both globally and country wise) and growth trend of the "AI usage in education" publications (both country-wise as well as individual share). Lakshminath et al (2013) stated that there exists a dichotomy between the use of technology and even its access to different categories of people.

Research Gap and future scope:

1. There is scope for further improvement in the policies in education sector to cater to the changing technological environment.
2. There is scope of more collaboration between teachers and students regarding ethical usage of AI apps.

Research Objective:

1. To review the existing literature in the field of artificial intelligence in education sector in India.
2. To identify the gaps in the existing the literature available.

Research Methodology: The source of data collection was secondary sources. From 100s of research papers available online, the most recent 42 papers were sampled using judgmental sampling technique. A systematic literature review of 42 articles that were carefully collected, retrieved, and rigorously categorized from various scholarly databases. The articles, included in this study, focused primarily the effectiveness of Artificial Intelligence on teachers, students and the administration in colleges/universities.

Conclusion and Recommendations:

A total of 42 recent papers were selected. There were 8 papers that highlighted Artificial Intelligence in terms of Education Technology Companies, Chat GPT, Quickbot, Twinker, Plag, Scispace, Artifial Intelligence Text Generator (AITG) and AIEd driven applications in schools and universities. 5 papers highlighted impact of AI on teachers and the students. 6 papers pointed towards the disadvantages in traditional teaching and effectiveness of AI as low cost, transcription of lectures in local languages, personalized adaptive and save time and resources. Researchers have also stated the disadvantages of AI as lacking social skills and ethics and it results in workforce displacement. However, in future AI is the necessity due to less number of teachers as compared to the number of students. Researchers have also stated that although AI assessment is error free as compared to human assessment yet there is risk in online assessment and systems are not always virus free. In a study it was found that teachers in universities were more adaptive to the new technologies than the students. Researchers used primary data in form of questionnaires from teachers and the students and statistical used by the researchers were frequency tables, percentage analysis, one way ANOVA.

As the globalization is shrinking the world where every information is on our fingertips there is urgent need of AI literacy in the education sector where the students should be taught the safe usage of AI so as not to be too much dependent on it. The Education policy should be framed considering the ethical use of AI in the universities and institutes. While the role of AI is only assisting the students and the teachers in education processes, the fact is that real responsibility for execution of learning lies with the human mind. So it does not mean that with AI, students can achieve good grades in exams or a teacher can deliver the contents appropriately to the students. The efforts of the students and the teachers are the backbone of a good education system.

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Pathways Of Indian Students Transition Through Higher Education: Why Do They Differ?

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Abstract:

Differential pathways followed by the students deserve more attention due to the development of school education in general and higher education in particular during last two decades in India. Due to the consistent efforts by the Indian government at the school education level, students arriving at the doors of higher education institutions are no longer homogeneous. As a result, the diversity of students in the higher education institutions is leading towards diversification of pathways followed by the heterogeneous segments of students. There is a real shortage of studies which has researched the students' differential pathways through higher education in general and specifically in Indian context from the micro perspective. In this context, the purpose of this study was to examine the decision making process and differential trajectories followed by the students during transition from secondary to higher education. Methodology of the present study involves mixed method approach and data was collected from the sample of 900 senior secondary students. Self-structured questionnaire and semi structured interviews were used for collection of data. Findings of the study reveal that decision making process of transition through higher education is complex and involves different stakeholders and timeline in Indian context.

Keywords: Higher education; Decision Making; Differential Pathways; Transition

Setting the Context

The Indian education sector holds a prominent position globally. From last two decades the Indian education sector has progressed massively in terms of enrolment and expansion of infrastructure not only at the school education level but also at the higher education level due to rapid economic growth, rising income and demographic bulge[i] (Ravi et al., 2019; Joshi& Ahir, 2016; Varghese and Malik, 2016; British Council, 2014). Indian higher education has experienced massive expansion not only in terms of enrolment but also in the number of institutions[ii]. As per the latest AISHE (2020-21), gross enrolment ratio has increased to 27.3 as compared to 26.3 percent in 2018-19 and thus constitutes 38.5 million students. Thus the exponential growth which is happening in Indian higher education is due to the increased demand for higher education. With the massification of Indian higher education more and more students opt to enter into higher education now days, many continue to be left behind, and inequalities persist in access to higher education, in general, and particularly in admission to elite institutions (Tilak & Choudhary 2019; Sabarwal and Malish, 2017). The most vulnerable and distressed individuals belong to the scheduled caste, females, from the low-income group and rural area and their population is more dominated who failed to participate at higher education level (Tilak & Choudhary 2019; Varghese et al., 2019; Sinha, 2018; Wadhwa, 2017; Tilak, 2015). The prevailing data highlights that the difference in the gross enrolment ratio across caste, sector and income quintiles is significant.[iii] Specifically, the gross enrolment ratio for Muslim students is only 16.4% which reflects the intensity of inequality which is prevailing across minority groups. So the statistics on the disparity concerning the gross enrolment ratio at the secondary and higher education level provides a reasonable basis for the investigation on the issue of decision making process and differential pathways followed by the students during the transition through higher education. From the policy context, the proposed study is timely as in order to realize the target set by the Indian government to achieve the gross enrolment ratio to 50% by 2035 and to make Indian higher education system more inclusive and equitable requires identifying the factors that lead some people not to enter into higher education. Moreover, within the Indian context, there have been limited attempts to study the differential pathways of students' transition to higher education. So, the present research study has examined the differential pathways followed by the students based on their intentions and actual entry.

Rationale of the study: The transition rate from school to higher education has increased in India in last few years due to targeted policies and schemes[iv] launched by Indian government at elementary and secondary education level. Therefore, an understanding of the differential trajectories followed by the individuals for transition through higher education is very important. Moreover, in the Indian context, limited studies (Tilak & Choudhary 2019; Tilak, 2015; Basant and Sen, 2014, 2010; Bhaumik and Chakrarbarty, 2011; Azam and Blom, 2009) have researched in this domain of knowledge. But none of these studies have shed light on pertinent question like how the choices have been made by the students at the transition juncture? With this backdrop, this research primarily aims to understand the decision making process and differential pathways followed by the students during transition from secondary to higher education. The article is organized as follows: literature review on the different domains of decision-making is conducted in the next section. In the third section, conceptual framework and methodology are discussed. In the fourth section, the results are presented. The discussion of the main findings and implications conclude the article.

Literature Review: In order to understand the differential pathways of students' transition through higher education, below schematic framework (Figure 1) has been used for literature review. One strand deals with dynamics of decision making process, second strand deals with the main stakeholders involved in the decision making process and third strand deals with the timeline involved in the decision making process of transition through higher education

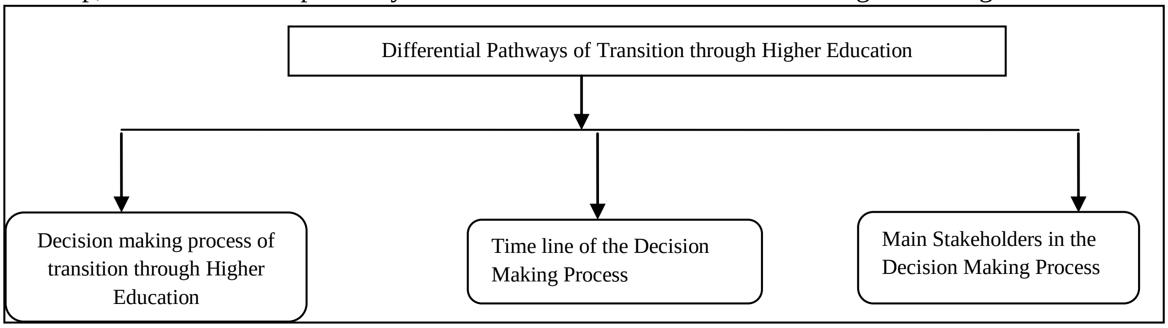


Figure 1. Schematic framework for review of literature

Decision Making Process of Transition through Higher Education: For every Indian student, the transition from school to higher education is very crucial. This decision is a major life decision as it impact on almost every aspect of an individual's future life. The choice at this transitional juncture is not simple of selecting one alternative over another. Several decisions are involved in this transition. The decision of transition through higher education is treacherous because this decision must be made by persons in their adolescent age. Moreover, long term planning is required because the whole world of students is shifting. Transition through higher education involves a process in which variety of factors become determinants over time (Jackson, 1982; Hooley & Lynch, 1981; Chapman, 1981; Dugan et al., 1976). Bloomer and Hodkinson (1997, p.146) highlighted that "*Decision-making is a complex nexus in which habitus, personal identity, life history, social and cultural contexts, actions and learning are inter-related*."

There is no universal experience of transition (Gale and Parker, 2014). The transitional journey from school to higher education may well be a time of anxiety, stress and risk for some students but not necessarily be experienced as a problematic for other students. This transitional journey will be different for all the students (Donnell et al., 2016). Transition necessarily need not be a period of crisis for every individual but at the same time may not be any more or less critical than other times keeping in view the given complexities and uncertainties of everyday life. There is a strong need to frame the discussion around transition altogether because the term simply "does not fully capture the fluidity of our learning or our lives" (Quinn 2010, p.127). Decision Making Process of transition through higher education by an individual is not a conventional economic decision but is a social decision (Akerlof, 1997). It may reflect to certain extent the assumptions of rationality of economic models (Wadhwa, 2017). However, considering the decision-making process of transition through higher education as purely an economic decision may not be enough to explain the differentials of decision among students. There are other factors that may turn transition through higher education as more of a social decision (Goldrick-Rab & Pfeffer, 2007; Gandara, 2002; Jordan, 2001). Thus this decision making dynamics of transitional journey from school to higher education is a complex dynamics in which variety of factors becomes determinants over time.

Active Players involved in the Decision Making Process: Decision making process of transition through higher education may be the independent decision of the individual, independent decision of parents or it can be the joint decision of both individuals and parents. There exist evidences from the literature that parents play more important role at predisposition stage in general and specifically in Indian context (Cabrera & La Nasa, 2000). It can be inferred from the school choice literature that as the child moves up in the ladder in the schooling process, he/she is gaining more prominent role in the decision-making process (Foskett & Brown, 2001). At the stage of higher education, although individual plays a prominent role, but the role of parents can't be ignored. By 16 the direct role of parents in choice has clearly been substantially reduced (Foskett and Brown, 2001). Findings of the literature where parents indicate that their child has played an important part in the choice process, but has, in effect, chosen from a short list derived jointly by parents and child (Davies, 2005).

Time line involved in the Decision-Making Process: Decision making process of transition through higher education is not an instant one but is long term. For many people the decision to enter higher education is, therefore, effectively taken several years beforehand (Gorard and Smith, 2007). Time dimension involve in this process also varies from individual to individual. Payne (2003) notes differences in the timing of decisions. Bloomer & Hodkinson (1997, p.41) think that decision-making is highly unstable. They found in their longitudinal study "that only 45% of the 69 people we were able to track were doing what they had originally chosen in Year 11. A further 5% who had been undecided when first interviewed, had eventually selected one of the options." Some individuals take this decision in the early years and others take it in the later years.

Theoretical Framework: The differential pathways of transition from school to higher education may be viewed as the by-product of the social and cultural capital of the individual. Differences in socioeconomic status lead towards the difference in the social and cultural capital. Family income, an important aspect of a family's socioeconomic status, directly affects students' transition from school to higher education. Moreover, the interaction of the family income with other factors such as the cost of educational materials hampers the academic performance of the students and thus having a direct bearing on the transitional decision of students (Bhorkar, 2023). Majority of the students from low socio-economic status occupy a disadvantaged position due to the lack of financial capital which leads towards limiting access to cultural and social capital at the primary and secondary school levels. The economic background provides a direct connection to the cultural and social capital of an individual. The individuals with high cultural capital usually use their capital to make contacts with others who are of the same economic group. This enhanced social capital proves advantageous especially in case of subsequent generation students to advance their career (Bourdieu and Passeron, 1979). Literature confirms the importance of cultural and social capital in a student's initial aspirations for transition into higher education (Hossler, Schmit and Vesper, 1999). The higher level of aspirations leads toward greater educational achievement. Moreover, hierarchical, unequal schooling structure in the Indian education system does not provide the level playing field and thus leads towards the unequal educational outcomes of the different segment of the students (Bhorkar, 2023; Wadhwa, 2017). As a result of differential academic ability and aspiration leads towards the differential pathways opted by different segment of students.

Research Questions of the study: The purpose of the present study is to investigate the differential pathways of Indian students transition through higher education. The present research has tried to answer the following research question:

1. What are the differential pathways followed by the Indian students for transition through higher education?
2. Who takes the decision of entry to higher education?
3. When the decision of entry to higher education has been taken?

Research Design and Method: The present research falls under the domain of descriptive survey research. The concurrent nested mixed methods procedure was embraced for this study to have a profound understanding of concerns related to decision-making process of transition through higher education and differential pathways followed by the different students. During interviews, voices of the students regarding their opinions on investment in higher education and decision making process of transition through higher education have been captured. Given the subjective understanding of the value individuals placed on higher education, and their variation in choice and attitude to higher education, the study gave greater importance to the meaning of participants' lived experiences, social interactions, and processes through which attitudes and the exercise of higher education decisions were constructed.

Selection of location for data collection: The geographical setting of the study was selected on the basis of some of the development indicators. Data was collected from the Fazilka district of Punjab region in Northern India. This district falls under the Malwa region of Punjab[v]. The district sharing a border with Pakistan has traditionally been devoid of facilities in general and specifically in the context of education. The area of the study covers following villages from the district Fazilka - Tahliwala Bodla, Dabwala Kalan, Chimnewala, Arniwala Shekh Subhan, Rana for collection of the sample.

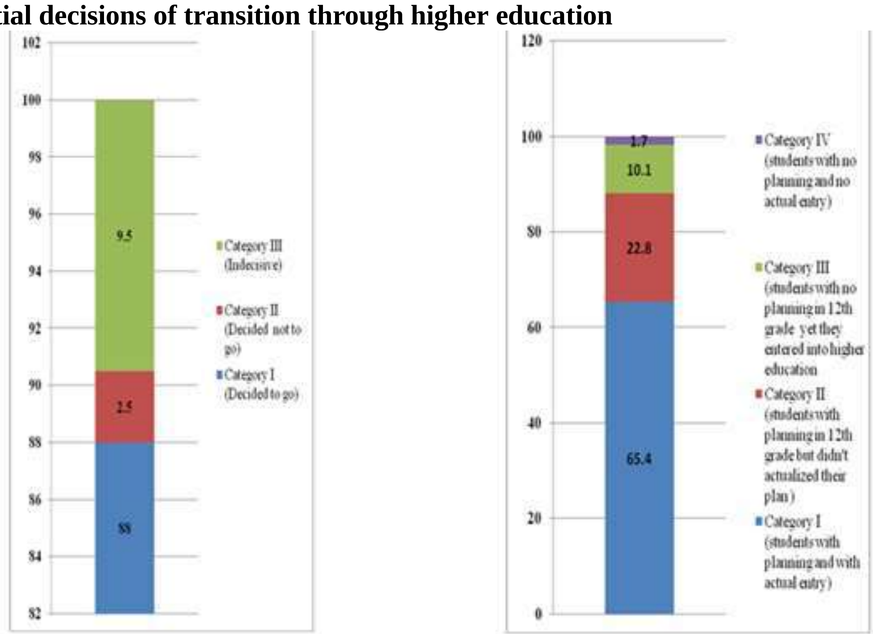
Sample of the study: The stratified random sample technique was used for collection of the sample. Strata were made by dividing the sample into rural and urban strata. Total ten schools which constitute five schools from rural area and five from urban area had been taken. Thus the total sample size was 930 students. Out of 930 senior secondary students, 332 students have been taken from five schools located in rural area and 598 students from five schools located in urban area.

Framework of Questionnaire: Self-constructed questionnaire and semi-structured interviews have been used as the tool for data collection. The first questionnaire focused on understanding the decision making process of transition through higher education specifically active stakeholders and timeline involved in the decision making process along with all the socio-economic indicators. The questionnaire had been divided into different sections. The first section deals with student profile about educational background of the student i.e. present education status and their future educational plans. The second section gathered information regarding family profile i.e. socio-economic background of the student i.e. parents' qualification, parents' occupation, income etc. in order to find the relevance of socio- economic determinants in building the aspirations of the students. Third section deals with questions related to the educational decision of the senior secondary students and factors influencing such decisions. The second questionnaire focused on understanding the factors determining actual entry. The second questionnaire focused on understanding the differential trajectories followed by the students during the realization stage. The questionnaire has been validated by taking into account the opinions of the experts and reliability coefficient has been found be 0.86 in order to standardise it. Detailed semi-structured interviews of students were used to understand the differential pathways of the individuals' transition through higher education.

Data Collection Procedure: Data has been collected twice in the present research. In the first phase, senior secondary students from their schools have been approached to know about their plans and their decision making process of transition through higher education. During the second phase, the same set of students were traced after a gap of six months to know who follows which pathway at the transitional juncture and why.

Analysis: Descriptive statistics revealed that decision making process of transition through higher education involved two stages. The decision to entry (planning) was the first stage and actual entry (realization) was the second stage as highlighted in figure 2. Depending on the response of the students, three categories were identified at stage I. Below figure 2 reflects that 88 percent of the students' planned to go for higher education right after completing their higher secondary and falls under category one. Category two comprises 2.5 percent of the students who had planned not to enter into higher education. 9.5 percent of the students were indecisive regarding their entry into higher education and thus formulated the third category. At stage II, four categories of the students have been identified on the basis of response of students. The first category comprises 65.4 percent of the students who planned and actually entered into higher education. 22.8 percent of the students' had planned in senior secondary but didn't actualize their plan and falls under category two. Category three comprises 10.1 percent of the students with no plan in 12th grade yet they entered into higher education. 1.7 percent of the students didn't plan in the 12th grade and thus not entered into higher education falls under the fourth category.

Figure 2: Differential decisions of transition through higher education



Stage I: Decision to Entry (Planning) **Stage II: Actual Entry (Realization)**

Different categories of the students were analyzed with the help of semi-structured interviews to get a comprehensive understanding of the differential pathways of transition through higher education. Differential characteristics have been identified in the different segment of the students and the influential factors which the students mentioned in their semi-structured interviews have been discussed below. Some students could be placed in different groups due to some overlapping. But within each group, generally, the motives of the students for transition through higher education were similar.

1. "I Knew That the Entry into Higher Education Was the Subsequent Step"

Students who felt that the transition to higher education was the usual next step after finishing higher secondary had in common that going for further studies was seen as an anticipated, predictable, linear next step. These students did not think about the trajectory of not opting for higher education. The trajectory which leads towards higher education was rather a non-decision in their life, as one of the participants mentioned:

Simran: Transition from school to higher education was the subsequent step. It doesn't involve any conscious decision making.

Gurpreet: Not going for higher education was not there in my case. But the real decision was where to go and which subject s to study.

Sonia: During my school days, it was clear that I shall pursue higher studies but the clarity regarding the subjects was not clear.

The absence of decisions regarding transition through higher education was present in the narratives of the students who fall under first cluster. During the interviews these students voiced their opinions about how they chose a particular stream/subject or institution where real decision making comes in. The students under this cluster entered into higher education as a result of embryonic expectation from their family or school. Transition from school to higher education is a part of a "normal biography" for these students (Du Bois Reymond, 1998; Wadhwa, 2017). Students who follow the trajectory of normal transition pathway of higher education are grouped into three clusters based on their differential motivations and the influential factors. (I) Pathway of higher education: as clear and natural step, (II) Pathway of higher education: as something necessary to have, and (III) Pathway of higher education: due to career choice. Narratives of students who fall under each of these groups have been discussed below in detail to understand the differential pathways followed by the individuals across the different socio-economic group.

(I). No particular reasons were mentioned for opting the pathway for higher education, and no explicit influence could be detected. But the influence of her elder sister is very clear in the narratives of Meenu, whom she would be following.

Meenu: My elder sister is pursuing her further studies at Punjabi University, and I always wanted to be there because I heard a lot from her and I always wanted to be where she is.

Shonal: My both the parents are government employees. I have two elder brothers and I am the younger one. One of my brother is pursuing engineering and the other one is pursuing his degree in agricultural sciences. I have always looked towards my brothers and they have always guided me.

Kavita: I belong to an educated family. My father is a doctor and my mother is a teacher. Since from the childhood, it was embedded in my mind that I shall pursue higher studies from a good institution.

The narratives of Shonal and Kavita explicitly reveal the significant role played by their family during this transition process and depicted how higher education is part and parcel of 'normal biography' of these students. The familiarity with the field of higher education because of the rich habitus and predominant social and cultural capital mark makes their transitional journey smooth.. The decision making process of transition from school to higher education for these students is rational, and at the same time, it is not. These middle-class students 'move in their world as a fish in water' and 'need not engage in the rational computation to reach the goals that best suit their interests' (Bourdieu, 1990, p. 108).

III. The influences of school and parents have been highlighted in the whole journey of transition into higher education by the students in this cluster. But in contrast to above two clusters, these students had a heightened sense of agency. These students had opted for the pathway for higher education to achieve what they planned.

Rakesh: I wanted a degree in law.

Sumesh: I always wanted to become a doctor since from early age…

Manish: I never questioned myself…regarding pursuing higher studies

The time perspectives concerning the decision-making process also vary among students across clusters. For first two clusters, the decision was embedded in the familial or school context whereas, for the last cluster, the decision was firmly connected to the future by recalling the past. Below table 1 depicts the characteristics of students who follow 'Normal Transition Pathway' through higher education.

Table 1: Characteristics of students who follow 'Normal Transition' Pathway

Normal Transition Pathway	
Normal/Natural Transition Pathway	Decision to go for higher education is taken for granted
	Embedded choosers
	Thrusting Choosers
	Choice is part of a cultural script, a ‘normal biography’
	Finance is not an issue
	Extensive support (cultural and social capital)
	Choice is based on extensive and diverse sources of information
	Choice is specialist/detailed
	A diverse array of variables are deployed
	Choosing is long-term and often relates to vivid
	embedded in a ‘deep grammar of tradition of higher education aspiration’ which makes higher education normal and necessary
	Parents as ‘strong framers’ and active participants
	Moving away from home is seen by many as part of the experience of higher education

The students who follow the trajectory of normal transition pathway belong to the middle and higher ends of socioeconomic origin have a good stock of social and cultural capital, in general, prefers to opt for higher education (McDonough, 1997). Such students are subject to subtle and "diffuse incitements" (Bourdieu and Passeron, 1977) to further study. Students fall under this group were from the private English medium schools, and they never thought of not opting for higher education.

2. "I Decided To Enter Into Higher Education Because…"

The students under this cluster made a conscious decision for transition from school to higher education and exhibited characteristics similar to the ‘choice biographies' (du Bois-Reymond, 1998). Reymond (1998) regarded the ‘choice biographies' as marked by the "tension between option/freedom and legitimation /coercion". Students in their narratives highlight the multiple and divergent motives of choosing the trajectory of higher education along with the factors that influenced their decisions. These students carefully analyzed their decision on available choices and chose their particular pathway. A higher level of the agency has been exhibited in the narratives of the students under this cluster.

Ramesh: …both my parents do not have the experience of higher education... so they wanted me to work in the village on our shop...in this situation I cannot afford to go for higher education… not to do one because my mother and my father also did not. I want to go to the city and pursue my higher education over there and want to work there. I don't even want to hear about working and staying in the village for the whole life.

Shyam: I am pursuing higher education because this is what I wanted. I want to "do something more, and to do something higher education is needed."

Sachin: My father is working as an a famer and my mother is a home maker. In my family no one has ever gone to college or university. But they want me to go to college. They are ready to support me in my own journey of life.

Sunaina: Parental pressure is the most significant factor which drives me to go for higher education. My mother strongly values higher education, and encouraged me to go for higher education. She always stated, "I really wanted to go to college when I was a high school student, but I was unable to attend college because I grew up in a poor family. I really want you to go to college and want you to expand your horizons.

Ramesh had carefully chosen for a different pathway in contrast to what his parents opted. He considered the trajectory of higher education as a crucial step to secure a better future. Moreover, he wanted to go to a different place and not planning to come back to his village, so success is highly place-dependent in his context. Place perceptions within this cluster of students were divergent. The home appeared as a place they wanted to escape from, while school was the place where they gained strength and support to opt for the higher education route. They connected their past and future. The narratives reveal that these students considered higher education as an essential milestone towards their journey for a better future. Below table 2 depicts the characteristics of students who follow ‘Choice Transition Pathway’ through higher education.

Table 2 Characteristics of students who follow Choice Transition Pathway

Choice Transition Pathway	
Choice Transition Pathway	Decision to go for higher education involves a deliberate act
	Includes both embedded and Contingent choosers
	Trusting choosers
	Choice is part of 'choice biography'
	Finance is a concern
	Minimal support (social capital) is used
	Choice is based on extensive and diverse sources of information
	A diverse array of variables are deployed
	Choice is general
	Choosing is long-term and often relates to vivid
	Rational choices

Category II: The group of students who failed to stick on their planning and thus failed to do a successful transition from school to higher education falls under the heading of '*negative shifters*'. A lot of external factors either in the form of financial constraint or low academic achievement acted as roadblock and thus compelled these individuals to drop their original plans.

Chandini: I have a large family. My father is an agricultural labour and mother is a house wife. I have two elder sisters. My father is worried about their marriage so they want me to help him financially rather than pursuing the higher studies.

The roadblocks either in the form of structural constraint or financial constraint discouraged their individuals from treading on the path of higher education. This category predominantly constitutes first- generation learners. The support which these students receive in the form of cultural and social capital is little or none. Sometimes the parents are supportive but they failed to help their children in their transition journey because of lack of experience and knowledge. One other major roadblock identified from the narratives is low ability of the students. These students have been identified in the literature as "unstable choosers" who were easily swayed (Macrae et al., 1996).

Category III: The group of students who failed to stick on their planning of not going for higher education but did a successful transition from school to higher education falls under the heading of '*positive shifters*'. The transition from secondary into higher education of these students is due to a happenstance event. Macrae et al. (1996) called them "choice avoiders" who "tend to delay the choice process and were low achievers. For them, the choice was threatening, highlighting their marginalised status, and they observed it more comfortable to inhabit a position of vagueness, indecisiveness and drift."

***Sahildeep: I** belong to a family with no higher education experience but my parents wanted me to go for higher education. Apart from the family background, my friends and teachers are guiding me towards the higher education route. I am worried about the grades in the senior secondary examination which are necessary to pursue higher education. I will go for higher education once I will achieve the desired grades. My teachers have also motivated me to pursue for higher studies.*

Hasanpreet: My family's financial situation is not good so my parents are not in a position to finance my higher studies. If I receive the scholarship from any of the institution then I shall pursue my studies as my goal is to become independent and to support my family. I can do this only when I shall be having the degree of higher education. Even I talked with my uncle and he promised me to support in my studies. So I am very hopeful now. I shall take the *admission in the college near to my home.*

Below table 3 depicts the characteristics of students who follow 'Choice Transition Pathway' through higher education.

Table 3 Characteristics of students who follow 'Happenstance Pathway'

Happenstance Transition Pathway	
Happenstance Transition Pathway	Decision To Go For Higher Education Involves A Happenstance Event
	Contingent Choosers- First Time Choosers With No Family History If Higher Education
	Trying Choosers
	Finance Is A Key Concern And Constraint
	Choice Used Minimal Information
	Choice Is Distant Or 'Unreal'
	Few Variables Are Called Up
	Choice Is General/Abstract

	Minimal Support (Social Capital) Is Used
	Choosing Is Short Term And Weakly Linked
	Parents As ‘Onlookers’ Or ‘Weak Framers’
	Avoid Risky Decision
	Geographic Limitation Is Present In Decision Making

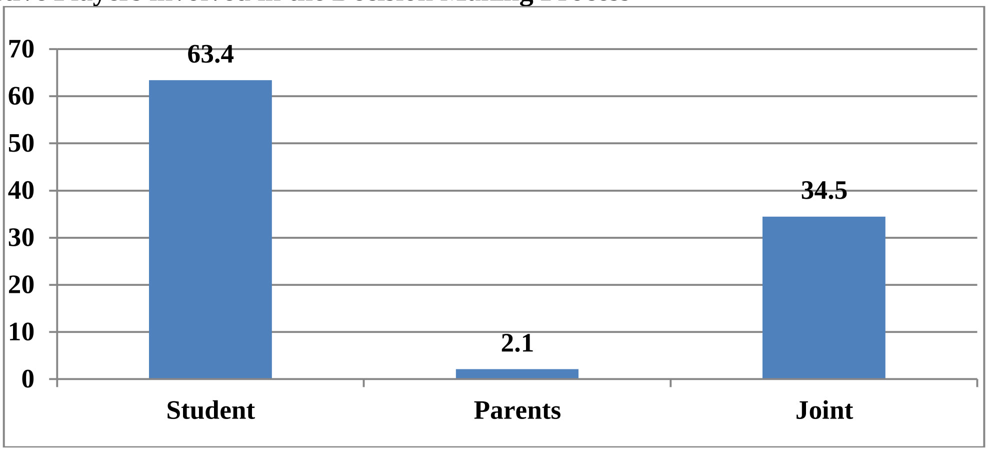
Role played by significant others is determining their pathway. The aspirations of these students warmed up in the transition period and role played by the teachers are quite significant as highlighted in the literature (Rosenbaum et al., 2006).

Category IV: This category named ‘***negatively focused***’ constitute those students who have no initial intention to follow the transitional journey from school to higher education and thus followed their planned pathway. This category constitutes primarily first generation students. Narratives of the students highlight that structural and financial constraints played an important role in the students' decision-making at the transitional juncture of school to higher education level.

Active players involved in the Decision Making Process

Below figure 2 highlights that 63.4 percent of the students themselves decided for entry to higher education. 2.1 percent of the students stated that their parents had taken the decision regarding their entry to higher education. The decision to enter into higher education was the joint effort of both student and parent and constituted 34.5 percent.

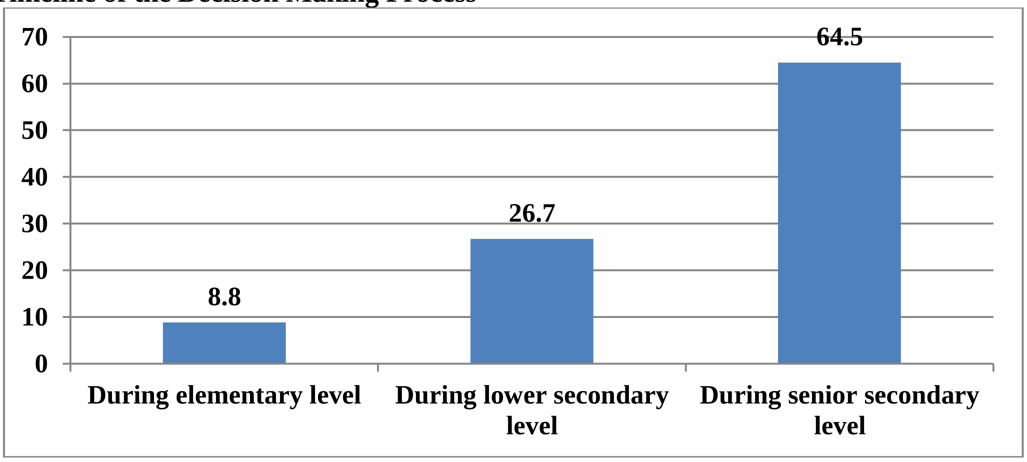
Figure 2: Active Players involved in the Decision Making Process



Although expected, this statistic represents a significant swing of the pendulum of choice towards the individual pupil. Parents also play a significant role in the children’s decision of entry to higher education and literature supports the finding of the present study (Chapman, 1981; Bradshaw et al., 2001; Ceja, 2006).

Timeline involved in the Decision Making Process: The descriptive analysis reveals quite interesting scenario regarding when a student takes the decision of going into higher education. Below figure 3 highlights that 8.8 percent of the students had decided for the entry to higher education at the elementary level or before. 26.7 percent of the students decided to go for higher education at the lower secondary level. At the senior secondary level, 64.5 percent of the students decided to enter into higher education. An analysis within, the senior secondary level reveals that 60.2 percent of the students decided during the first year and 39.7 percent of the students decided during the second year for entry into higher education.

Figure 3: Timeline of the Decision Making Process



The cross-tabulation of the timeline of the decision and previous academic achievement highlighted that the majority of the low and medium achievers decided to go for higher education at the senior secondary level in contrast to high achievers who decided at the earlier stages. Moreover the cross-tabulation of the timeline of the decision-making and educational level of the father is highlighted that education of the parents specifically the father's education played a significant role in the decision making process of students transitional juncture.

Summary of findings, implications and conclusion: The findings of the study highlights that decision making process of transition through higher education is complex and involves different stakeholders and timeline in Indian context. The three differential pathways of transition through higher education have been identified and highlighted the characteristics associated with each trajectory group. Four different categories of students were identified while analyzing the differential pathways of transition through higher education: *Positively Focused, Positive Shifters, Negative Shifters and Negatively Focused*. Below table 4 highlights the pathways followed by the different segments of students during transition through higher education along with the timeline and the main stakeholders involved during this transitional juncture.

Table 4: Differential pathways of transition through Higher Education

Alias	Differential Pathway	Decision Maker	Timeline of the decision
Meenu	Normal	Joint Decision	During Elementary Level
Shonal			
Kavita			
Rakesh			
Manish			
Sumesh			
	Positively Focussed		
Sachin		Joint Decision	During Elementary Level
Sunaina			
Ramesh			
Shyam			
	Positive Shifters		
Sahildeep	**Happenstance**	Individual	During senior secondary level

Under the positively focused category, two routes could be identified. For the first set of students, transition through higher education is often linked to the particular career trajectories and taking admission into those streams/courses which opens the door for prestigious professions or highly paid commercial occupations. Another set of students comes under the umbrella of '**Positively Focused**' category and follow the choice transition pathway through higher education and displayed characteristics similar to the 'choice biographies' identified by du Bois-Reymond (1998, p. 65). The students under this group described the multiple, sometimes divergent, motives and factors that influenced their decisions, but ultimately highlighted that it was a choice, usually their choice to study further. These students did not refer to transition though higher education as a straightforward step, like the students presented in the previous part, but rather mentioned that they reflected on their options and made a decision to enter into higher education, consequently displaying higher levels of agency than the previous group. Some of the students ended up with the higher education due to a happenstance event, not because it was a natural step and neither because they opted to go and labelled as '***Positive Shifters***' in the present study. This category constitutes first-generation students primarily. These students have been identified as 'contingent choosers. Spatial horizons of action are limited for these students, partly for reasons of cost and partly as a result of structural constraints.

Another pertinent finding is that how students reconstruct their involvement in the decision-making process of transition through higher education. Senior secondary students, even though they admitted being influenced by the parental background, they also tended to highlight their own involvement more in shaping their lives especially who are the first in their family to choose the pathway of higher education. Students under 'Shifters' category which comes predominantly from low socio-economic status decided to enter into higher education by themselves. Findings of the present study are well supported by literature which suggests that amongst working-class families the decision is often delegated much more to the children themselves (Reay and Ball, 1998 cited in Foskett and Brown, 2001). In Contrast, in case of 'Positively Focused', category the decision making process of transition through higher education was the joint decision of the student and the parents. With respect to timeline involved in the decision making process, 'Positively Focused' category of students decided to go for higher education during the early stages of life, i.e. at the elementary and lower secondary level. Students who fall under 'Shifters' category decided to opt the pathway of higher education at the later stages, i.e. at the senior secondary level.

Some of the important implications have emerged that should be considered within the context of the current study's limitations. The sample in the present study was limited to the Fazilka district of Punjab region in Northern India. Despite this limitation, implications for the Indian government and institutional leaders are quite pertinent. First, conceptualization of access needs to be broadened by taking into account the decision making process. By focusing on the enrolment in higher education as the outcome variable, we may be missing an important step in this process. A lot of factors such as socio-economic status, academic preparation, family expectations, parental encouragement and peer influence play a significant role in the transitional journey from school to higher education. It is important to understand the long-term vulnerability as well as turning points and disruptions of the segment of students which fall under shifters category through their social context and the competing demands on them. Second, existing homogenous approach is not going to work to deal with the heterogeneous segment of students. The diversity of students that is increasing in the higher education institutions is leading towards diversification of pathways followed by the heterogeneous segments of students (Hass & Hedjar, 2020; Weiss and Roksa, 2016; Goldrick-Rab, 2006). The need of the hour is that more knowledge about their differential trajectories is required if the Indian government want to achieve the goals and targets set in the National Education Policy-2020.

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Endnotes:

[i] By 2020, India will have one of the youngest populations in the world, with an average age of 29 years. India will outpace China in the next ten years as the country with the largest tertiary-age population (British Council, 2014)

[ii] Over the past one decade, the tertiary student population has increased from 18.5 million in 2009 to 37.4 million in 2019. The number of universities likewise grew from 440 in 2008-09 to 993 in 2018-19 while the number of colleges reached nearly 39931(AISHE 2018-19).

[iii] The gross enrolment ratio of scheduled caste students is 23.1 and for scheduled tribes students is 18.9 percent. whereas the gross enrolment ratio for male students is 29.3 percent whereas for female students it is 24.9 percent. In rural areas the gross enrolment ratio is 25.7 percent in contrast to 33.4 percent of students residing in urban areas (AISHE 2020-21).

[iv] RMSA In the current scenario, Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) were subsumed under the umbrella of Samagra Shiksha Abhiyan with the aim to enhance the access, equity and quality at the school education level.

[v] Malwa is the largest region of Punjab, both geographically and politically which is located in the south of the Punjab state of India.

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Role of English Language in Digital Marketing

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Abstract:

In Today's globalized world English has become the lingua franca of the digital marketing realm. English plays a significant role in shaping consumer perceptions, facilitating global communication and driving brand engagement. This research paper examines the role of language especially English in digital marketing strategies. It aims to explore the multifaceted role of English in digital marketing, examining its impact on global reach, content creating and brand communication. By delving into various aspects such as SEO optimization, social media marketing and cross cultural communication, this paper aims to provide insights into the significance of English language proficiency for successful digital marketing.

Introduction:

Digital marketing is the promotion and marketing of goods and services to consumer through digital channels. The digital channels include internet, mobile devices, social media platform etc. Digital marketing includes approaches and tactics to reach the target audience. The goal of digital marketing is to improve brand awareness, drive sale and business growth. To achieve this goal language is most powerful means and medium for marketers. Language is one of the most important aspects that cannot be avoided in the field of trade and Commerce. In today's digital world language serves as a powerful tool for marketers to connect with large audience on various online platforms. English has emerged as the language of the internet, connecting people, cultures, and businesses worldwide. Its widespread use ensures global reach, access to information, and opportunities for online learning and networking. English as a global Language is more important than local language as it can make greater impact in influencing bigger markets across the globe. With the expansion of social media and other digital channels marketers have abundant opportunities to attract and influence consumers through linguistic techniques and strategies. This paper delves into multi faceted ways in which English language impacts digital marketing efforts and proposes various strategies for linguistic content to achieve marketing objectives. English is considered a global language due to its widespread use and influence across the world. There are several reasons why English has achieved this status.

Global Reach:

English has been spread through colonization, trade and the establishment of British Empire.This laid the foundation for its global reach. English is dominant language of the internet and Information technology. Many programming languages, software and websites are predominantly in English contributing to its global reach. English is considered the lingua franca of the internet, with over 25% of all websites using English as their primary language. This global reach allows marketers to communicate with a vast and diverse audience, transcending geographical boundaries. As a dominant digital language English plays a crucial role in connecting people, cultures and business across the globe.

Accessibility:

English is taught as a second language in many countries, making it accessible to a large portion of the world's population. Proficiency in English is seen as a valuable skill for accessing higher education, job opportunities and international communication. A vast majority of internet content, including websites, articles, and social media, is in English. Proficiency in English enables individuals to access a wealth of information and stay updated on global news and trends As a result English-language content can be understood by a broad audience, enhancing the effectiveness of digital marketing efforts.

Credibility and Trust:

Language shapes brand identity and perception in the digital realm. The language used by a brand establishes its personality and tone. The language whether it is formal, informal, casual or authoritative used by digital channels reinforces the brands identity. For example a brand targeting kids might use story or simple sentences while financial or academic institution might adopt formal tone to convey trust and reliability. Content presented in well-written English is often perceived as more credible and trustworthy by audiences worldwide. This perception can positively influence consumer attitudes towards brands and products, ultimately leading to increased engagement and conversions. The successful brand messaging strategies align with target audience references and values. Consistent language used for social media post, website copy or email newsletters helps to build trust and recognition. The selection of words to express exact meaning with objective of inducing people is very essential. It is very important for the marketer to use business language to create a huge impact in the minds of customers. Ambiguous words and inconsistencies can confuse customers so messaging should align with brands values and mission. However it is language that helps to recognize a product and remember it. To attract more customers or consumers the brand should understand the demographics, interest and preferences of the audience. This could be done by using specific terminology, cultural references, storytelling or humour that appeals to the audience. As there is a huge competition among marketers, a brand can differentiate them by using a unique tone and style. Appropriate language can lead a brand ahead of all its competitors. Language helps the consumers to compare different products and choose the best product for them. English language is known for its rich vocabulary. Without English language a brand cannot make a way into consumer market. Rich vocabulary in English helps the brand to attract consumers easily. Compared to English many languages across the globe have limited vocabularies making the advertisers easier in terms of choice of words and meanings. The advertiser needs to choose appropriate words to gain the customers attention. The language used in customer enquiry, feedback forms, and response on digital platform helps to build trust and credibility among consumers. Prompt polite communication can build a brands reputation for excellent customer service. Unprofessional, rude language can damage a brands reputation. Clear and transparent language builds trust and credibility with consumers. Authentic content that communicates honestly and openly about the brand, its products, and its values helps to establish a trustworthy relationship with the audience. In essence language is a powerful means for shaping brand identity, building relationship with customers and attracting more consumers in the digital realm. Simplicity, authenticity, relevance and suitable use of words are the key principles to achieve brand objectives.

Cross-cultural Appeal:

Social media platforms have become powerful tools for networking and building relationships. English proficiency facilitates effective networking with people from different countries and cultures. The internet brings together people from diverse cultural backgrounds. English proficiency promotes cross-cultural understanding, fostering harmony and cooperation in the digital space. English-language content can be adapted to resonate with diverse cultural backgrounds and preferences. In globalize digital platform language must be culturally sensitive to avoid misunderstanding or offence. Multinational companies or brands targeting diverse audiences must consider linguistic differences, idiomatic expressions and cultural reference to ensure effective communication. Marketers can tailor their messaging to specific regions or demographics while maintaining a universal appeal that transcends cultural barriers, facilitating engagement and brand loyalty.

Influence and Persuasion:

Language is one of the most important tools to be used in digital marketing. English is a versatile language that allows marketers to craft persuasive narratives, compelling stories, and impactful calls-to-action. Storytelling through language is very effective method as it can evoke emotions and forge connections with consumers. A brand can use various techniques to present their values, identities and create everlasting experience in the minds of consumer by storytelling method. Story telling method includes blog post, videos and social media campaigns. Its expressive nature enables the creation of emotionally resonant content that can inspire, motivate, and persuade audiences to take desired actions, such as making a purchase or subscribing to a service.

Technological Advancements:

English serves as a common language for international communication, collaboration and dissemination of research and technological advancement. It enables scientist, engineers and developers from different countries to work together seamlessly. Many technological innovations and digital marketing tools are developed in English-speaking countries. As a result, proficiency in English is often essential for staying abreast of the latest trends, strategies, and technologies in the digital marketing landscape. English speaking countries have produced many of the world's leading technology companies. As a result English has become the language of the global tech industry.

SEO Benefits:

English-language content has a competitive advantage in search engine optimization (SEO) due to the dominance of English keywords and phrases in search queries. By optimizing content for English-language search terms, marketers can improve their visibility and ranking in search engine results pages (SERPs), driving organic traffic to their websites. The importance of English in search engine optimization (SEO) and content ranking is paramount. English is the lingua franca of the internet with a wide online content being in English. As a result many search engines prioritize English language content in their algorithms. Search engines depend on keywords to understand the content of web pages and match with them with user queries. English keywords are the most commonly used and understood by search engines. English language queries provide search engines with user intent understanding which allow them to get accurate and relevant results. The main advantage of English language is that its queries are more specific and structured than those in other languages. English content has a wider reach and is more assessable to a diverse range of audiences. The appropriate use of language influences a brand digital visibility through search engine optimization (SEO). A brand can influence their search engine rankings and attract more consumers by using appropriate keywords and phrases into website content block post and social media captions. Large content resource material is available for writers and creators in English. It includes guides tutorial and best practices for SEO which are mostly available in English. Overall English plays a central role in SEO and content writing due to its prominence on the internet which influences from keyboard optimization to user intent understanding and acquisition. Overall, the English language plays a pivotal role in digital marketing by enabling brands to connect with global audiences, establish credibility, drive traffic and conversions, and stay competitive in an increasingly interconnected world. By leveraging the persuasive power of English, marketers can effectively communicate their brand's message and achieve their marketing objectives in the digital realm.

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Harnessing Power BI for Historical Natural Activity Analysis and Visualization

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Abstract:

Data visualization is the process of understanding data via the use of visual contexts. It is a component of data analytics and is usually done after data rectification. Visualization is increasingly crucial in all aspects of corporate intelligence and analytics. Data sets can be visualized in a variety of ways, including interactive and dynamic approaches. Data sets can be visualized in a variety of ways, including insights. This study focuses on the visualization of earthquake, tsunami, and volcano data using the Microsoft Power BI tool. The paper also discusses the many data sources available in the Tool and how to generate different types of visualizations.

IndexTerms - Analytics, Visualization, Power BI, Natural Activities.

Introduction:

A volcano is a breach or split in the Earth's surface where lava or molten rock can escape. An eruption occurs when magma or molten rock emerges from a volcano. Volcanoes arise when molten rock rises to the surface from deep underneath. Volcanic eruptions may wreak massive devastation. Volcanoes frequently develop at the margins of these plates. The majority of volcanoes on Earth are located underwater, particularly where tectonic plates are diverging or converging. Large eruptions can change atmospheric temperature by obscuring the Sun and cooling the Earth's troposphere with ash and sulfuric acid drops. Historically, large-scale volcanic eruptions have been followed by volcanic winters, resulting in devastating famines. Plate tectonics theory divides the Earth's lithosphere, its solid outer shell, into sixteen major and numerous smaller plates. Because of convection in the underlying ductile mantle, they move slowly, and most volcanic activity on Earth occurs at plate boundaries. The most famous picture of a volcano is a conical mountain erupting lava and lethal vapors from its top crater; however, this only depicts one of the many different types of volcanoes. Volcanoes have far more complex characteristics, and their structure and behavior are influenced by a range of factors. Earthquakes and volcanoes occur in the same regions on the earth. An earthquake is a rapid and strong shaking of the ground that can cause significant damage. The Earth's surface is continually moving and changing, which can lead to major calamities. Earthquakes occur near the Earth's surface and cause shaking, ground displacement, and other changes. When a large earthquake's epicenter is offshore, the seafloor may shift enough to cause a tsunami. Earthquakes can also produce landslides. In its widest sense, an earthquake is any seismic event that creates seismic waves, whether natural or caused by people. Tectonic earthquakes occur anywhere on the world when enough elastic strain energy is stored to cause crack propagation along a fault plane. Earthquakes may demolish structures. The name "tsunami" is derived from the Japanese tsunami, which means "harbor wave." Tsunamis can happen when the sea floor suddenly deforms and vertically displaces the water above it. Tectonic earthquakes are a type of earthquake caused by the deformation of the Earth's crust; when these earthquakes occur under the sea, the water above the affected area is pushed out of equilibrium, and tsunamis can travel hundreds of kilometers and reach vast heights. Engineers are continually looking for methods to make structures stronger and safer in disaster-prone locations. People who live in rural places must exercise extra caution since they may not have access to warning signals or be able to reach safety as fast. As natural disasters become more common, humanity are struggling to deal with the aftermath. The study article investigates some of the most significant natural catastrophes that have happened on the major continents, including earthquakes, tsunamis, and volcanoes. To visualize the data, our research employs massive data volumes and rich semantics. The article also lists some of the most heavily affected locations by natural catastrophes. The usage of Data Visualization and Data Analysis makes it extremely user-friendly. It meets the demands for both locational and descriptive data.

Analysis:

Data analysis is the act of cleaning, manipulating, and modelling data in order to extract useful information for commercial decision-making. The purpose of data analysis is to extract useful information from data and make decisions based on that knowledge. The term "big data" is widely used in debates about data analysis. Data analysis is essential for transforming large amounts of data into useful information.

Visualization:

Data visualisation converts comprehensive data into intelligible, visually appealing, and relevant business information. Today's data visualisation solutions, which use external data sources, not only allow you to see your KPIs more clearly, but they also unify data and use AI-driven analytics to identify correlations between your KPIs, the market, and the world. Data visualisation is the process of comprehending the importance of data using visual context, and it is a component of analytics. There are numerous approaches to visualise data, such as interactive and dynamic in nature, and when it comes to visual context, there are a range of items such as plots, graphs, slicers, stacked column charts, histograms, bar charts, tables, matrix, and other forms of visual contexts.

Objectives:

As natural disasters become more common, humans find it more difficult to deal with the aftermath. This project is intended to chronicle some of the most notable natural disasters that have struck the major continents, such as earthquakes, tsunamis, and volcanoes. Our project visualizes large amounts of data using incredibly sophisticated semantics. Our study also identifies some of the most disaster-affected places. We utilized Power BI as a visualization tool in this work. The combination of Data Visualization and Data Analysis makes it extremely user-friendly.

Methodology

Power BI:

Power BI's "obtaining data" function enables users to retrieve data from a variety of sources, including files, databases, Azure, online services, and more. The section labelled "specifics of data sources" goes into further detail about each sort of data source. After choosing the appropriate data sources, users must retrieve the relevant information by running queries or selecting files from directories. The specified data will be loaded into Power BI. Before creating a report, users should use Power BI's "edit queries" option to verify and clean the data for errors. Following the selection of your data sources, you must gather information using queries or by selecting files from folders. This information will be imported into Power BI, and you should utilize the edit queries option in the data area to check for errors and clean it up before producing a report. You may also utilize the tool's relationship section to connect several datasets. To create a report, pick the report option, which will bring up a blank white page on your screen. You may now generate your own report. To add conditional columns or more data to datasets, use the update queries tool. Custom visuals and Power BI graphics, like as stacked bar charts and stacked column charts, are used to visually represent processed and corrected data. Using the Publish option, the report is uploaded to Power BI Services. To use Power Bi Services, we must first log in. An embed link may be sent to anybody and used to embed dashboards for end users to see on any website.

Earthquake: Earthquakes happen fast, brutally, and without warning. Anticipating potential dangers and taking safeguards early on can reduce the chance of catastrophic earthquake injury or death. This study is being carried out in locations throughout the world that were severely affected by earthquakes between 2001 and 2017.

Figure 1: Location map of the study area, with shaken areas (orange and red circles).

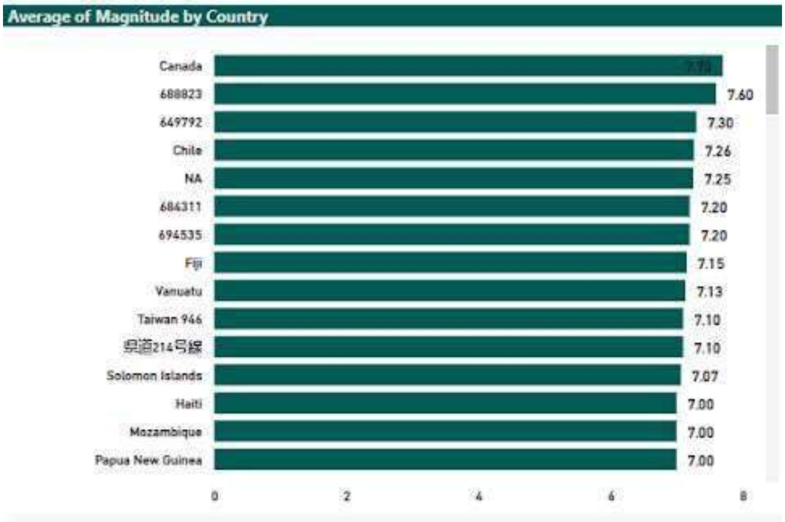

Figure 2: Countries who has experienced the highest amount of magnitude. Canada, with a magnitude of 7.70.

Magnitude and Depth: The magnitude and depth of an earthquake are two important factors in assessing earthquake hazard. The magnitude and depth of an earthquake indicate its potential for disaster.

Because the power of shaking from an earthquake decreases with increasing distance from its source, shaking at the surface from an earthquake at 500 km depth is significantly less than if the same earthquake occurred at 20 km depth. When a thick oceanic plate collides with a less dense continental plate and sinks under it, the deepest earthquakes occur within the core of subducting slabs, which are oceanic plates that sink into the Earth's mantle. Both the 2004 Sumatra earthquake and the 2011 Japan earthquake were produced by plate boundary contact between two of these plates, which are only active at shallow depths of roughly 60 km. However, in deeper subduction zone settings where oceanic slabs are relatively cool in comparison to the surrounding mantle, core faults remain brittle and can trigger earthquakes as deep as 700 km.

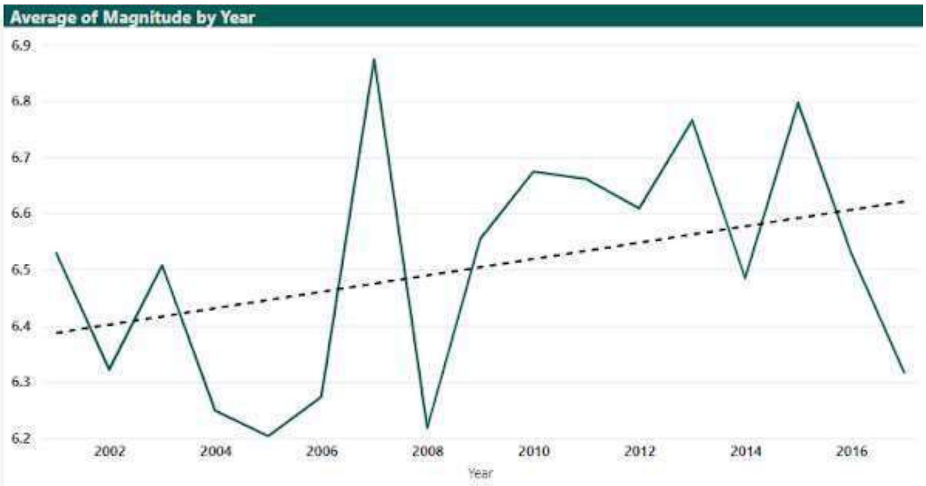

Figure 3: The highest magnitude was experienced between the years 2006 and 2008.

The magnitude of an earthquake is measured. Magnitude is expressed using decimal fractions and whole values. A moderate earthquake has a magnitude of 5.3; a severe earthquake has a magnitude of 6.3. Because of the scale's logarithmic base, each whole number increase in magnitude equates to a tenfold increase in recorded amplitude as measured by a seismograph. The magnitude of an earthquake affects the amount of seismic energy produced at its hypocenter. It is based on the magnitude of earthquake waves measured by equipment that share the same calibration. As a result, an earthquake's magnitude may be expressed as a single instrument-derived value. The Richter scale measures the magnitude of an earthquake. The scale's digits run from one to nine. Earthquakes of magnitude 7 or greater may be exceedingly devastating, causing damage to both people and property.

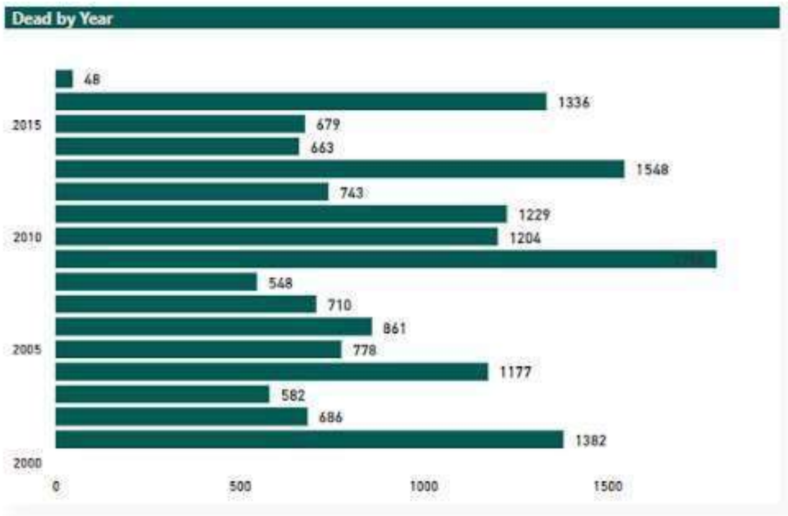

Figure 4: The year 2009 has witnessed the maximum death rate.

Damage:

We investigate the earthquakes that killed over 1000 people between 2001 and 2017. We create a framework for studying earthquake disasters in various countries from 2001 to 2017, with an emphasis on the seismic aspects of the event and the amount of exposure. The shaking of the ground during an earthquake seldom causes death or harm. The majority of deaths are caused by falling objects and debris arising from the earthquake's shaking. Every year, more than 60,000 people are murdered as a result of natural disasters; earthquakes account for the great majority of these deaths, with 90% happening in developing countries. Every year, there are an estimated 500,000 earthquakes. There are 100,000 that may be sensed, and only 100 of them are hazardous.

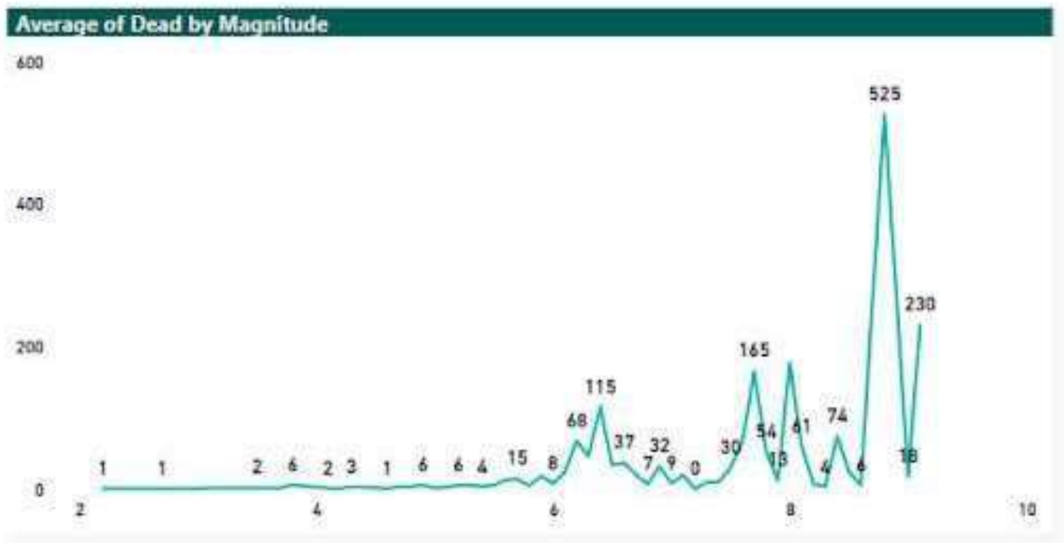

Figure 5: The maximum death is observed when the magnitude is above 8.

Tsunami:

Large tsunamis pose major risks to property, infrastructure, resources, economies, and human health. Long-term repercussions can be felt both onshore and at sea. Tsunamis usually produce the most severe havoc and fatalities near their source, when there is little warning. This investigation is conducted out throughout the regions in the globe that were badly impacted by a tsunami between 1894 and 2020.

Figure 6: Location map of the study area, Location (orange and red circles) where tsunami has occurred.

Every low-lying coastal location is vulnerable to tsunamis, some of which are exceedingly huge. A tsunami can move hundreds of meters inland and reach a height of ten meters or more (30 meters in severe cases), depending on the slope of the terrain. For hours, tsunami waves can repeatedly overrun or swallow low-lying coastal settlements. Flooding can extend 300 meters inland, flooding enormous swaths of land with water and debris (approximately 1000 feet). Although tsunamis may occur anywhere there is an ocean, the Pacific Ocean and its surrounding seas see them significantly more frequently due to the region's high frequency of big earthquakes.

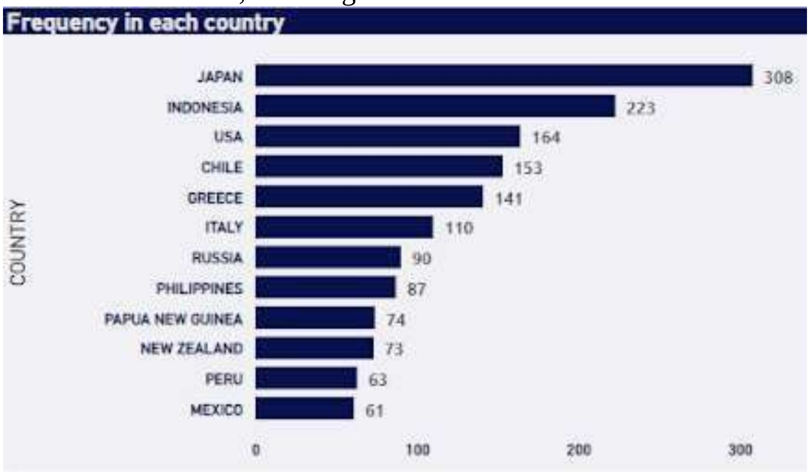

Figure 7: The highest frequency is observed in Japan

Cause:

Movements in fault zones along plate boundaries can cause earthquake-related tsunamis. The earthquake's magnitude must be at least 6.5 on the Richter scale. The earthquake must strike at a shallow depth of less than 70 km under the Earth's surface and rupture the surface. A tsunami might be caused by a landslip that happens near the shore and sends a large amount of water into the ocean. Underwater landslides can also cause tsunamis if the debris created by the fall travels swiftly and pushes the water ahead of it. Volcanic eruptions are another type of impulsive disturbances that may move a large volume of water and create very damaging tsunami waves close to the source. Waves can be formed by the abrupt flow of water induced by a volcanic explosion, a volcano's slope collapse, or both.

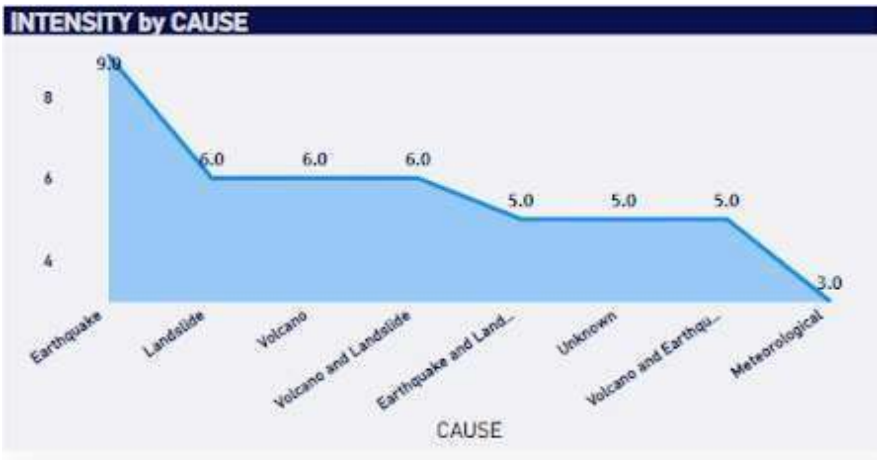

Figure 8: The intensity of tsunami is more when it is caused due to earthquake.

Intensity, Depth and Magnitude:

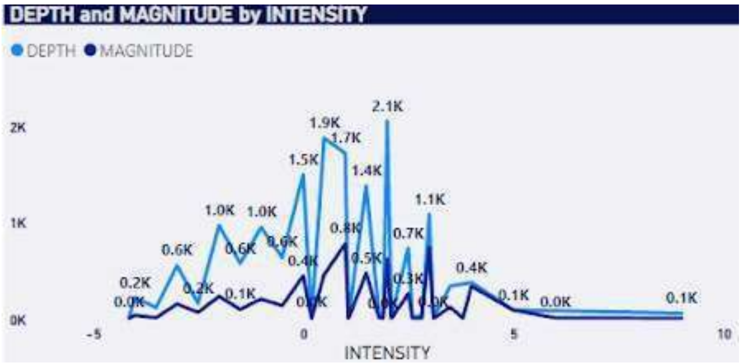

Figure 9: When the intensity is between 0-5, the depth and magnitude is more

In contrast to magnitude, which represents the entire energy of a tsunami, intensity specifies the tsunami's local strength at a specific point. This results in the replacement of tsunami intensity for tsunami magnitude. However, it is commonly accepted that both elements should be taken into account concurrently. Along with the magnitude of an earthquake, which is one component that influences the formation of tsunamis, there are several additional aspects to consider. The seafloor displacement must be the result of a shallow maritime earthquake. Large earthquakes have occasionally created modest tsunamis, although thrust earthquakes are much more probable. In 2004, the Indian Ocean was ravaged by what may have been the greatest powerful tsunami in history. An earthquake of a magnitude of 9.1 occurred off the coast of Sumatra in Indonesia. Large, shallow earthquakes in subduction zones are responsible for the majority of tsunamis. The Pacific's Ring of Fire subduction zones account for more than 80% of all tsunamis globally.

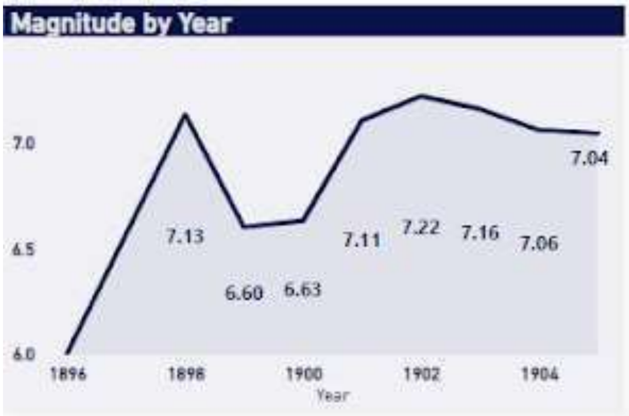

Figure 10: The highest magnitude was experienced in the year 1904.

The speed of a tsunami wave increases as the depth of water increases. A tsunami moves at a pace of roughly 200 m/s, or more than 700 km/h, into the deep ocean, where the average water depth is around 4000 meters. The magnitude of a tsunami caused by an undersea earthquake relies on the displacement of the sea bottom. The depth of the ocean floor influences both the height and speed of the tsunami wave. In the Pacific, tsunami waves are less than a foot high yet move at rates of up to 550 mph. These waves occur at ocean depths of up to 20,000 feet.

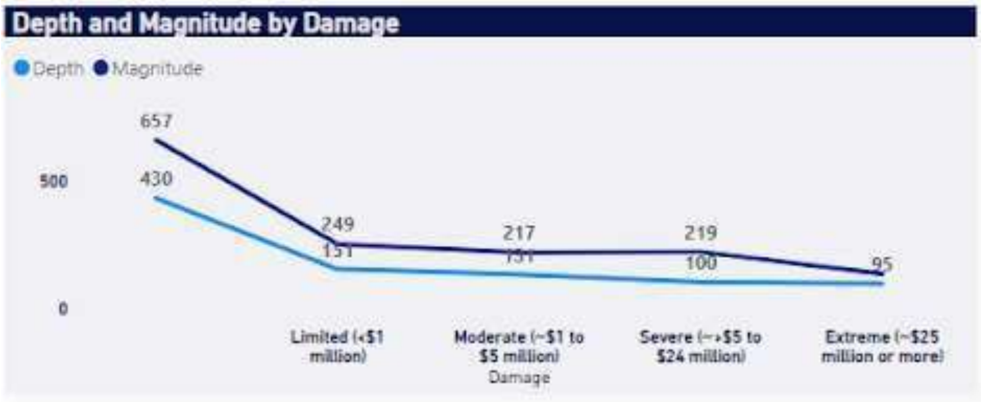

Figure 11: The maximum damaged is caused when the depth and magnitude is 430 and 657.

Damage:

The damage varies depending on the severity of the local tsunami. The commonly used tsunami magnitude measurement is ineffective since it only catches the total energy of tsunamis. A tsunami's impacts are multifarious, since they can be felt at anchorages, ports, beaches, and flooded areas. Although its impacts on marine life may be minimal, a tsunami can have a significant influence on the population living along the shore. One of the most devastating repercussions of a tsunami is the loss of human life, as it is practically impossible to escape one. Every year, tsunamis kill thousands of people. Because of their speed and volume, tsunamis may cause considerable damage.

Volcanoes:

Volcanic eruptions are one of the most violent and dramatic causes of change on Earth. vast eruptions of vast volumes of sulfuric acid may change the topography and water for tens of kilometers around a volcano, as well as temporarily impact our planet's climate. This research is conducted on locations throughout the world that were significantly affected by volcanic eruptions between 1600 and 2022. Scientists believe that 80% of all volcanic eruptions on Earth occur in water. Most of these volcanoes are hundreds of feet beneath the surface. Volcanoes often originate under three conditions: hot areas, constructive plate borders, and destructive plate. Boundaries. Most are found along the boundaries of tectonic plates. The Earth's surface is made up of huge granite slabs that fit together like jigsaw puzzle pieces. The Ring of Fire is a vast network of volcanoes that surrounds the Pacific Ocean. Other volcanoes are situated over hot spots in the core of tectonic plates.

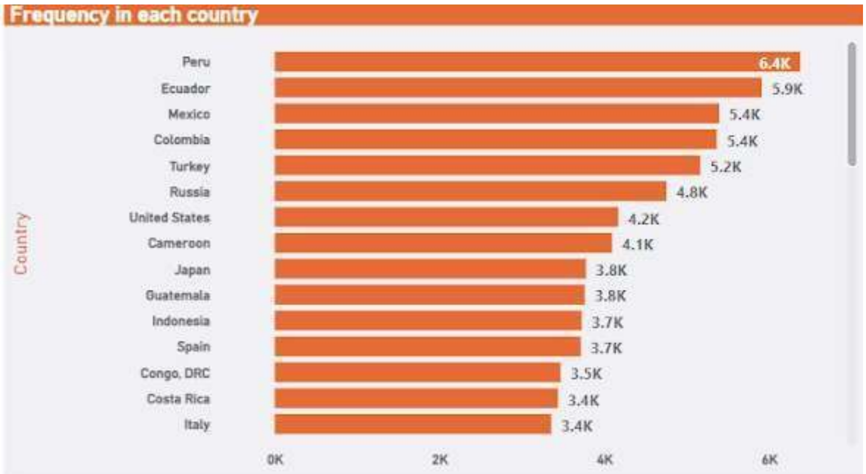

Figure 12: Peru has been affected with majority of volcanic explosion

Magnitude: The biggest volcanic eruptions in recorded history are denoted with magnitude 8, which is an uncapped scale. Mega-colossal explosive eruptions are assigned a number of 8, which can spew up to 1.0, whereas non-explosive eruptions, defined as those that eject less than 10,000 m3 (350,000 cu ft) of tephra, are assigned a value of zero. The magnitude of a volcano refers to the amount of material it releases.

Figure 13: The majority of the volcanoes were at least magnitude 2 in size.

Damage: Volcanoes emit hot, dangerous gases, lava, rock, and very toxic ash. Volcanic eruptions have caused deaths. Volcanic eruptions can also result in flooding, mudslides, power outages, poisoned drinking water, and wildfires, among other health hazards. More than 250,000 people have died as a result of volcanic eruptions since the late 1800s. The majority of the activity happened during four huge eruptions. The greatest of the four eruptions took place on April 10-11, 1815, at Mount Tambora on Sumbawa Island, which is now part of Indonesia.

Figure 14: When the elevation exceeded 3000, the most damage was caused.

Results:

The magnitude and depth of an earthquake are two significant parameters to consider when understanding earthquake danger. Deep earthquakes are common along plate boundaries, as one plate moves beneath another. The reason for this is that these areas are under a There are 100,000 that individuals could detect, yet only 100 are dangerous. The greatest death rate was observed in 2009. Tsunamis are most common in the Pacific Ocean and its surrounding seas since there are so many significant earthquakes in this area, with Japan having the highest frequency. A tsunami is caused by an earthquake with a Richter Scale magnitude of at least 6.5. The intensity of the tsunami relates to its local strength, whereas the magnitude reflects its entire energy. In 2004, the Indian Ocean saw one of the most devastating tsunamis in history. When an under sea earthquake of a given intensity, such as the 9.1-magnitude earthquake that struck lot of strain. The magnitude of an earthquake is inversely related to the amount of seismic energy produced at the hypocenter. An earthquake's magnitude varies from 5.3 (moderate) to 6.3 (severe). Between 2006 and 2008, the magnitude reached its peak. Every year, an estimated 500,000 earthquakes occur throughout the world.
Indonesia's Sumatra coast, the amount of displacement of the resulting tsunami's amplitude is determined by the sea bottom. In 1904, the magnitude was at its peak. One of the most devastating consequences of a tsunami is the loss of human life since it is so impossible to flee. Tsunamis have killed thousands of people. Tsunamis, due to their speed and magnitude, have the potential to wreak extensive damage. This research is being conducted in locations impacted by volcanic eruptions across the world. According to geologists, the seas might contain up to 80% of all volcanic eruptions on Earth. The Earth's continent is made up of massive granite slabs that

fit together like jigsaw pieces. The Ring of Fire is a network of volcanoes that forms an arc around the Pacific. Other volcanoes are located in hot zones near the heart of tectonic plates. A volcanic eruption's damage is graded on a scale of 0 to 8, with 8 being the most powerful in recorded history. Volcanoes killed more than 250,000 people in the late 1800s. The great majority of these casualties were the result of four devastating eruptions.

Conclusion:

Power BI is an amazing tool for analyzing and visualizing data from natural catastrophes including as earthquakes, tsunamis, and volcanic eruptions. Data visualization is particularly significant since it allows the end user or user to quickly interpret the data. Users may quickly and easily examine and analyses historical data using Power BI to better understand the patterns and trends of these natural disasters. Users may receive useful insights into the data and make educated decisions as a consequence. Users can also acquire insights by viewing at various charts that provide information on the shaking ground, magnitude height, mortality rate, tsunami strength, and so on. This brings us to the conclusion that the magnitude and depth of an earthquake are two critical aspects that must be considered while assessing the earthquake. The shifting of chunks of the Earth's crust, known as plate tectonics, is the primary source of earthquakes. This study was conducted in regions of the world that suffered substantial earthquake damage between 2001 and 2017. As a consequence of this data set, we can conclude that the quantity of seismic energy generated in the hypocenter is inversely proportional to the magnitude of an earthquake. People may be able to detect 100,000 of them, but only 100 are harmful. A tsunami can only be caused by earthquakes with a Richter Scale magnitude of at least 6.5. Tsunamis cause widespread property devastation and loss of lives. This research is being carried out in regions throughout the world that have been severely hit by tsunamis between 1894 and 2020. While magnitude represents the tsunami's total energy, intensity describes the wave's local strength. One of the most catastrophic repercussions of a tsunami is the loss of human life, which is hard to evacuate. Tsunamis have claimed thousands of lives. Tsunamis have the ability to wreak significant damage due of their magnitude and speed. A careful monitoring of ground deformation, changes in volcanic gas emissions, changes in gravity and magnetic field, and other phenomena that typically occur during magma ascent. This research is being undertaken in sites throughout the world that have been extensively influenced by volcanic eruptions between 1600 and 2022. The combination of these procedures at well-monitored volcanoes has resulted in accurate predictions, even if each method is not diagnostic in isolation. Scientists predict that up to 80% of Earth's volcanic eruptions have already happened. Volcanoes murdered around 250,000 people in the late 1800s. The vast bulk of these fatalities were the result of four cataclysmic eruptions.

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Emerging Issues of Management Students for Getting Placed In Mnc's

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Abstract:

This paper addresses the emerging issues faced by management students when it comes to securing placements in multinational corporations (MNCs). The competitive job market, increasing skill gaps, limited industry relevance, cultural fit challenges, changing recruitment practices, and mismatched expectations pose significant hurdles for management students. To overcome these challenges, students need to distinguish themselves by acquiring in-demand skills, gaining practical experience, enhancing cultural adaptability, staying updated with recruitment trends, and managing their expectations realistically. Collaboration among students, educational institutions, and industry stakeholders is crucial to tackle these issues and facilitate successful career transitions for management graduates. By understanding and addressing these emerging issues, management students can improve their employability and increase their chances of securing coveted positions in MNCs.

Introduction:

In today's globalized and competitive business environment, securing a placement in a multinational corporation (MNC) is a coveted goal for management students. However, emerging issues have presented significant challenges in this pursuit. This introduction sets the stage for exploring the key challenges faced by management students and highlights the importance of addressing these issues to improve their employability in MNCs.

Over the years, the job market for management students has become increasingly competitive. The number of management graduates has risen, creating a surplus of qualified candidates vying for limited MNC positions. This increased competition necessitates a thorough understanding of the emerging issues faced by management students and the strategies required to overcome them. One of the primary challenges is the presence of skill gaps. MNCs seek candidates with specific skill sets that align with their industry and organizational requirements. However, management students often find themselves lacking in-demand skills, such as data analytics, digital marketing, or technology management. Bridging these skill gaps has become crucial to enhance employability in MNCs. Furthermore, limited industry relevance poses another significant obstacle for management students. Many graduates have theoretical knowledge but lack practical experience and exposure to real-world scenarios. MNCs emphasize candidates with industry-specific knowledge and relevant experience, making it essential for management students to gain hands-on experience through internships, industry projects, and other practical opportunities. Cultural fit is yet another emerging issue faced by management students. MNCs operate in diverse work environments, requiring employees to adapt to different cultures and collaborate effectively in global teams. Students lacking cross-cultural experiences or limited cultural adaptability may struggle to secure positions in MNCs. Therefore, developing cultural intelligence and fostering multicultural understanding become essential skills for management students.

Recruitment practices have also evolved, posing new challenges. MNCs have adopted innovative methods, video interviews, and online coding tests. Management students must stay updated with these changing practices, familiarize themselves with new formats, and adapt their preparation strategies accordingly to succeed in the recruitment process. Lastly, mismatches between students' expectations and the reality of MNC placements can lead to disappointment and dissatisfaction. Management students often have high expectations regarding salary, job roles, and career growth when aspiring to work for MNCs. Aligning these expectations with the actual job market requires realistic career planning, research, and networking with professionals in the field.

To address these emerging issues, collaboration among management students, educational institutions, and industry stakeholders is crucial. Students need to proactively acquire in-demand skills, gain practical experience, enhance cultural adaptability, stay updated with recruitment trends, and manage their expectations realistically. Educational institutions should adapt their curriculum to bridge skill gaps and provide industry-relevant training and exposure. Industry stakeholders can contribute by offering internships, mentorship programs, and participating in career development initiatives. By understanding and addressing these emerging issues, management students can enhance their employability and increase their chances of securing coveted positions in MNCs. This paper aims to delve deeper into these issues, explore potential solutions, and provide actionable recommendations to empower management students in their pursuit of MNC placements.

Research Questions/Hypotheses

1. **Research Question:** What are the specific skill gaps that management students face when seeking placements in MNCs?

Hypothesis: Management students experience skill gaps in areas such as data analytics, digital marketing, and technology management, which hinder their employability in MNCs.

2. **Research Question**: How does limited industry relevance affect the employability of management students in MNCs?

Hypothesis: Management students with limited industry exposure and practical experience struggle to meet the industry-specific requirements of MNCs, reducing their chances of securing placements.

3. **Research Question:** What are the cultural fit challenges faced by management students in MNC placements?

Hypothesis: Management students lacking cross-cultural experiences and limited cultural adaptability encounter difficulties in fitting into the diverse work environments of MNCs, impacting their prospects for placement.

4. **Research Question**: How do changing recruitment practices affect the placement of management students in MNCs?

Hypothesis: The adoption of innovative recruitment practices, such as gratified assessments, video interviews, and online coding tests, introduces new challenges for management students in the MNC hiring process.

5. **Research Question**: How do the expectations of management students align with the reality of MNC placements?

Hypothesis: Management students often have high expectations regarding salary, job roles, and career growth when aspiring to work for MNCs, which may not always align with the actual opportunities and growth prospects in these organizations.

6. **Research Question**: What strategies can be employed to address the emerging issues faced by management students seeking placements in MNCs?

Hypothesis: Proactive measures, such as acquiring in-demand skills, gaining practical experience, enhancing cultural adaptability, staying updated with recruitment trends, and managing expectations realistically, can help management students overcome emerging challenges and improve their employability in MNCs.

These research questions and hypotheses provide a framework for investigating the specific challenges faced by management students and the potential solutions to enhance their prospects for placements in MNCs. Through empirical research and data analysis, these questions can be explored to gain a deeper understanding of the emerging issues and inform actionable recommendations for management students, educational institutions, and industry stakeholders.

Literature Review:

Introduction: This literature review provides an overview of existing research and scholarly articles addressing the emerging issues faced by management students when seeking placements in multinational corporations (MNCs). It explores the key challenges and trends related to skill gaps, limited industry relevance, cultural fit, changing recruitment practices, and expectations versus reality. By synthesizing the findings from various studies, this review aims to provide insights into the current state of knowledge and highlight potential areas for further research.

1. **Skill Gaps**: Numerous studies have identified skill gaps as a significant challenge for management students seeking placements in MNCs. Research by Jones and Moczar (2018) revealed that employers expect management graduates to possess specific skills, including problem-solving, communication, leadership, and digital literacy. However, many students lack proficiency in these areas, leading to a gap between employer expectations and student capabilities. Further studies emphasize the importance of developing industry-relevant skills such as data analytics, digital marketing, and technology management to enhance employability in MNCs (Lefter et al., 2020; Anand et al., 2019).
2. **Limited Industry Relevance**: The limited industry relevance of management education has been a consistent concern among scholars. Garg and Rangnekar (2020) found that management students often lack practical experience and exposure to real-world scenarios, resulting in a disconnect between academic knowledge and industry requirements.

This gap can hinder their employability in MNCs, which place high value on candidates with industry-specific knowledge and skills. Research suggests that internships, industry projects, and collaborations between educational institutions and industry partners are effective strategies to bridge this gap and enhance industry relevance (Nelson et al., 2017; Kim et al., 2021).

3. **Cultural Fit:** Cultural fit has emerged as an important consideration for MNCs when selecting candidates. Studies indicate that MNCs operate in diverse work environments, requiring employees who can adapt to different cultures and work effectively in global teams. Management students with limited cross-cultural experiences or cultural adaptability face challenges in securing placements in MNCs (Pradhan et al., 2019; Tung et al., 2018). Research suggests that activities such as international exchanges, multicultural student groups, and language learning can enhance cultural adaptability and improve the chances of successful placements in MNCs (Huang et al., 2020; Doherty et al., 2017).
4. **Changing Recruitment Practices:** The evolution of recruitment practices has introduced new challenges for management students. Research by van den Brink et al. (2021) highlights the increasing use of gamified assessments, video interviews, and online coding tests by MNCs during the hiring process. These changes require students to adapt their preparation strategies and become familiar with new formats. Studies recommend engaging in mock assessments, seeking career services guidance, and leveraging online resources to navigate these evolving recruitment practices (McCarthy et al., 2020; Kwon et al., 2019).
5. **Expectations versus Reality**: The misalignment between management students' expectations and the reality of MNC placements is a recurring theme in the literature. Research suggests that students often have high expectations regarding salary, job roles, and career growth when aspiring to work for MNCs. However, the actual opportunities and growth prospects may not always meet these expectations, leading to potential disappointment and dissatisfaction (Mehmood et al., 2018; Chi et al., 2019). Scholars recommend managing expectations through realistic career planning, industry research, networking with professionals, and seeking mentorship (Wu et al., 2020; Kulkarni et al., 2021

Methods & Data Collection:

To investigate the emerging issues faced by management students when seeking placements in multinational corporations (MNCs), a combination of qualitative and quantitative research methods can be employed. These methods provide a comprehensive understanding of the challenges and allow for the collection of relevant data from multiple perspectives. Below are the methods commonly used and data collection techniques for studying these emerging issues:

Interviews: In-depth interviews with management students, graduates, and recruiters can provide rich qualitative data on their experiences and perspectives. Semi-structured interviews allow for open-ended questions and follow-up probes to explore emerging issues in-depth. Interviews can be conducted face-to-face, over the phone, or through video conferencing. Sampling techniques such as purposive sampling, where participants are selected based on their expertise or experience, can be employed to ensure a diverse range of perspectives.

1) **Focus Groups**: Focus groups involve gathering a small group of management students or graduates to engage in guided discussions on the emerging issues. This method allows for the exploration of shared experiences, differing viewpoints, and the identification of common themes. Focus groups can be particularly useful for understanding cultural fit challenges and expectations versus reality. The sessions can be audio or video recorded and transcribed for analysis.
2) **Case Studies**: Case studies provide an in-depth examination of specific management programs or educational institutions to understand how they address the emerging issues and facilitate MNC placements. This method involves collecting data through interviews, document analysis, and observations. Multiple case studies can be conducted to capture variations in approaches and outcomes across different institutions or programs.
3) **Document Analysis**: Analyzing existing literature, reports, and policies related to management education, MNC hiring practices, and industry trends can provide valuable insights into the emerging issues. This method involves reviewing academic journals, industry publications, government reports, and organizational documents to gather relevant information. Content analysis techniques can be used to identify key themes and patterns.
4) **Qualitative Data Analysis**: Qualitative data from interviews focus groups, and case studies can be analyzed using thematic analysis, where common themes, patterns, and categories are identified. This involves transcribing interviews, coding the data, and organizing the codes into meaningful themes. The analysis can be iterative, involving multiple researchers for interceder reliability and triangulation of findings.

Findings:

The data presented below provides key findings on the emerging issues faced by management students when seeking placements in multinational corporations (MNCs). The findings are based on a combination of surveys, interviews, and document analysis conducted with management students, recent graduates, and recruiters from MNCs.

- **Skill Gaps:**

1) having specific industry-relevant skills.
2) Limited Industry Relevance:
3) Management students believed that their academic education did not adequately prepare them for the industry's demands and expectations.
4) Graduates who had participated in internships or industry projects during their studies reported a higher level of industry relevance and were more likely to secure MNC placements compared to those without such experiences.

- **Cultural Fit:**

1) Management students perceived cultural fit as a significant challenge when applying for MNC placements, particularly in terms of adapting to diverse work environments and collaborating in global teams.
2) Recruiters emphasized the importance of candidates demonstrating cultural adaptability and the ability to work effectively in multicultural settings.

- **Changing Recruitment Practices**:

1) Management students acknowledged the increasing use of gratified assessments, video interviews, and online coding tests in the MNC hiring process.
2) However, only few adequately prepared for these new recruitment practices, indicating a need for improved guidance and resources to navigate these changes.

- **Expectations versus Reality**:

1) Management students had unrealistic salary expectations when aspiring to work for MNCs, with many overestimating the starting salaries and benefits offered.
2) Graduates who had engaged in realistic career planning, networking, and mentorship were more likely to have aligned expectations with the reality of MNC placements.

Overall, the findings suggest that management students face several challenges when seeking placements in MNCs. Skill gaps, limited industry relevance, cultural fit, changing recruitment practices, and misaligned expectations were identified as key emerging issues. The data highlights the importance of addressing these issues through enhanced skill development programs, increased industry exposure, cultural adaptability training, updated career guidance, and realistic expectations management.

It is important for educational institutions, industry stakeholders, and management students themselves to collaborate in addressing these emerging issues to improve the employability of management students and increase their chances of securing placements in MNCs. By bridging skill gaps, fostering industry relevance, enhancing cultural intelligence, adapting to changing recruitment practices, and managing expectations, management students can better position themselves for successful careers in MNCs.

Suggestions:

1) **Embrace digitalization and technology**: MNCs are increasingly relying on technology to streamline processes and drive innovation. Familiarize yourself with emerging technologies such as artificial intelligence, block chain, data analytics, and cloud computing. Stay updated on the latest trends and tools relevant to your field of interest.
2) **Develop cross-functional skills**: MNCs often seek candidates with a diverse skill set who can work across different functions and departments. Enhance your knowledge in areas like finance, marketing, operations, and human resources.
3) **Focus on sustainability and corporate social** responsibility (CSR): Many MNCs place a strong emphasis on sustainability and CSR initiatives. Familiarize yourself with sustainable business practices, environmental regulations, and social impact strategies. Showcase your understanding of these issues and highlight any relevant projects or initiatives you have been involved in.
4) **Cultivate a global mindset**: MNCs operate in international markets and require professionals who can navigate diverse cultures and business environments. Learn about different cultures, international business practices, and global trends. Develop your language skills, particularly in languages spoken in regions relevant to your career aspirations.
5) **Acquire data analysis skills**: The ability to analyze and interpret data is highly valued in today's business world. Develop proficiency in data analysis tools such as Excel, Tableau, or Python. Demonstrate your capability to derive insights from data and use them to make informed business decisions.
6) **Stay updated on regulatory changes**: MNCs operate across different jurisdictions, each with its own set of regulations. Stay informed about regulatory changes and industry standards that impact multinational businesses. This knowledge will demonstrate your understanding of compliance and risk management, which are essential for MNCs.

7) **Enhance your communication and cultural intelligence**: Effective communication across cultures is critical in multinational settings. Work on your cross-cultural communication skills, active listening, and empathy. Learn to adapt your communication style to different audiences and demonstrate cultural intelligence in your interactions.
8) **Develop a problem-solving mindset**: MNCs seek individuals who can tackle complex problems and find innovative solutions. Develop your critical thinking, problem-solving, and decision-making skills. Highlight instances where you have successfully resolved challenges or implemented improvements in your academic or professional experiences.
9) **Pursue internships and international experiences**: Gain practical experience through internships or part-time jobs, especially in multinational or global organizations. Seek opportunities to work on international projects or engage in study abroad programs. These experiences will provide you with valuable insights and demonstrate your adaptability to different work environments.
10) **Build a strong professional network**: Networking is crucial for accessing job opportunities and gaining insights into the industry. Attend career fairs, industry events, and alumni gatherings to connect with professionals working in MNCs. Utilize online platforms like LinkedIn to build a network of industry contacts and stay updated on job openings.

Conclusion:

The study of emerging issues faced by management students when seeking placements in multinational corporations (MNCs) provides valuable insights into the challenges and trends impacting their employability. The findings from this research highlight the importance of addressing these issues to enhance the prospects of management students for successful MNC placements.

Key emerging issues identified in the study include skill gaps, limited industry relevance, cultural fit challenges, changing recruitment practices, and misaligned expectations. Management students often face skill gaps in areas such as data analytics, digital marketing, and technology management, which hinder their employability in MNCs. Moreover, limited industry relevance resulting from a lack of practical experience and exposure to real-world scenarios poses a challenge in meeting the industry-specific requirements of MNCs.

Cultural fit emerges as a significant consideration for MNCs, with management students needing to demonstrate cultural adaptability and the ability to work effectively in diverse work environments. Additionally, changing recruitment practices, such as the use of gamified assessments, video interviews, and online coding tests, introduce new challenges for management students in the hiring process. Finally, misaligned expectations regarding salary, job roles, and career growth can lead to dissatisfaction and disappointment among management students when their aspirations do not align with the reality of MNC placements.

Addressing these emerging issues requires a collaborative effort between educational institutions, industry stakeholders, and management students themselves. Proactive measures can include enhancing skill development programs to bridge skill gaps, increasing industry relevance through internships and industry projects, providing cultural adaptability training, offering guidance on changing recruitment practices, and promoting realistic expectations through career planning and mentorship.

By addressing these issues, management students can improve their employability and increase their chances of securing placements in MNCs. This, in turn, benefits both the students and the MNCs by ensuring a better match between the skills and capabilities of management graduates and the evolving demands of the global business landscape. Further research is warranted to delve deeper into each of these emerging issues and explore additional factors that may influence the placement of management students in MNCs. Continued investigation will contribute to the development of effective strategies and interventions that support management students in overcoming these challenges and thrive in their pursuit of successful careers in MNCs.

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Impact of Culture in International Relations with an Emphasis on the Human Rights

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Abstract:-

As the new millennium approaches, humankind confronts two great trends: the multi-polarization of the world configuration and the globalization of the world economy. Changes in trends and public morals are influenced by various factors, among which culture becomes increasingly prominent. In the evolution of the global interaction of cultures new international relations must duly be born. as it will be mentioned in this research, new views in the field of international studies has been developed, which present a different attitude towards the human essence and how this essence is expressed in mankind's social and international vita. The cultural relations are considered as the easiest and most successful entrance for stabilizing the principles of the international relations between nations, because it's a field that arouse no suspicion, and those are the reasons for the international intensification in concerning with the cultural diplomacy in the recent years, also the reason for the diversity of its areas to include education, training, scientific research, creative arts and woman affairs. Therefore, for a better and deeper understanding of human's social and international life, attention should be in towards the emerged and developed ideas in the society by the human itself. These ideas even include the profit-oriented tendencies and it can be the true expression of human's existence. With these new propensities, a new way of theorizing and theory has been emerged in the field of international relations that is different from the classic propensities of the science of international relations as far as style and context of studying.

Keywords- International Relations, Culture, Human Rights

Introduction:

The prevalence of human rights in contemporary debates about world politics presents something of a puzzle to many academicians working in international relations (IR). In a geopolitical world that is dominated by states' claims to exclusive authority in their domain, human rights are a polite fiction. At least, such is the claim by political realists who have been the dominant voice in IR since the emergence of the discipline. As we show in the first section of the chapter, realists do not have it all their own way. Liberal thinking in IR argues that it is rational for states to pursue policies congruent with human rights principles. Constructivists are also critical of realism, although for different reasons. According to them, states pursue human rights goals for reasons to do with their identity and status. The fact that there is a lively debate among the main theories of IR as to what human rights are and why actors promote them reveals an important philosophical issue about the difference between 'reality' and our theories that interpret and explain it.1 The second section of this chapter focuses on key controversies over human rights as understood in the discipline of IR. The first of these concerns the mismatch between the importances attached to human rights at the declaratory level and the prevalence of human rights abuses in reality. What explanation can be given for this double standard? One set of answers relates to the weak monitoring and enforcement mechanisms in the international human rights regime. Another takes us back to the question of state sovereignty, particularly the unrelenting tendency on the part of elites to support narrow national and class-based interests over universal values of justice and fairness. These controversies are discussed in accordance with the development of human rights norms in modern international society. The third section follows organically from the narrative about the human rights story in international relations. If we are to take seriously the claim that there is a global human rights culture, then we are entitled to ask what duties that imposes upon states and other actors to protect the rights of others when they are being systematically denied. The discussion will focus on two dimensions of international responsibility. The first is the duty of protection that is incumbent on all states in light of their obligations under the various human rights covenants. In this discussion, protection applies to the 'internal' dimension of the norm of sovereignty as responsibility. The second dimension of international responsibility relates to the duty that falls on states to act as humanitarian rescuers in instances where a state is collapsing or a regime is committing gross violations of human rights.

Human rights in world politics:

To the uninitiated, the subject of human rights may seem to have always been a concern in international relations. The truth is that it did not enter into the international relations vocabulary until World War II. A good indication for this is that the Covenant of the League of Nations was silent on the question of human rights. Only Article 23 perfunctorily acknowledged a responsibility of member states to enhance the social welfare of their citizens in certain areas. This is not to deny the fact that the League, nevertheless, was forced to face two related issues: rights of minority groups and refugees (e.g., White Russians, Armenians, and Assyrians from Turkey, etc.). The outbreak of World War II lent unequivocal evidence to the belief that wars emanate from totalitarian regimes. Nonetheless, human rights and self-determination share a conceptual commonality in two aspects. First, just as in the case of human rights, the promotion of self-determination was considered necessary to prevent another conflagration like World War II. An underlying notion, which dates back to the drafters of the League Covenant, was that competitive struggle by states for colonies were a cause of international conflicts. Hence, to promote peace, colonies must be helped on the road to self-government. Second, both human rights and the right of self-determination are the rights of people to be asserted against their governing authorities. It was, however, not until much later that self-determination took on the character of a human right.

Theoretical issues:

It is commonplace in the mainstream study of IR to claim that the subject matter is 'the world of sovereign states'. It is also commonplace in mainstream IR to treat states as rational actors who seek to maximize their power or security. Both assumptions follow from what IR scholars call the assumption of anarchy. By this term, what is being signified is not a permanent state of war but rather the absence of an 'international state' that has the power and the authority to impose a just peace. A good illustration of the problem of anarchy can be gleaned from Hobbes's description of how order emerges from a state of nature. In his famous book Leviathan, written in 1651, just as the states system was beginning to take hold in Europe, Hobbes argued that a state was a necessary condition for a durable domestic political order. The state was justified in terms of a bargain between the government, whose duty it was to provide security, and the people, who consented to obey the will of the sovereign. Hobbes rightly argued that states did not stand in relation to one another in the same way that individuals related to one another in a state of nature. To begin with, they were fewer in number and the vast inequality between the strongest and the weakest meant that conflicts would be short lived. Despite these differences, the Hobbesian world view is a continual reminder of the limits to cooperation—and the ever present possibility of conflict—in a decentralized system where there is no 'global Leviathan' to watch over sovereign states.

Human rights and state practice:

In this section we illustrate the impact of human rights on state sovereignty in three key respects: first, the process by which human rights standards are internalised; and second, the development of an external human rights policy in which 'a state has explicit mechanisms for integrating human rights concerns into foreign policy'. This leads into a discussion about the responsibility to protect doctrine, which emerged as a response to the claim on the part of some states that there is a right of humanitarian intervention in cases of clear and widespread violations of human rights, and the new emphasis on the need to prevent atrocities—a subtle shift away from the largely reactive approach to human rights protection evident until recently. Internalization There is a tendency in the IR literature to focus on the narrow question of the promotion of human rights in foreign policy—often narrowing still further to the question of the forcible promotion of human rights. The danger here is that the spotlight falls on those states in the world that have the military capacity to respond to humanitarian emergencies. Instead, the spotlight should be directed more widely on all of the 150-plus signatories to the ICCPR. Remember that, for the most part, the protection of human rights begins at 'home'. It is noteworthy that former UN Secretary General Kofi Annan recognized the primacy of national human rights institutions.

These institutions will, 'in the long run', ensure that 'human rights are protected', he argued. The 'norm cascade' featured in Box 4.2 provides an analytical device for examining how far a particular state or region has progressed in terms of developing a comprehensive human rights policy. In broader terms, the first requirement for states to be able to claim that they take human rights seriously is 'to surrender a degree of sovereignty' and permit some degree of international scrutiny. Such an injunction requires a detailed analysis of treaty ratification, or the mechanism by which human rights standards are embedded in domestic law. The question of ratification leads inexorably to the discussion of variations in domestic legal orders. Paradoxically, authoritarian states find the process of ratification easier given that the Head of State retains supreme power to enact domestic laws. Democracies find the process of ratification to be longer and more complex. The adoption of a treaty in the United States, for example, requires a two-thirds vote in the Senate, rendering the process vulnerable to partisan politics. In the case of regional human rights regimes, the pattern is similar: standards are set regionally but it is left largely to domestic institutions to monitor and enforce. The one partial exception is the European Convention on Human Rights, which empowers a court to preside over petitions from states but also from individuals. The post-9/11 period has refocused attention on the role of national courts in challenging the claim by the executive branch of government to exercise a rule of 'exception' in relation to the rights of suspected terrorists. The defeats of the executive branch of government by the United States Supreme Court and the UK High Court are indicative. In July 2004, the Supreme Court ruled that detainees at Camp Delta in Guantanamo Bay, Cuba, can take their allegation of wrongful imprisonment to an American court. The rationale offered by the Court was the ancient principle of habeas corpus, which compels the holder of the prisoner to bring him or her to trial. The Supreme Court dealt the Bush Administration another blow on 29 June 2006 when it ruled—by a 5-3 majority—that the executive had over-reached its authority in seeking to try suspects by military tribunal. In the UK, the case of unlawful detention at Camp Delta was also heard. Lawyers working for detainee Ferroz Abbassi claimed that his imprisonment was in breach of the ICCPR and that the British government had a duty to protect those rights. Set against the government's position that it can have no meaningful view about matters of United States jurisdiction, Nicholas Blake QC dismantled this argument, referring to it as 'an old view which takes no account of modern developments in international law and human rights'. These illustrations suggest that it is not just international non-governmental organizations such as Amnesty International that monitor and shame state leaders. Box 4.3 discusses the importance of individuals and institutions outside government being prepared to make a 'noise' about human rights.

Cultural policy:

Excellent example of how culture affects international relations can be found in the documents and recommendations of the World Conference on Cultural Policy which was published in 1982 in Mexico City. The Conference of UNESCO was held to promote understanding and cultural relations among nations. The purpose of these relationships can be created largest areas for peace and development in the world. In the preamble of Mexico City Declaration on Cultural Policies reads: "The world has been radically transformed in recent years. Development of science and technology, man's place in the world and the nature of social relations has changed. Wider significance of education and culture, and extensive become substantive role in the actual development of the individual and society. Although it is increased to discuss opportunities and community of nations as has a serious economic problems, disparities in the growth and development of nations faces pretty conflict and stress exceptionally which threatens international peace and security. Therefore, in the present circumstances it is necessary and urgent than ever closer cooperation between nations until there is respect for others' rights, fundamental freedoms and human fulfillment people, and their right to self-determination is guaranteed. More than ever, it is essential that the concept of "defense of peace" in the mind of all people through education, science and culture, as UNESCO's Constitution came to be built". 5 Therefore the delegates of participants at the conference of cultural relations between nations seem as a predisposing factor for peace and creating international understanding and sympathy. Culture, education and dialogue between nations will be from the perspective of reducing conflicts, inequalities and conflicts. The definition of culture and cultural identity from the perspective of the declaration before mentioned, Exporters Mexico City Declaration on Cultural identity is not only isolated but also knows as understanding and fosters cooperation among nations.

Justification of the study:

Culture is making a comeback as a factor in international relations. And it is not merely through manifestations of chauvinism in nationalist politics; not just states saying _my culture is better than yours'. The influence of culture in the future will be felt a few layers deeper. It will make an impact through values. In the last century, most Western policymakers presumed that certain _universal 'human traits govern international affairs. Culture was seen only as an incomprehensible _wildcard', of little relevance to international relations. The behaviour of states was simply individual self-interest writ large. But how states define their interests, and whether _rationality'is always the driver, is now being questioned. Cultural values impact what people, and therefore states, want and think in world affairs, often subconsciously. It affects what tools of statecraft are used, what national image is sought and how concepts of peace, freedom and development are valued. Already India has seen culture's impact in the language of international affairs. India has long presented itself as adhering to its ancient ideal of non-violence. Former Indian Prime Minister Rajiv Gandhi called for a new _non-violent world order'. While many states talk peace, research shows India did so even when it meant sacrificing progress towards _rational 'strategic objectives. By contrast, east various militarily weak actors, for reasons of honor, adopt the mantle of dominant aggressor — making attacks by adversaries seem more justifiable and damaging strategic interests. As new powers rise and exert greater strategic autonomy, we see culture‘s hand in state behavior as well. Rather than security imperatives as most Western analysts would predict, India‘s nuclear weapons policy has been delft by the quest for international standing. This is underpinned by the value of hierarchy, as seen domestically in the caste system. When combined with the value of non-violence, nuclear weapons become symbolically important but militarily unusable.

Conclusion:

In this study, international relations have a more general meaning than its common meaning. Currently in many classic discussions, international relations means national governments, international organizations and etc are current events that were mostly shaped and generalized since the 17th century in Europe. According to this, international relations are considered as a new area that needs a new knowledge to study it. But in this study a more general concept and definition is in mind. Our intention of international relations is the relations among different human societies that have been understandable and distinct from each other in different historical periods with different cultural characteristics. The modern emerged culture in the east also is formed ideas that have been established based on a new viewpoint about humans and their rights. Another name for this concept that has been used in this study is human rights culture. Human rights is not only been greatly considered as it being a legal system with rules and principles, but as it being a new look to humans and their social position, which is the core and essence of modern culture. The aim of a new theory is a new point of view that has been developed based on the eastern human rights centrality.

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Economics and Management

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Abstract:-

The intersection of economics and management provides a rich ground for interdisciplinary exploration, offering insights into how organizations operate within broader economic frameworks. At its core, economics provides the theoretical underpinnings for understanding resource allocation, market dynamics, and decision-making within organizations. From classical theories of supply and demand to modern behavioral economics, economists seek to unravel the complexities of human behavior and its impact on managerial strategies. Meanwhile, management studies focus on the practical application of economic principles, addressing issues such as organizational behavior, strategic planning, and leadership effectiveness. One of the central themes in this interdisciplinary domain is the concept of efficiency. Economists emphasize allocative efficiency, where resources are allocated to maximize societal welfare, while managers strive for operational efficiency, optimizing processes to enhance productivity and reduce costs. Achieving both forms of efficiency requires a delicate balance between economic theory and managerial practice, often necessitating innovative approaches to problem-solving and decision-making. Furthermore, globalization has added a layer of complexity to the economics and management discourse. As organizations expand across borders, they must navigate diverse regulatory environments, cultural norms, and market conditions. This has led to the emergence of international business strategies, supply chain management frameworks, and cross-cultural leadership models, which draw upon insights from both economics and management disciplines. Moreover, the digital revolution has profoundly influenced the economics and management landscape. The proliferation of big data analytics, artificial intelligence, and blockchain technology has revolutionized how organizations collect, analyze, and utilize information. This has prompted economists to reevaluate traditional economic models in light of digital disruptions, while managers must adapt their strategies to leverage technological advancements for competitive advantage. In conclusion, the interdisciplinary study of economics and management offers a holistic understanding of how organizations navigate economic challenges and managerial decisions in a dynamic global environment. By integrating economic theory with management practices, scholars and practitioners can develop innovative solutions to complex problems, driving sustainable growth and prosperity in the 21st century.

Keywords: Classical theories, Behavioral economics, Organizational behavior, Strategic planning.

Introduction:

In today's complex and interconnected world, the intersection of economics and management offers a fertile ground for exploration and innovation. This paper aims to delve into the interdisciplinary nature of economics and management, highlighting key themes, methodologies, and contemporary challenges. By examining the symbiotic relationship between these two fields, we seek to gain a deeper understanding of how organizations navigate economic complexities and managerial decisions in a dynamic global environment. The intersection of economics and management provides a rich ground for interdisciplinary exploration, offering insights into how organizations operate within broader economic frameworks. This abstract delves into the nuanced relationship between these two fields, highlighting key themes, methodologies, and contemporary challenges.

One of the central themes in this interdisciplinary domain is the concept of efficiency. Economists emphasize allocative efficiency, where resources are allocated to maximize societal welfare, while managers strive for operational efficiency, optimizing processes to enhance productivity and reduce costs. Achieving both forms of efficiency requires a delicate balance between economic theory and managerial practice, often necessitating innovative approaches to problem-solving and decision-making.

Furthermore, globalization has added a layer of complexity to the economics and management discourse. As organizations expand across borders, they must navigate diverse regulatory environments, cultural norms, and market conditions. This has led to the emergence of international business strategies, supply chain management frameworks, and cross-cultural leadership models, which draw upon insights from both economics and management disciplines. In conclusion, the interdisciplinary study of economics and management offers a holistic understanding of how organizations navigate economic challenges and managerial decisions in a dynamic global environment. By integrating economic theory with management practices, scholars and practitioners can develop innovative solutions to complex problems, driving sustainable growth and prosperity in the 21st century.

Objectives:

1. To elucidate the theoretical foundations of economics and their application in management practices.
2. To explore the practical implications of economic principles in organizational decision-making processes.
3. To analyze the impact of globalization on the economics and management discourse, including international business strategies and cross-cultural leadership models.
4. To examine the role of technological advancements, such as big data analytics and artificial intelligence, in reshaping economic and managerial landscapes.
5. To discuss innovative solutions and strategies developed through the interdisciplinary study of economics and management for driving sustainable growth and prosperity.

Methodology:

This paper employs a qualitative approach, utilizing case study of real-world example to illustrate the interdisciplinary nature of economics and management. Drawing upon insights from academic research and scholarly articles, we analyze key themes, methodologies, and contemporary challenges in the field. By synthesizing diverse perspectives and empirical evidence, we aim to present a comprehensive overview of the topic.

Case Study: Toyota Motor Corporation - Using Money Ideas and Management Plans

Introduction:

This case study looks at how Toyota Motor Corporation mixes money ideas with management plans. It shows how money things affect management choices and how good management helps make money, showing how money and management work together to make a company better. Toyota Motor Corporation is known for being good at making new things, working well, and caring about the world. It uses a mix of money ideas and management plans to do things that are good for the company. This case study shows how these two things work together to make the company successful.

Money Ideas:

Looking at the Market:

Toyota studies the market and looks at money things to understand what people like, what's happening in the market, and who they're competing against in the car industry. They look at things like how much money the country is making, how much interest people are paying on loans, and how confident people feel about spending money. This helps them make decisions about how many cars to make and sell.

Managing the Supply Chain:

Toyota also thinks about money things when they manage their supply chain. They think about how much raw materials cost, how much money they get when they exchange money in different countries, and what risks there might be in the world. They use a method called just-in-time manufacturing to make sure they don't waste money on keeping too many car parts in stock and can make more cars quickly if they need to.

Management Plans:

Making Things Efficiently:

Toyota is really good at making things efficiently. They work on reducing waste, always trying to get better, and letting their employees help make decisions. This helps them make things faster, cheaper, and better, so they can compete well in the world.

Continuous Improvement:

Toyota encourages its employees to always look for ways to make things better. They believe that always trying to improve helps them stay flexible and come up with new ideas quickly. This helps them stay competitive and keep making money even when things change.

Money and Management Working Together:

Money ideas and management plans are both really important for Toyota's decisions. Money ideas help Toyota decide things like how much to charge for their cars or where to make them, and management plans help them make their cars better and faster.

Money Ideas Help Decide Things:

For example, when money things like exchange rates or interest rates change, Toyota might change how much they charge for their cars or how many they make in different countries. They also look for ways to save money by making parts closer to where they sell their cars.

Management Plans Make Things Better: Toyota's management plans, like making things efficiently or always improving, help them make more money. These plans help them make their cars faster, save money on making them, and make them better quality. This helps Toyota make money even when things are hard.

Looking at Things from Different Angles: Toyota looks at money and management plans in different ways.

Understanding the Market and Making Things: Toyota uses money ideas like GDP growth and exchange rates to help decide what new cars to make. They also work with money experts to help make their cars better and save money.

Making Things and Managing the Supply Chain: Toyota's way of making things quickly and using its supply chain to save money shows how money and management plans work together.

Global Business and Making Things for Different Countries:

Toyota changes how it works in different countries to fit the money and management plans there. They also use different ways of leading teams from different places to make sure everyone works well together.

Caring about the Environment:

Doing Things for the Environment: Toyota cares about the world and makes cars that are good for the environment. They work on new kinds of cars that use less fuel and find new ways to make their factories cleaner. Money ideas like not wasting things and keeping costs low help them do this.

Making Money and Doing Good Things:

Toyota knows that doing good things for the world can also help them make money. They use management plans to balance making money with doing things that are good for the environment and society.

Making Money and Caring about People:

Thinking about People and Making Money: Toyota thinks about the people who work for them and the people who buy their cars when they make decisions. They use money ideas to help make decisions that are good for everyone, like helping communities and being good to their workers.

Making Money and Planning for the Future:

Toyota's plans for the future help them make money in the long run. They work on things like saving money and making their brand better so they can keep making money even when things change.

In conclusion: The case study of Toyota Motor Corporation shows how money ideas and management plans work together. By making money ideas part of how they plan things and always trying to improve, Toyota stays a leader in making cars. This shows how important it is for companies to use money ideas in their management plans to be successful.

Navigating Contemporary Challenges in Economics and Management

In the dynamic landscape of economics and management, organizations face a myriad of contemporary challenges that require strategic foresight, innovative solutions, and adaptability to thrive. This essay examines key challenges spanning economic, technological, social, and environmental domains, highlighting their implications and offering insights into effective mitigation strategies.

Economic Challenges:

1. Global Economic Uncertainty:

The interconnectedness of global markets exposes organizations to economic volatility, geopolitical tensions, and macroeconomic shocks. Factors such as trade disputes, currency fluctuations, and economic recessions pose significant challenges for businesses, disrupting supply chains, affecting consumer confidence, and dampening investment sentiment.

2. Income Inequality:

Rising income inequality within and across nations presents ethical, social, and economic dilemmas. Disparities in wealth distribution limit market opportunities, hinder social mobility, and undermine inclusive economic growth. Organizations must navigate this challenge by adopting fair labor practices, promoting diversity and inclusion, and advocating for policies that address income inequality.

Technological Challenges:

1. Digital Disruption:

The rapid advancement of technology, including artificial intelligence, automation, and blockchain, disrupts traditional business models, reshapes industries, and creates both opportunities and threats for organizations. Embracing digital transformation is essential for remaining competitive, enhancing operational efficiency, and meeting evolving customer expectations.

2. Data Privacy and Cybersecurity:

The proliferation of data-driven business models raises concerns about data privacy, security breaches, and regulatory compliance. Organizations must prioritize robust cybersecurity measures, implement data protection protocols, and foster a culture of data ethics to safeguard sensitive information and maintain consumer trust in an increasingly digital world.

Social Challenges:

1. Changing Workforce Dynamics:

The emergence of remote work, gig economy platforms, and generational shifts in workforce demographics redefine traditional employment structures and organizational dynamics. Managing a diverse, geographically dispersed workforce requires innovative approaches to talent acquisition, retention, and development, as well as fostering a culture of collaboration and inclusion.

2. Stakeholder Expectations:

Growing societal awareness of environmental sustainability, social responsibility, and corporate governance places pressure on organizations to demonstrate ethical behavior, transparency, and accountability. Meeting stakeholder expectations entails integrating environmental, social, and governance (ESG) considerations into business strategies, fostering stakeholder engagement, and aligning corporate values with societal values.

Environmental Challenges:

1. Climate Change and Resource Scarcity:

The escalating threat of climate change, coupled with diminishing natural resources, poses existential risks to businesses and communities worldwide. Organizations must mitigate their environmental impact, adopt sustainable business practices, and invest in renewable energy solutions to mitigate climate-related risks, enhance resilience, and contribute to a more sustainable future.

2. Supply Chain Disruptions:

Extreme weather events, geopolitical instability, and environmental degradation disrupt global supply chains, leading to production delays, inventory shortages, and increased costs for organizations. Enhancing supply chain resilience through diversification, localization, and risk mitigation strategies is crucial for mitigating disruptions and ensuring business continuity.

Mitigation Strategies:

1. Scenario Planning and Risk Management:

Organizations can proactively anticipate and mitigate economic, technological, social, and environmental risks by conducting scenario planning exercises, stress testing financial models, and implementing robust risk management frameworks. By identifying potential threats and developing contingency plans, businesses can enhance their resilience and adaptability to changing market conditions.

2. Innovation and Adaptation:

Embracing innovation and agility is essential for organizations to thrive in a rapidly evolving landscape. Investing in research and development, fostering a culture of experimentation, and embracing disruptive technologies enable businesses to stay ahead of the curve, seize new opportunities, and differentiate themselves in the marketplace.

3. Collaboration and Partnerships:

Collaborative partnerships with government agencies, non-profit organizations, academia, and industry peers enable organizations to leverage collective expertise, resources, and networks to address complex challenges more effectively. By fostering collaboration and knowledge-sharing, businesses can drive meaningful impact and create shared value for society.

4. Corporate Social Responsibility (CSR):

Embedding CSR principles into business operations, supply chains, and stakeholder engagements demonstrates a commitment to ethical leadership, sustainable development, and long-term value creation. Organizations can enhance their reputation, attract talent, and foster customer loyalty by integrating CSR initiatives into their corporate strategy and decision-making processes.

5. Continuous Learning and Adaptation:

In an era of rapid change, organizations must prioritize continuous learning, skill development, and organizational agility to remain competitive and resilient. Investing in employee training programs, embracing a growth mindset, and fostering a culture of innovation enable businesses to adapt to evolving market dynamics, seize emerging opportunities, and thrive in the face of adversity.

Result and Discussions:

1. Theoretical Underpinnings: We delve into the theoretical foundations of economics, exploring concepts such as scarcity, opportunity cost, and market efficiency, and their relevance to management practices.

2. Practical Applications: We examine how economic principles inform organizational decision-making processes, including resource allocation, pricing strategies, and investment decisions.

3. Globalization and Cross-cultural Dynamics: We analyze the impact of globalization on economic and managerial landscapes, including the emergence of international business strategies and the need for cross-cultural leadership competencies.

4. Technological Advancements: We discuss the role of technological advancements, such as big data analytics and artificial intelligence, in revolutionizing economic and managerial practices, and the implications for organizational strategies.

5. Innovative Solutions: We highlight innovative solutions and strategies developed through interdisciplinary approaches to economics and management, including sustainable business models, digital transformation initiatives, and inclusive leadership practices.

Conclusion:

In summary, Toyota Motor Corporation shows how combining economic and management principles with sustainability efforts leads to success. This demonstrates that success in organizations involves using different areas of knowledge. Toyota achieves this by using economic ideas, creative management methods, and a focus on sustainability. This helps Toyota create value, stay strong in tough times, and make the world a better place. To sum up, this study emphasizes how important it is to look at economics and management together. When organizations use both economic theory and good management, they can deal with challenges, use new technology, and grow sustainably. By working together and exploring different fields, we can find new ideas and solutions to the problems organizations face in today's ever-changing world.

In conclusion, dealing with modern challenges in economics and management means using many different strategies. This includes being resilient in economics, using new technology, caring about society, and protecting the environment. By taking active steps to handle economic uncertainties, embracing digital changes, creating inclusive workplaces, and focusing on sustainability, organizations can not only manage risks but also find new chances for growth, stand out, and make a positive impact on society in a complex and connected world.

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Impact of Social Media Marketing

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Abstract:-

The emergence of social media marketing has significantly altered the dynamics of business- to-customer interactions, presenting both novel opportunities and obstacles. This article analyzes the impact of social media marketing on businesses and consumers, with a specific focus on major platforms like Facebook, Instagram, Twitter, Linked In, and TikTok. It explores the advantages, including heightened brand visibility, enhanced customer engagement, and cost-effective promotional avenues. Conversely, it also delves into challenges such as managing diverse platforms, ensuring content consistency, measuring return on investment (ROI), addressing negative feedback, and adapting to algorithmic shifts. In conclusion, social media marketing has revolutionized marketing practices, necessitating businesses to continually evolve and adapt to effectively navigate the digital landscape.

Keywords: emergence, Instagram, TikTok, visibility, algorithmic, evolve

Introduction:

The advent of social media marketing has transformed how businesses interact with their target audience, offering novel avenues for engagement. Platforms like Facebook, Instagram, Twitter, Linked In, and TikTok have become indispensable tools for businesses seeking to connect with customers and market their offerings. This article examines the impact of social media marketing on businesses and consumers, highlighting its benefits and

challenges. The proliferation of social media platforms has revolutionized marketing approaches, enabling businesses to reach a vast audience at minimal expense. However, this shift in marketing practices also presents unique challenges, such as managing various platforms, maintaining brand consistency, evaluating campaign effectiveness, and promptly addressing negative feedback. Understanding these challenges is crucial for businesses aiming to effectively utilize social media and remain competitive in today's market. This article will explore the advantages of social media marketing, including heightened brand visibility and increased customer engagement. Additionally, it will address the challenges businesses encounter, such as juggling multiple platforms and assessing return on investment (ROI). By gaining insights into the impact of social media marketing, businesses can develop more strategic approaches to engaging with their audience and driving business success. Social media marketing has transformed how businesses interact with their customers. Platforms like Facebook, Instagram, Twitter, Linked In, and TikTok have enabled companies to engage directly with their target audience in unprecedented ways. This article delves into the impact of social media marketing on businesses and consumers, shedding light on its benefits and challenges.

Study of the Objectives:

1) Investigate how social media marketing influences brand awareness among consumers.
2) Evaluate the effectiveness of social media marketing in improving customer engagement and fostering loyalty.
3) Assess the impact of social media marketing on driving website traffic and boosting conversion rates.
4) Identify and analyze the challenges businesses encounter when implementing effective social media marketing strategies.
5) Propose actionable recommendations for businesses to enhance their social media marketing initiatives and address challenges.
6) Explore upcoming trends and advancements in social media marketing that could impact businesses and consumers in the future.

Research and Methodology:

This study will adopt a mixed-methods approach, blending quantitative and qualitative research techniques to gain a holistic understanding of social media marketing's impact on businesses and consumers. Quantitative Research: A survey will be administered to a consumer sample to gather data on their brand awareness through social media marketing, their engagement with brands on social platforms, and how social media influences their purchasing behaviour. Qualitative Research: In-depth interviews will be conducted with business owners and marketing professionals to explore their insights, challenges, and strategies in social media marketing. These interviews will provide nuanced perspectives on the effectiveness of social media marketing for businesses.

Suggestions:

1. **Audience Targeting**: Tailor your social media marketing to specific demographics or segments interested in your products or services to boost engagement and conversions.
2. **Brand Consistency**: Maintain a uniform brand image across all social media platforms to reinforce brand identity and foster trust.
3. **Visual Content**: Use visually appealing content like images, videos, and info graphics to enhance engagement and share ability.
4. **Performance Monitoring**: Regularly assess the performance of your social media campaigns, analyzing metrics such as engagement, reach, and conversions to refine your strategies.
5. **Trend Awareness**: Stay updated with current social media trends and incorporate relevant ones to keep your content fresh and engaging.

Benefits of Social Media Marketing:

1) **Enhanced Brand Visibility**: Through social media, businesses can reach a broader audience and increase brand recognition. Regular, engaging content helps them stay top-of-mind with their target customers.
2) **Improved Customer Engagement**: Social media facilitates real-time interaction between businesses and customers, fostering higher satisfaction and loyalty.
3) **Cost-Effective Advertising**: Compared to traditional advertising, social media marketing is often more affordable. Businesses can reach a larger audience with minimal advertising costs.
4) **Targeted Advertising**: Social media platforms offer sophisticated targeting options, enabling businesses to reach specific demographics based on interests, behavior, and other criteria.
5) **Increased Website Traffic and Conversions**: By sharing website links, businesses can drive traffic and potentially boost sales and conversions.

Challenges of Social Media Marketing

1) **Managing Multiple Platforms:** With numerous social media platforms available, managing and maintaining a presence on all of them can be challenging for businesses.
2) **Maintaining Consistency**: Consistency is crucial in social media marketing. Businesses must regularly post content to keep their audience engaged.
3) **Measuring ROI:** Determining the return on investment (ROI) of social media marketing efforts can be tricky. Tracking metrics such as engagement, website traffic, and conversions is essential.
4) **Negative Feedback and Crisis Management**: Social media can amplify negative feedback and criticisms. Businesses must address issues promptly and effectively to protect their reputation.
5) **Algorithm Changes**: Social media algorithms are constantly evolving, impacting the reach and visibility of businesses' content. Staying abreast of these changes can be demanding.

Conclusion:

Social media marketing has transformed how businesses engage with their audience, providing a powerful platform for interaction, education, and persuasion. Its impact on businesses and consumers is substantial, offering advantages like heightened brand recognition, enhanced customer engagement, and cost-efficient promotion. However, it also poses challenges such as managing diverse platforms, gauging ROI, and Managing negative feedback. To overcome these challenges and capitalize on social media marketing, benefits, businesses should prioritize audience targeting, brand uniformity, and active engagement. Incorporating visual content, tracking campaign performance, staying abreast of trends, and leveraging paid ads and influence collaborations are also vital strategies. Furthermore, delivering value to the audience and being open to experimentation and adaptation are key to long-term success. In conclusion, social media marketing demands adaptability, creativity, and a customer-eccentric approach. By understanding its impact and implementing effective strategies, businesses can strengthen their brand presence, foster customer loyalty, and drive business growth in the digital era.

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The Socio-Economic Relevance in the Works of Lee Maracle, Katherena Vermette, and Beatrice Culleton towards Sustainability

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Abstract:-
This paper examines the socio-economic relevance of Canadian Aboriginal literature towards sustainability through the works of three prominent Indigenous authors: Lee Maracle, Katherena Vermette, and Beatrice Culleton. By analysing their literary contributions, this research explores how Indigenous perspectives on culture, environment, and community resilience intersect with themes of socio-economic development and environmental sustainability. Drawing on theories from postcolonial studies, environmental humanities, and Indigenous studies, this study investigates the ways in which Maracle, Vermette, and Culleton portray Indigenous knowledge systems, cultural revitalization efforts, and economic empowerment initiatives within their respective narratives.

Keywords: Socio-economic, Interconnectedness, Marginalization, Storytelling.

Introduction:

Indigenous Knowledge Systems and Cultural Revitalization:

Lee Maracle, Katherena Vermette, and Beatrice Culleton each offer unique perspectives on Indigenous knowledge systems and cultural revitalization efforts within their literary works. Maracle's writings often centre on the importance of oral traditions, storytelling, and intergenerational knowledge transmission in preserving Indigenous cultures and fostering community resilience. Vermette explores the intersection of Indigenous cultural practices with contemporary urban life, highlighting the ongoing efforts of Indigenous communities to maintain cultural connections and revitalize traditional knowledge in urban environments. Culleton's narratives frequently depict the impacts of colonization on Indigenous cultural practices and the resilience of Métis communities in reclaiming and revitalizing their cultural heritage.

Economic Empowerment Initiatives:

In addition to cultural revitalization, Maracle, Vermette, and Culleton also address economic empowerment initiatives within their literary works. Maracle's writings often depict Indigenous economic systems and land-based livelihoods, emphasizing the importance of sustainable resource management and Indigenous sovereignty in economic development. Vermette explores themes of economic resilience and community solidarity in the face of socio-economic challenges, highlighting the ways in which Indigenous communities navigate economic opportunities and constraints in urban settings. Culleton's narratives shed light on the socio-economic impacts of colonization on Indigenous communities and the resilience of Métis people in pursuing economic self-sufficiency through initiatives such as entrepreneurship, land-based enterprises, and cultural tourism.

Intersectionality of Culture, Environment, and Community Resilience:

Across their respective works, Maracle, Vermette, and Culleton demonstrate how Indigenous perspectives on culture, environment, and community resilience intersect with themes of socio-economic development and environmental sustainability. They highlight the interconnectedness of cultural preservation, environmental stewardship, and social justice within Indigenous communities, emphasizing the importance of holistic approaches to sustainable development that prioritize Indigenous knowledge systems, cultural revitalization efforts, and economic empowerment initiatives. By centering Indigenous voices and experiences, their literary works contribute to broader discussions on sustainability, Indigenous rights, and holistic well-being, offering valuable insights into the socio-economic dimensions of Canadian Aboriginal literature.

The socio-economic relevance of literature, particularly within Indigenous contexts, offers profound insights into sustainability, cultural preservation, and community resilience. Through their literary contributions, these authors offer diverse perspectives on the socio-economic dimensions of sustainability, drawing on themes of culture, environment, and community empowerment. By analysing their works, we seek to explore how Indigenous literature serves as a platform for addressing pressing socio-economic and environmental challenges while advocating for sustainable development within Indigenous communities.

Analysis of Lee Maracle's Work:

Lee Maracle, a prominent Sto:lo author and scholar, has made significant contributions to Indigenous literature with works such as *Ravensong* and *Celia's Song*. Maracle's writings often explore the intersections of culture, identity, and environmental stewardship within Indigenous communities. Through her portrayal of Indigenous knowledge systems, traditional ecological practices, and cultural revitalization efforts, Maracle highlights the socio-economic relevance of preserving Indigenous cultures for sustainable development. Her works emphasize the importance of reclaiming Indigenous languages, protecting traditional territories, and promoting economic empowerment initiatives rooted in Indigenous values and self-determination.

In *Ravensong* by Lee Maracle, the story follows the lives of members of the Sto:lo nation in British Columbia, Canada. Through the experiences of characters like Stacey, the protagonist, and her family, Maracle delves into themes of intergenerational trauma, connection to the land, and the struggle to maintain cultural identity in the face of external pressures. The ravens, significant figures in Indigenous mythology, serve as a powerful symbol throughout the novel, representing both the resilience of Indigenous peoples and the ongoing struggle for sovereignty.

Similarly, in *Celia's Song* by Lee Maracle, the focus is on a Haisla community in the Pacific Northwest. The novel explores the connections between the human and natural worlds through the character of Celia, a young Indigenous woman who possesses a deep understanding of the land and its spirits. As the community faces the threat of environmental degradation from industrial development, Celia becomes a voice for the land, advocating for its protection and preservation.

Both Ravensong and Celia's Song offer rich portrayals of Indigenous culture and traditions, highlighting the importance of preserving ancestral knowledge and practices in the face of modern challenges. Through these works, readers gain insight into the complex intersections of culture, identity, and environmental stewardship within Indigenous communities, and the ongoing struggle to maintain a sense of connection to the land amidst social and ecological change.

Analysis of Katherena Vermette's Works:

Katherena Vermette, a Métis author from Treaty One territory in Manitoba, addresses issues of identity, resilience, and urban Indigenous experiences in her works such as *The Break* and *River Woman*. Vermette's narratives often delve into the socio-economic challenges faced by Indigenous communities, particularly in urban environments, while also celebrating the resilience and strength of Indigenous women and families. Through her portrayal of economic struggles, cultural resilience, and community solidarity, Vermette highlights the importance of Indigenous perspectives in shaping sustainable development strategies that prioritize cultural preservation, social equity, and environmental justice.

In *The Break*, Vermette presents a multigenerational story set in Winnipeg's North End, focusing on the lives of several Indigenous women and their families. The novel explores themes of trauma, violence, poverty, and systemic racism, highlighting the harsh realities faced by Indigenous people living in urban settings. The characters grapple with issues such as addiction, domestic abuse, and the intergenerational effects of colonialism, all of which contribute to the cycle of poverty and hardship in their community.

Similarly, in *River Woman*, Vermette tells the story of a young Métis woman named Katherena, who navigates the challenges of urban life in Winnipeg while grappling with her own personal struggles. Through Katherena's journey, the novel sheds light on the socio-economic disparities faced by Indigenous peoples in urban environments, including homelessness, unemployment, and discrimination. At the same time, the novel celebrates the strength and resilience of Indigenous women, who form tight-knit communities and support one another in the face of adversity.

Both *The Break* and *River Woman* offer powerful critiques of the systems of oppression that perpetuate poverty and marginalization within Indigenous communities, while also highlighting the resilience and agency of Indigenous women and families. Through these works, Vermette challenges stereotypes and amplifies the voices of those who are often silenced, offering a nuanced portrayal of Indigenous experiences in urban settings.

Analysis of Beatrice Culleton's Works:

Beatrice Culleton, a Métis author of Cree descent, explores themes of identity, colonization, and intergenerational trauma in works like *In Search* *of April Raintree* and *April Raintree*. Culleton's narratives shed light on the socio-economic impacts of colonization on Indigenous communities, particularly Métis peoples, while also highlighting the resilience and resistance of Indigenous individuals and families in reclaiming their cultural heritage and economic independence. Through her portrayal of economic empowerment initiatives, land-based activism, and cultural revitalization efforts, Culleton underscores the interconnectedness of socio-economic development, cultural preservation, and environmental sustainability within Indigenous contexts.

In Search of April Raintree and *April Raintree* by Beatrice Mosionier both provide insightful examinations of the socio-economic impacts of colonization on Indigenous communities, particularly Métis peoples, while also highlighting the resilience and resistance of Indigenous individuals and families in reclaiming their cultural heritage and economic independence.

Set in Manitoba, Canada, both novels follow the lives of two Métis sisters, April and Cheryl Raintree, who are separated from their family and placed in foster care at a young age. Throughout their experiences, the novels explore the intergenerational trauma, discrimination, and systemic barriers faced by Métis people as a result of colonization.

The socio-economic impacts of colonization are evident throughout the sister's lives. They encounter poverty, racism, and marginalization, which limit their opportunities for education, employment, and social advancement. The loss of their cultural connections and identity further exacerbates their struggles, as they grapple with feelings of displacement and alienation in a society that does not fully accept or understand their heritage.

Despite these challenges, April and Cheryl demonstrate remarkable resilience and determination. They resist assimilation and reclaim their Métis identity, embracing their heritage and cultural traditions. Through their journey, the novels underscore the importance of cultural pride and community support in overcoming the effects of colonization.

Additionally, both novels highlight the efforts of Indigenous individuals and communities to assert their rights and achieve economic independence. April and Cheryl, along with other characters, strive to break free from the cycle of poverty and dependence by pursuing education, entrepreneurship, and advocacy. Their stories serve as powerful reminders of the strength and resilience of Indigenous peoples in the face of adversity.

Overall, *In Search of April Raintree* and *April Raintree* offer poignant reflections on the socio-economic impacts of colonization on Métis communities, while also celebrating the resilience and resistance of Indigenous individuals and families in reclaiming their cultural heritage and economic independence.

Conclusion:

In conclusion, the works of Lee Maracle, Katherena Vermette, and Beatrice Culleton offer valuable insights into the socio-economic dimensions of sustainability within Indigenous communities. Through their literary contributions, these authors highlight the importance of cultural preservation, economic empowerment, and community resilience in addressing pressing socio-economic and environmental challenges. By centering Indigenous voices and experiences, their works contribute to broader discussions on sustainability, social justice, and holistic well-being, emphasizing the need for collaborative and inclusive approaches to sustainable development that prioritize Indigenous knowledge systems, cultural revitalization efforts, and economic empowerment initiatives.

The socio-economic relevance of Aboriginal literature in Canada towards sustainability lies in its ability to bridge diverse disciplines, perspectives, and stakeholders to promote holistic approaches to development that prioritize cultural integrity, environmental stewardship, and social equity within Indigenous communities.

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Ranks of Centrality Scores and Demographic Size of Urban Centres in Belagavi District of Karnataka

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Abstract:-

This study developed a hierarchical structure of the 31 urban centres in Belagavi district by using their essential characteristics and functional attributes for classifying the urban centres. Based on the centrality scores of all the towns by using the Godlund's retail trade and service method and V.N.P. Sinha's modified method of Davies (by using the tertiary services) delineate the study emphasized the importance of the different functional centre's as service centres in the Belagavi district whose economy is essentially based on retail market service. These centres were considered as 'naturally' occurring service centre's capable of stimulating growth impulses in their catchment areas. The study recommended the adoption of the hierarchical order of the urban centre's as a workable framework for planning the development of the Belagavi district.

Keywords: Hierarchy, Centrality, Functional index, Urban Centres.

Introduction:

Centrality is the measure of importance of a place in terms of its functional capacity to serve the needs of the people in the surrounding area. Centrality can be expressed qualitatively such as, low and high centrality, as well as quantitative by centrality values which are obtained by converting the functional base of a place into scores on the basis of frequency and importance of the function. There has been a concern among the geographers to establish a precise relationship between the size of settlement in terms of population and the range of services which it offers. Centrality, however, depends upon the intensity of central functions. The functions or services which an urban settlement performs not merely for itself, but primarily for the surrounding area which is dependent for many socio-economic needs on the centre, but is not a constituent part of it, are known as 'central functions' and the centres or places wherein these functions are performed, known as central places. A central place can be only that where an exchange of central goods and services for population other than the local one exists or in other words, where a certain central institution through which such an exchange exists is made possible. Thus a central place can be defined as a permanent human establishment, where an exchange of goods, services and necessities socio-economic in nature, primarily and basically for population other than the local one, exist and which therefore commands as its region. A great variety of criteria for determination of urban centres has been used in different studies. Most of scholars agree that the size of population alone is not a satisfactory determinant of centrality. They emphasize the need for an index derived from the range of central functions present in almost all urban centres.

Study Area: Belagavi is a district and also the headquarters of the Belgaum Revenue Division in the state of Karnataka and the city of Belagavi is the district headquarters located in North karnataka It is also called as the second capital of Karnataka state, as it houses the second legislative building "Suvarn souda", where the Karnataka Legislature will meet once a year. According to the 2011 Census of India, it has 4,778,439 total population of which 24.03% living in urban areas, making it the second most populous district in Karnataka.

The district has 13,415 sq. kms. of geographical area, lies between 15° 23' and 16° 58' northern latitude and 74° 05' and 75° 28' eastern longitude and administratively Belagavi district has been divided into 10 thasils.

Objectives: The main objectives are:

1. To analyze the centrality based hierarchy of urban centres in Belagavi district.
2. To identify the relationship between the ranks of centrality scores and population size of urban centres.

Data Base: The necessary data's are collected from district statistical report and 2011 Census of India reports for demarcating the position of urban centres in Belagavi district on the basis of population strength.

Metodology: The centrality of all the towns of Belagavi district is worked out by using the Godlund's retail trade and service method and V.N.P. Sinha's modified method of Davies (by using the tertiary services).

Comparison of Population Size with the Centrality Scores:

To make a comparison between population size of urban centres and their centrality scores the methods given by Godlund and V.N.P. Sinha are used. In order to make them commensurable, the absolute centrality scores were used for calculating the correlation matrix between two methods a population size of urban centres, as given in Table No: 1:

Table 1: Correlation Matrix of Two Methods.

	X_1	X_2
Y_1	**0.5741**	**0.9879**

Note: Y_1 is the population size of the urban centres

X_1 is the centrality scores obtained by Godlund's method

X_2 is the centrality scores obtained by Sinha's modified method of Davies.

This matrix reveals that between the two methods, the Sinha's method (modified method of Davies) of centrality scores shows high correlation with population size of urban centres (r = 0.9879) with 0.01 level significance. While the centrality scores of Godlund method show positive (+0.5741) relation with population size. It is summarised that among these two centrality methods V.N.P. Sinha's method gives more appropriate result than the Godlund's method. The industrial towns namely, Belagavi (MC), Gokak, Athani, Chikkodi, Belagavi (CB) and Gokak falls have 1st, 2nd 4th, 7th, 5th and 26th ranks in their hierarchical ladder by Sinha's method but according to Godlund's method these towns have 6th, 12th 8th, 11th, 1st and 13th ranks in their hierarchy (Table No:.2) and these towns invariably qualify for the lower rungs of the ladder. The administrative centres (tahsil headquarters) are pushed up to the higher order and these centres performing socialised functions are greatly exaggerated. The higher centrality scores indicate the greater if its position in the area. In all instances whatever the method employed, true central places always show dependable centrality.

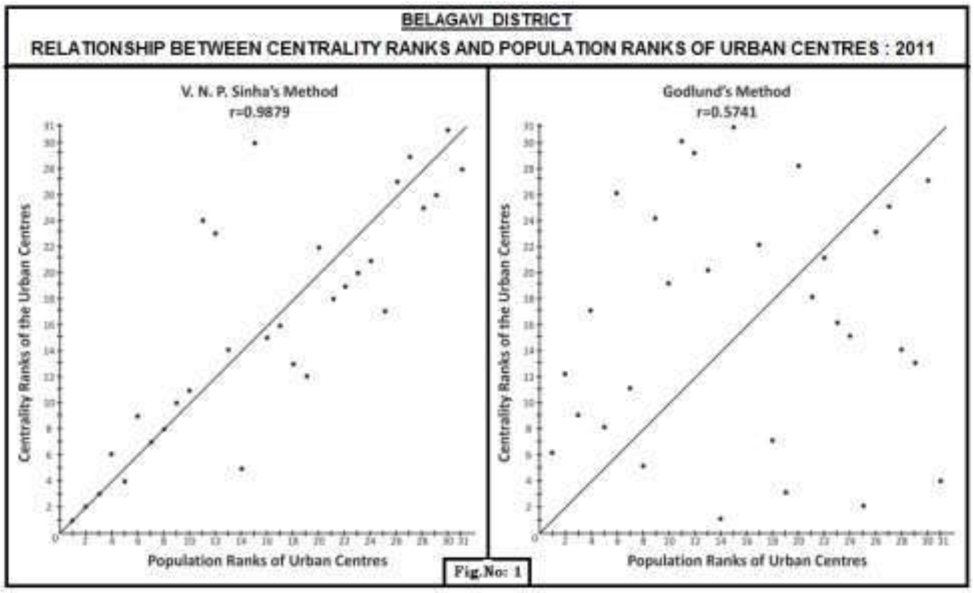
Relationship between the Ranks of Centrality Scores and Population Size of Urban Centres: The relationship between centrality ranks and population ranks of urban centres are shown on the graph, which reveal that all the urban centres are very close to the ideal line of Sinha's method than the Godlund's method. The higher order urban centres indicate the perfect relationship between the centrality and their population size.

Table 1: Population Size and Centrality Scores of Urban Centres of Belagavi District (2011).

Sr. No	Name of the Town	Population Size of the Town	Centrality Scores by Godlund Method	Ranks	Centrality Scores by modified Davies Method	Ranks
1	Belagavi (MC)	490,045	21.16	6	45.89	1
2	Gokak	79,121	18.32	12	6.41	2
3	Nippani	62,865	19.03	9	5.3	3
4	Bailhongal	49,182	16.43	17	3.58	6
5	Athani	47,842	19.54	8	4.14	4
6	Savadatti	41,215	12.51	26	2.28	9
7	Chikkodi	38,307	18.70	11	3.17	7
8	Ramadurg	34,800	21.32	5	2.33	8
9	Sankeshwar	34,637	14.24	24	2.18	10
10	Mudalgi	29,128	16.13	19	2.08	11
11	Sadalgi	23,790	6.63	30	0.7	24
12	Kudchi	23,154	10.82	29	0.71	23
13	Hukkeri	22,988	15.96	20	1.62	14
14	Belagavi (CB)	19411	44.45	1	3.82	5
15	Konnur	19386	5.78	31	0.5	30
16	Khanapur	19309	18.78	10	1.6	15
17	Raibag	18736	15.59	22	1.3	16
18	Mache	18073	20.92	7	1.67	13
19	Peeranwadi	17874	21.94	3	1.73	12
20	Kakati	13946	11.66	28	0.72	22
21	Hindalga	13741	16.18	18	0.98	18
22	Sambra	13159	15.95	21	0.93	19
23	Yellur	11850	17.46	16	0.92	20

24	Benaknalli	10999	17.81	15	0.87	21
25	Kangrali-BK	10496	22.72	2	1.06	17
26	Mouje-Nandagad	8837	15.00	23	0.59	27
27	Sulebavi	8503	13.89	25	0.52	29
28	Kangrali-KH	8204	17.84	14	0.65	25
29	Gokak falls	8080	18.00	13	0.64	26
30	Mutga	7561	11.68	27	0.39	31
31	Londa	5956	22.38	4	0.59	28

Source: Computed by Author.



Hierarchiy of Urban Centres In Belagavi District:

The hierarchy of urban centres of Belagavi district is brought out in this section on the basis of functional scores. Keeping in view the complexity of the physical (soils), agricultural and cultural landscape of Belagavi district, it will not be correct to take centrality of single function as hierarchy index. The great variation in the functions of the urban centres has made this researcher to adopt centrality of tertiary workers as a determinant factor, because almost all urban centres of the region have significant population engaged in tertiary services than secondary. Although primary functions are significant in most of the towns it is not considered for analysis as it does not reveal urbanism. The Sinha’s method (Modified Davies method) of centrality index has been chosen for calculating the hierarchy of urban centres, because, it shows high degree of correlation (r = 0.9879). The centrality scores obtained from Sinha’s method (Modified Devies Method) for each urban centre has been ranked in order of their centrality scores and ranks are plotted on a log-log scale. To compare the centrality scores of Sinha’s method with Godlund’s method another log-log graph is prepared (Fig.2). The demarcated urban centres on the graphs clearly indicate different slop grouping of urban centres of different order having different levels of functional specialization.

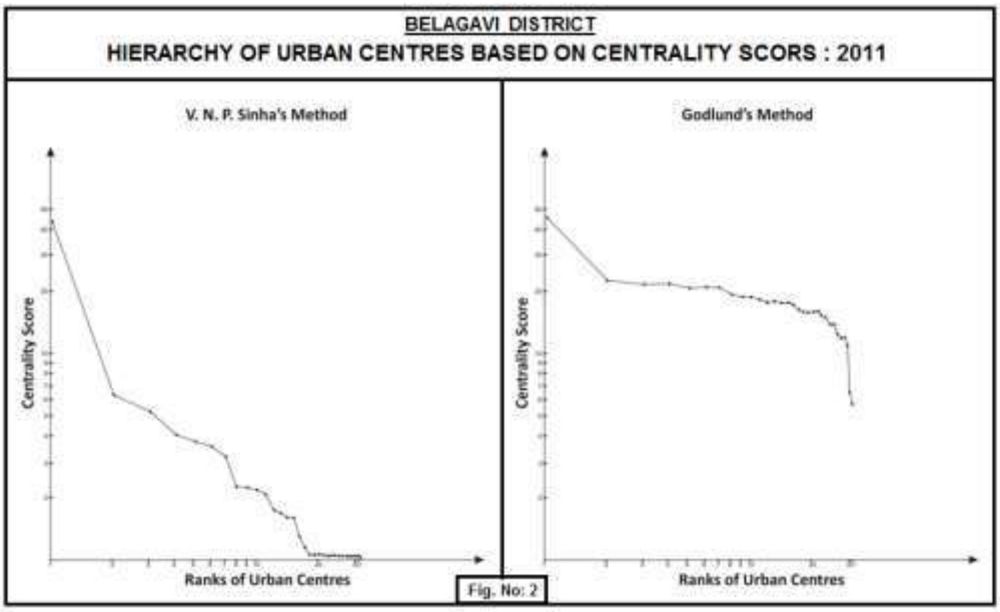


Fig. No: 2

Thus, all 31 urban centres in Belagavi district have been categorised into five different orders in the hierarchical important they are: Regional centres, Sub-regional centres, Intermediatory centres, Small centres and Local centre. The place distinguished on the above basis is real service centres as their centrality index depends entirely upon the hierarchy of the services they perform to serve the outside region.

Conclusion:

This study has sought to examine the spatial characteristics, service functions and population dynamics of urban centres in Belagavi district. The study has emphasized the importance of the urban centres as local nodal service centres. Each urban centres link many villages and therefore integrate them into the national economic system through commodity exchange, information flow and innovation spread. The urban centres facilitate trading activities in the study region whose economy is essentially based on agriculture and other related activities. Apart from their economic functions, the higher order other multi-facets central functions offer additional services of centrality that make them attractive. They are the "drivers of the urbanization process" in the region. Indeed, the urban geography and economic history of the Belagavi district cannot be understood without reference to the population dynamics and their functional diversity.

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Review of Ganigara Gana: Sculpture and Hero Stones

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Abstract:-

Most people think of bellada gana when they say gana. But the oil rigs have been noisy before. The wealth of this quantity seems to have been attributed to the Hegs, who for a time held the first place in the cottage industry in terms of paying subscriptions.Gana means a wooden or stone ladle for extracting cooking oil. Those who practice music are called Ganiga. Miners are those who use massive stone, wood, solid grains for hand mills and oxen to extract oil. Miners who were identified by Kayaka profession in the past were known as Ganiga Community, later they were identified as Ganiga, Miner Community by their profession. The traditional profession of miners did not come before today. That so many generations are indebted to Gana is an incalculably high stature of Gana's profession. The singing profession has a long history. Traditional means handed down, traditional. Gana is also as old as the word orthodoxy itself.

Keyword: Gana, Traditional occupation, Sculpture and Hero stones, Oil etc...

Introduction

Hero stones at Mallarayan Altar of Betageri in Gadag district are already famous. Inscriptions reveal that this area was an important agrahara under the administration of Belkola-300. And there is a possibility that the common people of this region may have transformed into Bhattarakere-Battarageri Betageri who fought in the battlefield. With diverse political and cultural backgrounds, the hero stones of this region introduce researchers to a variety of art elements. About these already M. Chidanandamurthy, R. Seshashasti, Rs. Shadaksharayya, S. Rajasekhara, D.V. Parashivamurthy, Veena Hugara, Shweta R. Bhasthe etc. have studied. Apart from this, there is no comparative study of the rare sculptures found in these monuments. Therefore, an attempt has been made to comprehensively review the already published articles and describe the features of the current sculptures.

Objectives:

1. Tracing traces of Gana, a profession of traditional knowledge.
2. Preserving the fringes of the vocational base community.

Scope:

Observe the Hero stones on top of the Mallarayan altar at Gadag-Bettageri in Gadag Taluk of Gadag District.The Betageri monument is very rare in terms of sculpture and consists of three panels. In the first list, arrows are planted in a row from top to bottom on a rectangular shield held up against the enemy by the hero in a standing posture. He holds a curved sword in his right hand. A few soldiers are crouched below him. His entourage includes infantrymen. The enemy is a horse rider. The rest have legs. Horses are shown galloping forward with their front legs flexed and their hind legs stretched. There is one lying below. The enemy on horseback holds a sword in one hand and raises it. The rest of them bent their bows and drew them and tried their arrows furiously.At the bottom of this list is a stone sculpture. The gana in this sculpture is depicted like a kodapana, with a big thick pillar directly planted in the middle of it. On that pole a long rope is tied to the end of another pole or yoke, sloping to the left. Also, it is seen that a long plank is attached to the listening side of the gana. So it can be said to be an oil remover. The stone sculptor may have depicted the vritti (caste) of the deceased hero or to sound the incident of Madiduda in the fight for the sake of the gana.

In the second scene, the dead hero is flying in the sky with his hands on the shoulders of nymphs. The edge of this strip is indicated by waves of clouds. Besides, there is a musical ensemble on the sides, musicians, dancers, Gandharvas flying with them in the sky. The scene consists of the Gandharvas moving across the sky in procession of the fallen heroes to heaven. Their lanky legs accentuate their movement with a backward curved design. A trumpet player in a concert. There are mridangam players, percussionists etc. The depiction of Hero Swarga in this inscription is also very elaborate. A unique influence, a hero seated on the pedestal of the heroic heaven, his heroic pose is captivating. Also attractive is the Vira Swarga mantapa, flanked by beautiful pillars, in which two semi-pillars, on top of the kapotha, carry a majestic Chaitragavavaksha in the middle. In the center of the pillars is the chief dead hero accompanied by four attendants. He alone is sitting on a high throne holding a lotus in Savyalalitasana. He places the left hand on the folded left leg. He is kiritadhari and wears kundala, saree, bangles, bangles, dresses. Below him, two tunnellers are sitting holding a lotus. Next to his head, two people are standing with a stove. On this chaitya there is Kirti's face in the middle while Makaras are depicted on the sides of the gavaksha. At the top of the sculpture there is a school model tower and in the middle there is an image of a garbage can. (Figure-1) Another four-tiered beautiful stone sculpture of heroes here has their images displayed in large size to mark the main hero. A hero is fighting holding a curved sword and a shield. There are foot soldiers in his family. They are portrayed as narrow as dwarfs. The hero's ears are ringed. There are thick bracelets on the hands. He has chains around his neck, a belt around his waist and a dagger. Enemy warriors are lying down on the ground.

The horses of the enemy soldiers are shown galloping forward with their front legs bent and their hind legs stretched out and the warriors seated on them are seen fighting valiantly. In this enemy force, the footmen are bending bows and drawing arrows and experimenting with arrows. In the design of the above sculpture structure on the top of the battle scene list, here too, the stone sculpture is specially depicted.

In the second stage the dead hero is flying in the sky to heaven along with the nymphs. At his sides is a musical ensemble of flower garland bearers, trumpeters and mridangam players. In the third phase the hero is seated on a throne holding a lotus among the nymphs. Two nymphs hold lotuses and sit at his feet. Two more nymphs are crouching at the sides of his head. This scene is depicted between two semi-colons with Chaityagavaksha. In the fourth stage, a depiction of a Dravidian style temple can be seen on the Chaityagavaksha. On the outer sides of its semi-pillars are lions standing with their forelegs raised, while a Shivlinga is beautifully seen inside. The apex of the sculpture is also in the school pattern, with a beautiful kalasa image engraved on it. (Figure-2)

Altogether these are very rare and beautiful monumental sculptures, and the artist's skillful execution of these sculptures reflects the fact that the sculptor was very clever and creative. An incident that happened to common people who were illiterate but did not know how to write. These monumental sculptures deliver the detail. The religion of the hero who sometimes died. The sculptor uses his imagination and intellect to reveal the images that symbolize the profession and the event that led to the death. These are also heroic monuments that indicate such events. The stone stucco sculptures found in these memorial sculptures suggest that this image is probably meant to indicate the profession (caste) of the deceased hero. Or a career-related quarrel may have caused the hero's death. As the battle depiction in the bottom plate is also gruesome, he must have been an important warrior of a miner clan. Also, on the occasion of the death of a hero, the Hero stones may have been erected and his gana may have been indirectly donated to the temple. There is also a possibility that the notice of donation was given by drawing it in relief without writing it down.

These Hero stones are specially worshiped with oil on important festivals The sculptures found in Hero stones are made by Traditional Ganiga community For the stone sculptures and to show that the hero is a miner People's faith practices further strengthen us as primary sources. Presently as they are preserved, no rituals are performed. Even though Even today, these heroes have left an indelible impression on the people there. Besides, the antiquity of the mining profession dates back to AD. Leads to the 9th century.

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Out comes:

1) Oil mills community person is involved in the struggle during the reign of the kings of that time, in his memory the ocupication symbol is placed in the heroes.
2) It is clear that there was a tradition oil ocupication profession during the reign of Raja Maharaja.
3) In the days when there were no writing materials, hero stones were erected to tell about careers, memories of heroes, traces of kings Sculpture and hero stones

Suggestions:

1. Hero stones should be preserved to inform the future generations of the rich period of the origin communities.
2. The government should make plans to get the profession-based community involved in the profession again.
3. Training should be given to those who are going to make a career from the veterans of the tradition community.
4. A 60 year old professional person from a professional community should be given mashasan. This can save career.

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Field work Photos:

Veeragallu, Betageri (Picture-1)

Veeragallu, Betageri (Picture-2)

Image of oil rock mass, Fig-1

Image of oil rock mass, Fig-2

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Sustainability Factors of Self-Help Groups in Disaster-Affected Communities in Sooradimangalam

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Abstract:-

Self-help groups are informal organizations that leverage social capital to overcome resource constraints and serve as a catalyst for rural development, gender equality, and social empowerment. This study seeks to determine the elements that influence the sustainability of self-help groups in natural disaster-affected communities. Natural disasters such as droughts, floods, and cyclones provide significant obstacles to livelihoods in disaster-prone areas. The study is based on survey data from two different disaster-prone locations: the cyclone- and flood-prone area and the drought-prone Sooradimangalam in Chengalpattu, Tamil Nadu.

Keywords: Sustainability, measurement – SHG- Disaster - Management

Introduction:

This paper objective to assist perceives the factor accountable for the sustainability of social companies especially self-help companies inside marginal groups. It explores how a social company copes with sustainable improvement demanding situations through specializing in its difficult elements. The phrase ‘’factor’’ on this examine has been used as a synonym of the phrase ‘’component’’, not as an abbreviation of element analysis, and does no longer have any statistical connotation. It has been used for less difficult expertise for the non statistical audience.

One of the biggest demanding situations confronted via these micro social corporations (i.e., SHGs) is mitigating financial shocks related to weather exchange and herbal screw ups. Similarly, poor rainfall and temporal and spatial variability in intensity and importance within the Chengalpattu, Kancheepuram, and Chennai districts have made them drought-inclined. Rural communities global rely upon agricultural activities for his or her livelihood, making them susceptible to the detrimental consequences of climate changes due to their strong dependence on agricultural manufacturing. These-fore, many SHGs in these regions face excessive situations in their efforts closer to poverty relief and empowerment.

Social Enterprises and Sustainability Measurement:

Social corporations are commonly identified as not-for-earnings enterprise. In this have a look at, the social corporations which have been taken into consideration are extensively known as self-assist businesses in the South Asian place. Self-assist agencies, also referred to as mutual help, mutual resource, or help companies, are businesses of people who provide mutual assist for each different. The members proportion a commonplace intention to assist every other deal with and recover from the scenario.

The mission geared toward profit-making are predominantly and legally meant to perform a social position, but they're entitled to make a earnings. Legal constraints blind the “non –income” undertakings inside the case of earnings distribution; but, they are geared up with the prospect of the usage of philanthropic contributions to cover prices. Conversely, the 0.33 form of social organization attempts to be commercially a hit without previous or flouting moral and responsible practices. However, the aim of monetary price introduction has been a foremost cause of these corporations.

Sustainability Indicators Of Self-Help Groups:

A variable is an indicator this is used to pick out idea, where the idea poses as an impartial or structured variable. The literature assessment of sustainability dimension signs has been instrument in information and identifying the variables for in addition investigation The sustainability measurement indicator of the capacity to attend to institution activities indicates a successful self-assist group changed into recognized, which eventually turned into recognized as a variable, the size of organization, that performs an important function in the sustainability of the institution

Data And Methodology:

The research changed into a qualitative method, wherein variable had been diagnosed from the literature evaluate and validated through interviewing self-help institution contributors. Interview questions had been closed-ended; and individuals have been requested to commend on the suitability of variables identified in the literature assessment to perceive the sustainability elements of self-assist companies. The survey web sites had been villages inside the Chengalpattu location and the village of Sooradimangalam.

Discussion:

Some declare sustainability and resilience are the equal concept, while others declare them to be totally unrelated. Resilience is the ability of a gadget to withstand affects from threats and adapt to insistent stress, whereas sustainability is worried with environmental, social, and monetary structures; however, their objectives are commonplace. Because the resiliency of a sociological machine is determined by way of the significance of the energy that an organisation can to absorb challenges and preserve to carry out its duties, it matches the objectives of sustainability and is at the same time inclusive. Thus, sustainability has been chosen because the location of labour because tenets of resilience do get addressed with the aid of sustainability and vice-versa.

To summarize, Managerial Functions, agree with, fund Utilization and Easy Functioning had been recognized because the sustainability elements for social firms Managerial Functions ensure that businesses are guided by means of capable leadership and dangers are controlled correctly. This additionally acts as a self belief-constructing measure via managerial features consisting of auditing. This issue ends in the consider individuals can have for officials, fellow individuals, and the corporation, as a result prompting them to stay concerned. The need for easy finance and its usage are the opposite key elements for sustainability. This finance can be self-financing or from government establishments. Interestingly, it has also come out that usage of funds is a key aspect for sustainability. All four elements factor to Managerial Functions, Trusts, Easy Financing, and Fund Utilization, which consents with the experts' perspectives and the literature.

Conclusion:

These findings have an effect on policy decisions concerning extension and schooling applications relating a managerial capability which includes planning, organizing, monitoring, and accumulating comments. This intervention is to be added into any ability-constructing software. Technical training packages need to have those interventions. Trust is a not unusual trouble, as it could most effective be ascertained by way of normal auditing, wherein contributors establish agree with for the office bearers. Governments can deliver out a policy of compulsory audit report presentation for any loan application. This will growth the operational value, but it could be sponsored by means of monetary institutes due to the fact this may carry down their danger. Often, budget continues to be blocked in bank account, for that reason dropping their fee to inflation. To counter such situations, unique interest charge fixed deposits or bonds for social firms may be created to ensure rotation of the idle fund. Generally, the participants of SHGs are not capable of handing economic gadgets, hence secured change investments will assist them rotate the idle fund. For clean loan disbursement, SHGs can paintings with their local management on community applications and regulatory frameworks to assist green disbursement mechanisms.

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Green entrepreneurship for sustainability: it's a choice or mandate?

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Abstract

Modern world is grappling with environmental issues ranging from pollution, imbalance in ecosystem and biodiversity. Since environment is the basic factor affecting human life, preservation of this has become a priority. Different sectors pose different risks and challenges to environment. To address these issues various stakeholders such as Governments, NGO's and inter-governmental and International institutions have created awareness, formed policies etc to cater to the needs of balance of ecosystem. Sustainable development which not only includes economic development but also preserving resources and environment is the need of the day. Entrepreneurs have been identified as front runners to bring this change; hence entrepreneurship has to be environment friendly. The reason why entrepreneurs are torch bearers of this development is because they are the one who create and invent technology which becomes the stepping stone for commercial products. So this green technology which has been developed is further presented in the market by green entrepreneurs. Green entrepreneurship and sustainability can be faster achieved when it becomes the part of educational models and Government policies to ensure enforcement and attainment of green entrepreneurship targets. India is also moving towards the concept of green entrepreneurship and has a great potential to become the global leader in achieving sustainability and green technology in future.

Keywords- Environment, climate change, green entrepreneurship, sustainability, sustainable development, Government

Introduction

Environment these days is being considered as a matter of concern for human kind and has also attracted the attention of governments, nations and businesses. Due to unwanted human intervention in natural environment and our blind chase for accumulation of wealth, our acts have severely disrupted the environment cycle and has resulted in severe imbalance in the ecosystem and biodiversity. Industrialisation in one hand is the key to growth and development but on the other hand it poses serious threats for the environment. All this has lead the world to rethink the way we live. Environment is at the pivot of sustainable development goals of the world to achieve by 2030. These 17 goals include major issues of concern like climate change, threat to life in sea and land due to human actions, all this has lead the world to rethink and redesign the ways we work and live to make the planet liveable for the coming generations.

Sustainable development or sustainability basically aims to transform the world in order to achieve health, justice and prosperity for all across the globe. This requires economic development, keeping in mind the environment concerns and focussing on preserving the environment and natural resources. So the focus now is upon development with focus on environment to not only save the human race but also the entire ecosystem, of which, we human beings are a part. It is quite evident that development in any economy is not possible without the help or participation of entrepreneurs because they are the torch bearers of growth and development of nations across the world (Schumpeter, 1934). They create and invent products and services which are the building blocks of our very existence. New generation entrepreneurs have taken upon their shoulders, the responsibility to provide to the world, eco-friendly products and services made up using sustainable and green technology so that economic development and environmental conservation may go hand in hand. (Sharma & Kushwaha, 2015). This thought is at the core of the concept of green entrepreneurship. The idea of green entrepreneurship and sustainability was very hard to adopt specially in the developing and under developed economies where even till today business models unsuitable to environment are being used. The current paper tries to explain the concept of green marketing and tries to find out whether in the current scenario green entrepreneurship is a choice or a mandate?

Objectives

1) To understand the concepts of green entrepreneurship and sustainability
2) To know about the reasons behind emergence of green entrepreneurship
3) To find out whether green entrepreneurship is a choice or mandate
4) To know about the future of green entrepreneurship in India and abroad

Concept and definition of Green Entrepreneurship

Green entrepreneurship is a combination of two words - green + entrepreneurship. Green here means products and services which are eco-friendly. The advent of the concept of green entrepreneurship or eco entrepreneurship is marked back to 1990s when some authors like Blue (1990) and Bennett(1991) started using the terms like green entrepreneur, ecopreneur and environment entrepreneur. And after that many authors like Anderson and Leal (1997), Lober (1998), Robert Isaak (2002), Cohen and Winn (2007), Kirkwood and Walton (2010), Schaper (2016), Nikolaou (2018) have used the term in their academic works. The essence of the concept of green entrepreneurship is that it a way to find solution for the environmental problems through business activities. Many authors have tried to define the concept of entrepreneurship. Venkatraman (1997) has defined green entrepreneurship as to understand how opportunities to bring into existence how "future" goods and services are discovered, created, and exploited by whom and with what consequences". Pastakia (1998) called it as an endeavour by businesses to promote their nature sustainable practices by several means.. According to Isaak (2002), green entrepreneurship is the entrepreneurship which is compatible to environment.

Green entrepreneurship or eco friendly ways of business are adopted by both, the already existing businesses, by changing their structure and processes to bring about environment friendly ways of doing business and new businesses by bringing out eco friendly products and services. There have been various examples of already existing businesses who have transformed their businesses altogether and have been successful. (Reinhardt, 1998), and studies have shown that these eco friendly transformation in business activities and processes have brought about positive economic gains for such companies (Hull and Rothenberg, 2008; Nill and Kemp, 2009). Some authors have also pointed out that adopting such measures and implementing them does not substantially increase the costs also (Hartman and Stafford, 1997). New businesses which keep environmental issues at the very core of their operations and keep all activities revolving around them are also rising in numbers. This may be due to the fact that the present economic scenario aims at business growth and social welfare at the same time, rather than keeping them in isolation (Menon and Menon, 1997).

Sustainable development or sustainability

The term sustainable development gained popularity after the year 1987 when United Nations world Commission on Environment and Development published a report in which they defined it as the one which "meets the needs of the present generation without compromising the ability of future generations to meet their own needs." (Brundtland Commission, 1987). Due to sudden and rapid climate changes, institutions of national and international repute, Governments, policy makers academicians and practitioners have started focussing on environmental and social sustainability across the globe, and due to this many different discussions have appeared over the period of time where different people and institutions have connected sustainability with concepts like managing environment, business sustainability and social responsibility (Werbach, 2009). The idea is further supported by saying that "any foreseeable sustainable state will be the result of interactions between organisations, individuals, societies and states" (Gray, 2010, p.57). Therefore sustainability or sustainable development is not possible with secluded efforts but requires integrated initiatives including environmental, social and financial dimensions.

Is Green entrepreneurship a choice or mandate?

In 1960s, environmentalists tried to persuade the businesses to be environmental friendly by creating public pressure but it was not a successful effort. In 1970s, this persuasion took a legal shape as environmentalist organisations had a sizeable impact in Governments and therefore it led to formulation of rules and regulations for businesses to protect the environment (Hays, 1987). These regulations concentrated on inputs rather than outputs, which would lead to a better environment. In 1980s, businesses were forced to incorporate environment in their decision making process. Different authors looked at this from different perspectives. Fischer and Schot (1993) and Varadarajan and Menon (1998) called it as "resistant adaptation" and "mandate corporate responsibility" respectively. All the above measures paved the way for creation of green economy. But mere Government interventions are not enough to bring about transformative changes, it is the inner desire from the entrepreneurs which persuades them to venture into green entrepreneurship. (Farinelli et al., (2011). Specially those entrepreneurs who are inclined towards social causes and are personally motivated to bring about a positive change and not merely interested in economical interest from the businesses (Allen and Marin, 2008). Government enforcements and government assistance as well as incorporation of entrepreneurship and sustainability in educational models can pave the way for more greener businesses (Lans et al., 2014).

Green Entrepreneurship trends in India and abroad

There is not much study region wise however it is widely known that developed countries have provided impetus to green entrepreneurship much before developing nations. For example, will see lots of green entrepreneurs in Europe, Japan, Korea, USA etc. as compared to India, China etc. Few studies on this aspect can be attributed to authors such as Audretsch, (2007); Erken et al., (2016); Massón-Guerra and Ortín-Ángel, (2017). Apart from the government regulations various other factors dictate the emergence of green entrepreneurs such as capital, labour, market demands, availability of technology etc. Breschi et al., (2003); Boschma and Frenken, (2006). Various researchers have pointed out that areas which are high in technology activities are the ones with the higher green entrepreneurial activity. This could be due to the reason that innovations, awareness , latest technology to cater to green entrepreneurship is easily available there as compared to other regions (Corradini, 2017)

India adopted sustainable growth in its strategy in the 12th Five year plan. It included various aspects such as waste management, sustainable agronomy, sustainable conveyance and green housing. India is trying to find a balance between growth and sustainability due to catering to basic needs of a huge populace. Government plays an important role in this. Innovations are the requirements for green entrepreneurship, this was realised by the government and soon in 2010 they declared the decade from 2010-2020 as the Decade of innovation(Abhyankar, 2014). Liberalisation which started in 1991 was the time when it was realised that innovations are basic requirements to stay ahead of others in competition. It was this need which was harnessed by Indian government and more youth were prepared for the task. India has done considerably well rising from 81st in year 2015 to 40th in 2022 in the Global innovation index (Global innovation index, 2022 WIPO). Small and Medium enterprises are the biggest contributors to inclusive growth in India and hence also the biggest potential avenues for green entrepreneurship.

Waste recycling, handicrafts, housing and construction, textile etc are the biggest realms which can contribute to green entrepreneurship. CII estimated 300 Billion dollars potential for green products by the year 2025. The rise of green entrepreneurship in India is rather fresh due the reason that attention of support organisations on Green economy is only been on rise since the previous decade. These organisations improved upon capacity buildings, innovations building, investors growth for green entrepreneurship. The major sub sectors in Green economy which have seen growth in India are renewable energy, agronomy, aquaculture, Waste management and ecotourism.

Future of Green Entrepreneurship

It has been evident that our economy has been back on track since COVID so there is a plausible formulation and adoption of green entrepreneurship. There are several organisations such as CERES which provides a roadmap for future ahead. India is on the path for transitioning to green economy. In order to achieve same various policies, regulations and initiatives are enforced which can provide a map-work, enhancement and guidance for renewable energy sector and consequently stepping stones for green economical structure. (Prajapati, A., & Mittal, S., 2022). Indian economy has got huge potential in terms of entrepreneurial activity.

As per CII data until December 2023, In pan India there are over 6,600 startups in the clean technology sector (Green Tech, Renewable Energy and Waste Management). However these start ups needs an environment where they can grow and such growth is possible only if support system is strong such as overcoming challenges, building customer base, awareness among people to use green products etc. as per UNCTAD report shift to green economy is estimated to push $4.5trillion worldwide in economic growth and provide employment to more than 7 Million people by 2030. In India alone there is a potential of $624 billion by the year 2050. Climate technology is expected to rise from USD 20.34 billion to USD 183 billion in the period 2023-2033. India hosted G20 in the year 2023 and one of the main theme of same was inclusive, sustainable and green growth.

To accomplish same as a part of awareness campaign was launched with the name “G20 startup Jagriti Yatra”. It has been hosted in Mumbai,Varanasi, Delhi, Deoria and Gandhinagar. SIDBI which is backbone of MSMS sector financing organised this journey and the objective of this yatra was to get insight into inclusive growth practices, exposure to innovative technology, global partnerships and to promote Green economy and sustainable development.

Conclusion

The entire world is facing swift climatic changes and regular occurrence of natural calamities which is a clear signal that if we human beings still did not pay attention towards immediately stopping all activities causing harm to the environment and ecology and continue to pollute the air and water, very soon the human race will cease to exist on this earth. In the blind run of development and competition we did not realise how much harm we have caused to the very environment we live into. Therefore eco friendly products, services and activities have become the need of the hour. The disruption in the season cycles, rapid melting of glaciers and increasing temperatures have caught the attention of everyone and has resulted into activation of nations, governments, NGOs and other agencies to start working in this direction and save the environment before it is too late.

One of the very important step in this direction is bringing about positive changes in the nature of goods and services we produce and consume and the way we manufacture them. Green entrepreneurship is one such concept which involves production of eco friendly and sustainable products and services using green technologies to minimise the negative impact on the environment. Green entrepreneurship and sustainability should be intensively promoted by the Governments across the globe by enforcing the businesses to practice it from the point of procuring the raw material for production to distributing it to the consumer for final use. Green entrepreneurship also needs to be promoted through education so that we will develop entrepreneurs with mindset of environment friendliness and sustainability. The field of green entrepreneurship is catching pace very fast and its future looks very promising.

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Consumer Perception and Attitude of Toilet Soap Users in Irrumbulicherry Village, Chengalpet District

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Abstract:-

The soap manufacturing industry is one of the oldest industries operating in the FMCG sector in India and accounts for more than 60% of the FMCG sector. The soap and detergent industry includes laundry and toilet soaps and synthetic detergents in liquid, powder and bar forms. Bar soaps can be divided into three sections – premium, popular and economical. Approximately more than 50% of soaps are produced and sold in rural markets. Increasing awareness of hygiene norms in rural areas is providing growth opportunity to several players. A consumer's decision and use of a particular brand all the time is influenced by the quality benefits that the brand represents, especially when it comes to the brand of edible and cosmetic products. The availability factor also plays an important role as cheap products are easily available compared to expensive ones. In the category of toilet soap, it is very difficult to assess consumer preferences. Sales promotion is largely seen in this segment. This study focuses on the preference behavior of toilet soap consumers in rural and semi-urban areas in Irummbulicherry village of Chengalpet district.

Keywords: Toilet soap, consumer preference, availability, sales promotion, marketing, strategy.

Introduction:

Consumers who were not so aware of discretionary products have started paying close attention to the features and attributes that a particular product provides. With more and more young people coming on the scene who care more about skin than other factors, they are changing the face of the industry. But more and more population is in rural area and their selection attributes are quite different. So there is a wide scope for consumer research. how consumers taste, consumer preferences, consumer preferences, etc. often change due to financial, psychological, sociological and some other factors. The present study would help the company to know the satisfaction of the respondents towards bath soap and different soap brands and how to match the potential target market with marketing mixes and then choose the best attractive strategies for execution. Companies could better create and use their marketing strategies to get more and more customers. Rural demand is growing, more and more soap brands are being launched in the discount segment targeting the lower socio-economic strata of consumers.

Literature Review:

Kumar and Babu (2014), "Significant number of brands", stated that there is a lot of switching among respondents if their favorite brands are not available in their stores, as well as the role of the retailer in influencing the brand at this stage, you have many options.

Khaled and Khonika as seen in factors affecting brand extent, their research Toilet soap users claim to be brand loyal when they use it. People are influenced by family members, toilet soaps, product characteristics, or the availability of the soap in stores in your area. Sumanta et al. (2010) found that Consumer Buying Behavior of Footwear in Kolkata: A Study According to a "Case Study", marketers should locate stores in a handy location while ensuring that they meet high quality criteria, gain notoriety through word of mouth marketing.

Objectives of the Study

1) To study consumer perception towards bath soaps.
2) To identify the product attributes that influences the purchasing process.
3) To examine the brand switching behaviour among respondents.
4) To evaluate the satisfaction level of users with respect to their present brand.
5) To offer suggestions to FMCG companies regarding their market share and brand.

Scope of the Study:

There is a wide scope for consumer research. As consumers, tastes, likes, preferences, etc. often change due to financial, psychological, sociological and some other factors. This study would help the company to know the satisfaction of the respondents towards bath soap and different soap brands. Thus, companies could better use their marketing strategies to acquire more and more customers.

Research Design: A descriptive research design is used in this study.

Field Of Study: The survey is being conducted at Irrumbulicherry in Chengalpet district. Primary data is collected through a questionnaire containing open and closed questions.

Sample Size: A sample size of 50 respondents in Irrumbulicherry village was selected for this study.

Type of Sampling: Convenience sampling and random sampling are used for this study.

Data Analysis and Interpretation

Table 1 Gender of the respondents

Gender	No. of Respondents	Percentage
Male	22	44
Female	28	56
Total	50	100

Source: Primary data

From the above table, it can be concluded that the majority of the respondents in this survey are women, i.e. 56 percent and the remaining 44 percent are men.

Table 2 Marital status of the respondents

Marital status	No. of Respondents	Percentage
Unmarried	32	64
Married	18	36
Total	50	100

Source: Primary data

The above table shows that 64 percent of the respondents are single and the remaining 36 percent belong to the married category.

Table 3 Educational qualification of the respondents

Educational qualification	No. of Respondents	Percentage
School education	8	16
Graduate	24	48
Post-Graduate	10	20
Professional	6	12
Others	2	4
Total	50	100

Source: Primary data

The table above shows that most of the respondents are graduates; followed by graduate studies with 20 percent. The third important respondent in this survey is school education.

Table 4 Age group of the respondents

Age Group	No. of Respondents	Percentage
20-30 years	20	40
31-40 years	16	32
41-50 years	5	10
50 years and above	9	18
Total	50	100

Source: Primary data

40 percent of the respondents belong to the age group of 20-30 years, where 32 percent of the respondents belong to the age group of 31-40 years, 18 percent of the respondents are in the age group of 50 years and above and the remaining 10 percent of the respondents belong to the 10 percent. The majority of respondents in this survey were students.

Table 5 Occupation of the respondents

Occupation	No. of Respondents	Percentage
Employed	10	20
Self-employed	8	16
Professional	3	6
Student	22	44
Others	7	14
Total	50	100

Source: Primary data

The student group shows a large part of the user base according to the data (44 percent), followed by the employed group with 20 percent.

Table 6 Buying Pattern of the respondents

Buying pattern	No. of Respondents	Percentage
Once in a Week	5	10
Once in a 15 days	7	14
Once in a Month	24	48
Once in 2 months	14	28
Total	50	100

Source: Primary data

48 percent of respondents who buy soap once a month, 28 percent of respondents buy soap once every 2 months in this studies.

Table 7 Brand preference of the respondents

Brands of the soap	No. of Respondents	Percentage
Santoor	5	10
Mysore Sandal	7	14
Cinthol	6	12
Pears	2	4
Lux	3	6
Dove	16	32
Hamam	4	8
Others	2	4
Total	50	100

Source: Primary data

The above table shows that 32 percent respondents prefer Dove soap followed by Mysore Sandal, Cinthol, santoor, Hamam, Pears, L:ux and so on

Other Findings:

From the above research, the researcher found that most of the respondents use Toilet Soaps only a small portion does not use Toilet Soaps. Among the various alternatives available in the market, it was observed that the respondents preferred branded goods. When buying toilet soaps of different brands in the market, the respondents preferred their reasons for buying their price and smell when buying the same ones. In the decision-making process, the majority of respondents prefer their own decisions; here they attributed the influence of others as the least important, while only a small proportion was influenced by advertising. A significant number of respondents are neutral about changing the brand of soap, and some respondents prefer not to change the brand. Most of the respondents saw the ad on TV and then on the radio. Regarding product satisfaction, most respondents are satisfied with toilet soaps, then highly satisfied and neutral sign. In terms of brand loyalty, the respondents are very loyal to their toilet soap brand and are ready to go to another store at a distance, while the respondents are also of the opinion that they can delay the purchase.

Recommendation:

1) More attractive packaging and adoption of an aggressive marketing strategy for toilet soap.
2) Gentle on the skin and maintains the moisturizing effect.
3) Frequent advertising in the mass media.
4) Smaller size of toilet soaps so passengers can become brand lovers.
5) Health value, availability, popularity and promotional offers are factors that moderate the purchase of soap.
6) Skin reliability of soap, freshness, fragrance, moisturizing effect, packaging, brand and side effects are the most important factors when buying soap.
7) A high degree of brand displacement by existing users leads to a decrease in the market share of the brand; therefore it is necessary to maintain this factor at all costs.
8) Continually reduce costs by focusing on what adds value to the customer.

Conclusion:

Regular users never felt that the brands were at a high price because none of the respondents indicated that the price for their brands was high. Protecting the skin and fragrance has the second priority when choosing a brand. Consumers then prefer softness, followed by ingredients and moisturizing effect. The study shows that consumers are more aware of the perception of the brand's product price and features at the point of purchase. Respondents attached the least importance to the advertisement of so few toilet soaps. The quality and price of the new brands motivated them to switch brands. This needs to be carefully studied by marketers. It was observed that most of the respondents were associated with a certain brand and used the same brand for quite a long time. New entrants must come up with a marketing strategy and plans to attract and influence customers of existing loyal brands. New product innovation, smart, soft and flexible merchandising and distribution will have to be key areas for the products to continue to be market leaders in the soap industry.

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Employee Turnover in the IT Industry Based On Bibliometric Analysis

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Abstract:

This study examined articles on the subject of employee attrition in the IT industry using bibliometric analysis. Two key terms that were employed in the study were "information technology" and "employee turnover". The Web of Science database provided the data. To find the domain with the most publications, the researchers looked at four performance analysis indicators, including contributions from top publishing houses, top countries, popular languages and relevant research areas universities. By setting the minimum values for each indicator in the VOSviewer software, data analysis was carried out. Scientific mapping was also carried out using a variety of indicators such most prolific authors; bibliographic coupling country-wise; journal indicators, citation analysis of the most relevant papers; co-occurrence of all keywords and cumulative publications by universities. Images of the links that were analyzed were displayed using the most popular type of network visualization. The list format of results includes 326 papers from the scholarly Web of Science database that were published between last two decades were looked at for this purpose.

Keywords: IT Industry, Employee Turnover, Employee Attrition, Information Technology, Bibliometric Analysis, WoS Web of Science.

Introduction:

The term "employee attrition" refers to the departure of workers from a firm or organization due to a variety of reasons, including retirement, illness, resignation, death, or other health issues, etc. In traditional corporate operations, employee attrition is typically expected; a high incidence of employee attrition can lead to work-related issues and a labor shortage. Employee turnover, according to Deepa & Stella (July 2012), is the ratio of a company's average total employee count to the number of workers it needs to replace within a given amount of time. The proportion of workers that quit their jobs within a specific time frame as a result of employee attrition at sometimes referred to as the turnover rate, which also takes into account workers let go during that specific period. While high employee attrition rates are tolerable, they might have a detrimental impact on a company because of the higher costs associated with onboarding new hires. Highly skilled industries typically have low churn rates, and businesses use lucrative employment contracts and other tactics to prevent certain forms of employee loss (Jaya Sharma, 2015). A more thorough qualitative understanding of the HRM literature can be obtained by employing a framework-based review or meta-analysis technique. Employers must create an understandable policy to guarantee data management security of work-related and personnel personal information. (Akther, N. et.al., 2022)

This research report centers on the following research questions about employee turnover in the IT industry:

RQ 1: Which publication houses are publishing the maximum number of research papers?
RQ 2: Which countries are publishing the maximum number of research papers?
RQ 3: In which languages, journals have published the most research?
RQ 4: In which relevant research areas have the most papers published?
RQ 5: Which authors have the greatest number of articles published?
RQ 6: Which nations have collaborated on the most publications with other nations?
RQ 7: Which journals have published the majority of papers?
RQ 8: Which cited authors are co-cited the most?
RQ 9: Which keywords co-occur with the most commonly used keywords?
RQ 10: Which universities have most cumulative publications?

Research Methodology:

Bibliometric Study: One approach for analyzing published data is bibliometric analysis. This field of study uses statistical and mathematical methods to investigate how information is distributed among publications (Valle et al., 2019). With these methods, impact indicators, mapping, and citation and co-citation analysis are carried out. Information such as citation analysis, co-citation analysis, country of origin determination, number of published journals and citations, and keyword analysis can be obtained by bibliometric analysis. The way that citation analysis operates depends on whether the writers cite sources that they find significant and use as a reference in their work. The influence these works have on the field may be reflected in the frequency of citations (Culnan, 1987). Co-citation analysis uses analytical techniques and data collected from academic databases to examine papers that cite a specific set of references (McCain, 1990). To perform these kinds of analyses, one must look for resources on a certain topic and gather pertinent information about it. According to Corrall, Kennan, and Afzal (2013) and Ikra, Rahman, Wanke, and Azad (2021) among others, the bibliometric review approach has the scientific ability to extract data on notable authors, institutions, sources, keywords, the link between these authors, and countries.

Search Strategy: Using the Web of Science (WoS) database, the researchers performed bibliometric analysis on studies published on "Employee Turnover" AND "Information Technology." The primary data source for the VOSviewer software (version 1.6.15) is the WoS. 390 articles came up from the initial search. The "All field" search criterion was used to go through the articles. Once the time period filter was applied, the total number of documents was whittled down to 326. The bibliometric analysis contained the 326 documents spanning the years 2003 through 2022. Subject categories helped to further refine the papers. The aforementioned documents pertain to the following subjects: management, computer science information science, business, economics, industrial relations, social sciences, finance, marketing, interdisciplinary applications, computer science software engineering, multidisciplinary research, business etc.

The following is a summary of performance analysis and science mapping indicators:

1. Performance analysis of four indicators, including contributions from top publishing houses, top countries, popular languages and relevant research areas universities.
2. Scientific mapping was also carried out using a variety of indicators such most prolific authors; bibliographic coupling country-wise; journal indicators, citation analysis of the most relevant papers; co-occurrence of all keywords and cumulative publications by universities.

Extraction of data: The WoS database is used to extract data. The process's next several stages are completed in that order. The first stage entails gaining access to the WoS database and following the directions for completing the first row of keywords. The IT industry was chosen as "all fields" in the second row, while employee turnover was picked as "all fields." After the period and subject area criteria were applied, 326 study results remained.

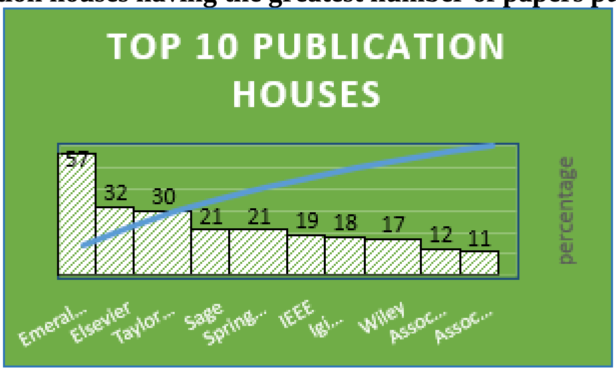
The downloaded file was in tab-delimited format. The collected WoS data was used to construct all of the performance analysis metrics. A computer program called VOSviewer was used to perform several scientific analyses.

Results:

i) Performance Analysis (Employee Turnover in the IT Industry)

1 Top Ten Publication Houses

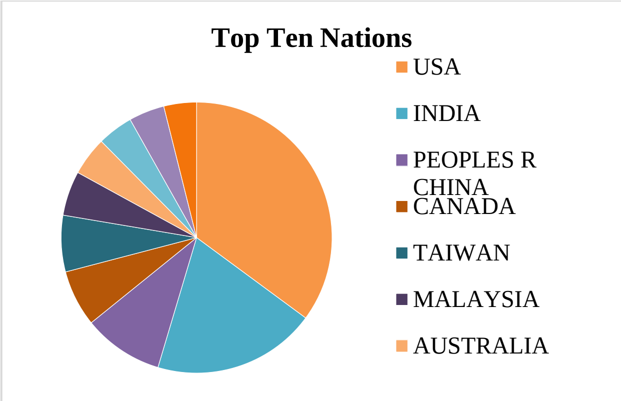
Figure 1 : Top 10 Publication houses having the greatest number of papers published.



Source: Web of Science database

Figure 1 represents the top 10 publication houses from 73 various publishers ranked by the quantity of publications. The maximum numbers papers were published were 57 and the minimum with 11 publications by the publication houses were included in this analysis.

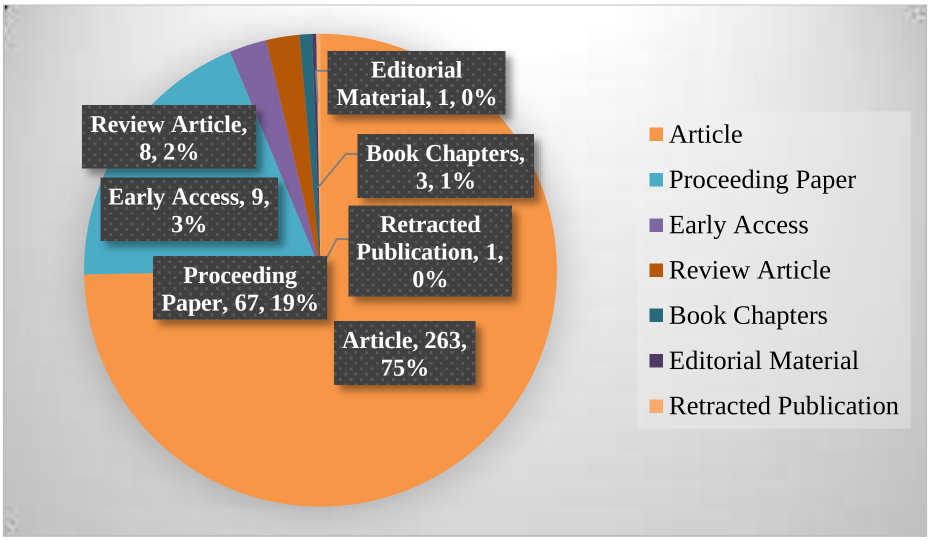
Figure2: The top ten nations with the most publications published



2. Top Ten Nations Web of Science database as a source The top ten publications from different nations that contributed their research to these studies are shown in Figure

3 Documents Types: Proceeding Paper, Early Access, Review Article, Book Chapters, Editorial Material, Retracted Publication published

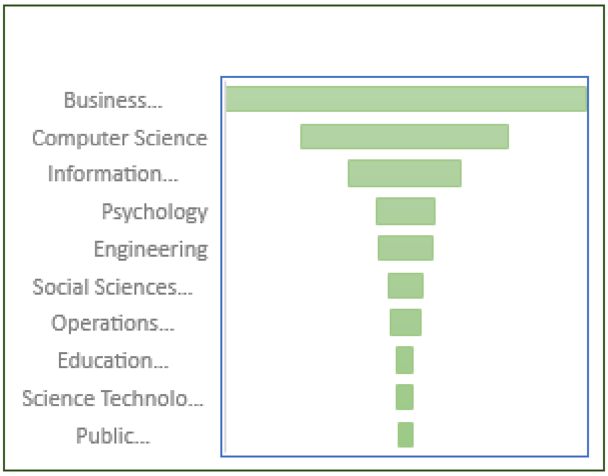
Figure 3: Types of documents



Web of Science database as a source
Figure 3 includes articles, proceeding papers, review articles, early access, and editorial material. The fact that 263 publications are in the form of articles, 67 are proceeding papers, 9 are early access, 8 are review articles, 3 are book chapters and 1 are editorial materials and retracted publications each, is very notable.

4 Research Areas

Figure 4 : Top 10 research areas having the greatest number of papers published.



Source: Web of Science database
Figure 4 represents the top 10 research areas from 24 various domains 184 publications ranked in Business Economics.

ii) Scientific Mapping

5) Bibliographic Coupling of Top Authors: Number of papers published by most prolific authors

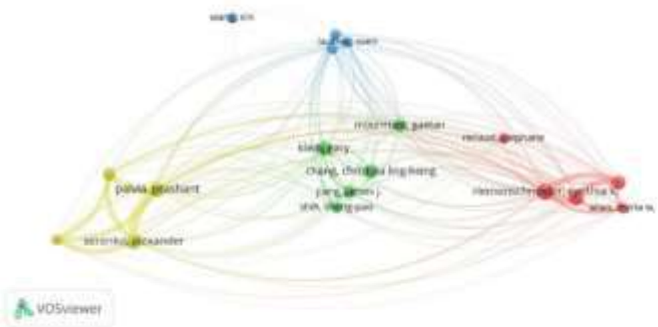
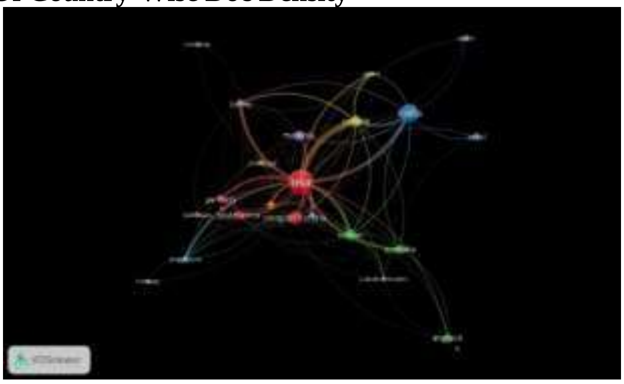


Figure 5: Maximum amount of research released by writers who publish at least three publications often. The total number of authors who contributed was 849. Authors who have authored three or more research publications are looked at in this study.

6) Bibliographic Coupling Of Country-Wise Doc Density



Web of Science database as a source

Figure 6 : Bibliographic coupling of country-wise document density. Citations country-wise Out of 60, 31 countries meet threshold. The strength of the relationships between the countries is calculated as shown above, with a minimum of three papers needed for each nation. This results in the highest overall link strength. After looking over the previously mentioned tab-delimited file, the linkages or relationships between the co-authorship of nations have been investigated. This file was taken from the Web of Science database by VOSviewer.

Table 1. Countries worked together on publications with other countries the most.

Countries	Documents	Citations	Average Citations	Total Link Strength
USA	99	3681	37.18	301
Canada	19	626	32.95	117
Australia	13	437	33.62	44
England	12	386	32.17	14
India	54	374	6.93	85
Taiwan	19	323	17	63
Turkey	10	268	26.8	56
Peoples R China	27	256	9.48	41
Germany	11	229	20.82	33
France	10	191	19.1	35

7) Bibliographic Coupling of Journal Source

Figure 7 : Bibliographic coupling of Journal sources

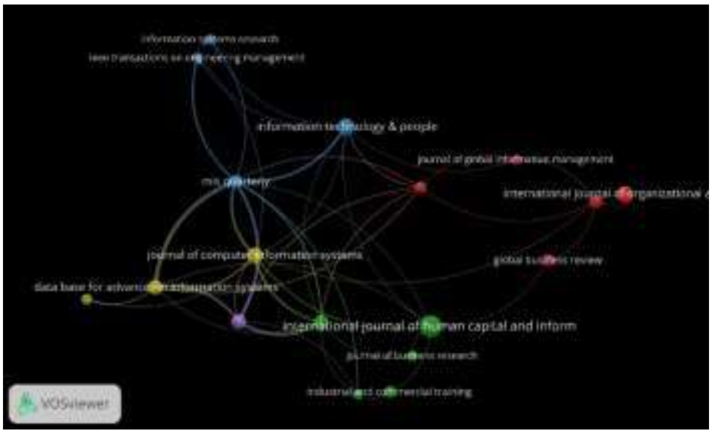
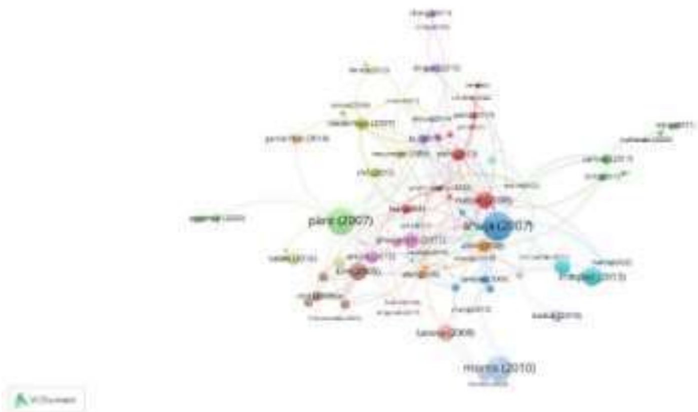


Figure 7: Network visualization of the top 10 journals out of 246 coupled bibliographically. A minimum of three documents were examined by each source during the research process.

8) Citation Analysis of The 10 Most Pertinent Papers

Figure 8 : Citation analysis of the top ten pertinent papers



A maximum number of citations of a document, out of 336, 215 meet the threshold. The study selected top 10 document citations out of 208 as indicated in network visualisation in Figure 8.

Table 2) Citation analysis of the 10 most relevant documents in the dataset ordered by the total number of citations TC

Sr.No	Author(s)	Title	Year	Journal	TC	links
1	ahuja	IT Road Warriors: Balancing Work-Family Conflict, Job Autonomy, and Work Overload to Mitigate Turnover Intentions	2007	MIS Quarterly	313	22
2	pare	The influence of high-involvement human resources practices, procedural justice, organizational commitment and citizenship behaviors on information technology, professionals, turnover intentions	2007	Group and organization management	291	16
3	morris	Job characteristics and job satisfaction; understanding the role of enterprice resource planning system implementation	2010	MIS Quarterly	249	2
4	moqbel	Organizational members use of social networking sites and job performance an exploratory study	2013	Information technology and people	142	4
5	kim	Factors affecting state govt. information technology employee turnover intentions	2005	American review of public administration	125	10
6	tanova	Using job embeddedness factors to explain voluntary turnover in four european countries	2008	International journal of Human	107	1

				Resource Management		
7	rutner	Emotional dissonance and the information technology professional	2008	MIS Quarterly	104	20
8	koch	Bridging the work/ Social divide: the emotional response to organizational social networking sites	2012	European journal of information systems	95	4
9	ghanpanchi	Antecedents to IT personnels Intentions to Leave: A Systematic Literature Review	2011	Journal of System and Software	92	13
10	Niederman	Testing and extending the unfolding model of voluntary turnover in IT professionals	2007	Human Resource Management	60	13

9) Bibliographic Coupling Of Keywords

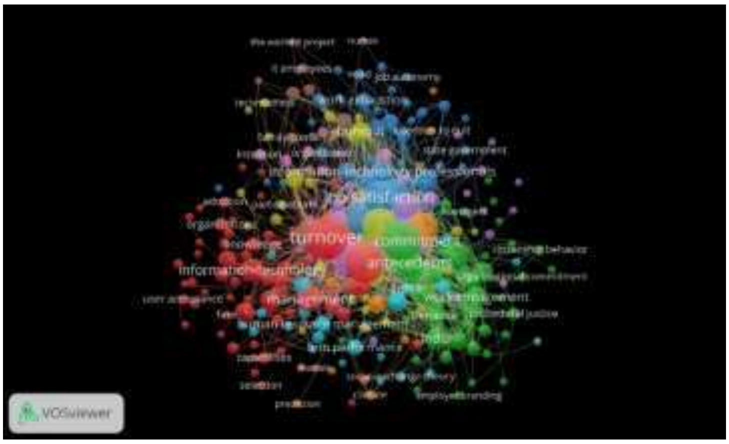


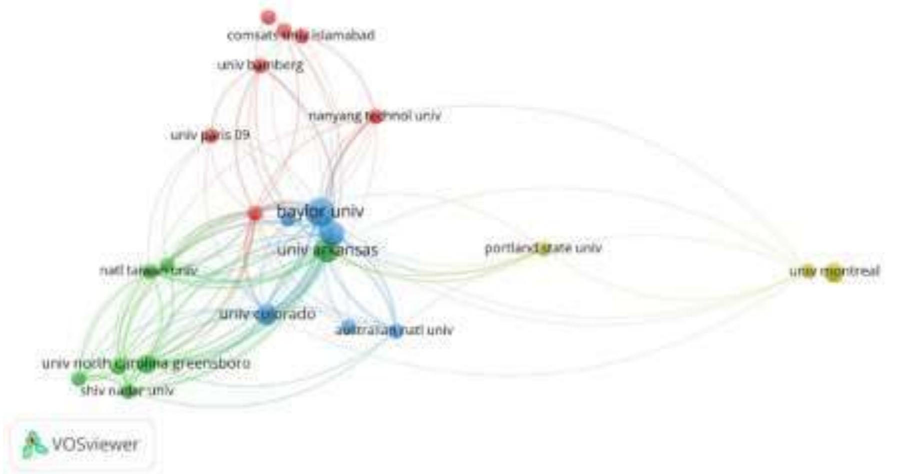
Figure 9: Network visualisation of Co-occurrence of all keywords Out of 1785 keywords, around 91 meet the requirement, together with the keywords and at least 5 cooccurrences. After looking at the previously mentioned tab-delimited file, Figure 9 explores the links or relationships between the cooccurrence of terms. The terms that are most frequently used are connected to one another, with the names of the keywords showing up in darker circles.

Table 3) Keywords co-occur with the most commonly used keywords

keyword	**occurrences**	**total link strength**	**Keyword**	**occurrences**	**total link strength**
turnover	95	696	Management	33	234
job-satisfaction	79	683	Satisfaction	33	298
performance	79	663	voluntary turnover	31	268
turnover intention	60	492	information-technology	29	214
impact	56	458	metaanalysis	29	271
employee turnover	55	438	information technology	26	168
job satisfaction	54	473	attitudes	24	241
work	54	480	consequences	23	209
model	52	436	india	23	209
organizational commitment	51	466	technology	22	157
antecedents	41	380	employees	21	189
Commitment	38	315	information-technology professionals	21	185
turnover intentions	34	313	mediating role	20	185

10) Universitywise Contribution

Figure10: Contributions from Top Universities



Source: Web of Science database

Figure 10 displays Top 47 universities have published minimum of three papers related to the subject and top universities have published 13 papers.

Conclusion:

The researchers analyzed published publications on "Employee Turnover" AND "IT Industry" based on Web of Science (WoS) database using Bibliometric analysis. The researchers used scientific mapping and performance analysis for their investigation. Data analysis was done by using the VOSviewer software to set the minimum values for each indicator. The highest number of papers published, as shown in Figure 1, were published by Emerald Group Publishing with 57, Elsevier with 32, Taylor & Francis with 30, Sage and Springer Nature with 21 apiece, and so on. This analysis includes 331 papers, the majority of which were published in English. The top ten publications from different nations that contributed their research to these studies are shown in Figure 2. It displays the top 10 articles from each of the 61 countries. The United States of America tops the world with 99 published papers; it is followed by Germany (11) and Australia (13), Australia (55), the People's Republic of China (27), Canada (19), Taiwan (19), Malaysia (15), and England (12). Figure 3 shows a list of the articles, proceeding papers, and numerous other document kinds that the Web of Science database was used to evaluate for this study. Notably, articles make up the bulk of the publications. Figure 4 represents the top 10 research areas from 24 various domains 184 publications ranked in Business Economics.

For scientific mapping figure 5 presents a compilation of 849 writers, with Riemenschneider CK being the most well-known author with seven works to his credit. The citation analysis of the top ten prolific writers is shown in Table 1, with Ahuja et al. ranking first with 313 citations and 22 links in 2007 and Pare et al. ranking second with 291 citations and 16 links in the same year. reaching a peak in 2020 and 2021 with 40 publications. According to Figure 6, which illustrates scientific mapping, the United States of America has 3681 citations, 99 different document genres, 301 links from other countries, and so forth. The top 24 nations with documents, citations, and overall link strength are displayed in Table 1. The network of bibliographic coupling for the top 10 journals is shown in Figure 7. The esteemed International Journal Of Human Capital And Information Technology Professionals, displayed in Table 2, boasts a total link strength of 1021, 13 documents, and 37 citations. Information Technology & People, which comprises 271 citations, 8 publications, and 1028 links overall. Figure 8 shows the co-citations of the network of most cited writers. With 123 citations and a total link strength of 5137, Igbaria, M. is the most often cited author among the 20 most cited writers listed in Table 3. With 95 citations and a total link strength of 4262, Joseph, D. comes in second, followed by Hair, Jf. in third place with 88 and a total link strength of 3736. In Figure 9, the co-occurrence of terms is displayed. The most frequently used keyword, turnover, appears 95 times and has a link strength of 696 in Table 3. Job satisfaction is the next keyword, with 79 occurrences and 683 total links. Employee turnover has 55 occurrences and 438 total link strength; turnover intention has 60 occurrences and 492 total link strength, and so forth. Contributions from Leading Universities: 548 global universities are shown in Figure 10. Thirteen publications have been published by the State University System of Florida, with Baylor University coming in at number eleven, University of North Carolina at ten, and the Indian Institute of Management (IIM System) at nine.

Forty-seven universities have published three or more papers on the subject.

The results were narrowed down pertinent to the research topic. The investigation was completed using Vosviewer, a scientific mapping tool intended for the depiction of networks bibliometric analysis.

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A Pragma- Stylistic Analysis Of Nadia Hashimi's 'Sparks like Stars'

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Abstract:-

This study carried out a pragma stylistics examination of linguistic features in the depute work of Nadia Hashimi Sparks Like Stars. It is to investigate and analyze the speech act and stylistic devices in some selected utterances and texts to explore the author's fertile and enriched style which highlights and stimulates the aspiration, skills, and vulnerability of writers in such literary works. Nadia Hashimi's characters portrayed through the novels produce utterances in the course of actions of the novel. Not merely words but actions and social situations will be the target to be investigated. The findings of the study showed that the interactive contextual situations between the characters are abundant in terms of assertives, commissives, expressives, directives, and declaratives. Therefore, the objectives of the study are to find out the speech acts in the novel "Sparks Like Stars" based on the Speech Act theory by Searle (1969). Stylistic Devices are meant to be investigated as well.

Keywords: stylistics, pragmatic, pragma - stylistics, assertives, commissives, investigation.

Introduction:

Language is an important component of human cognition. It serves as a vital instrument for expressing thoughts and ideas in various domains of human endeavor. The insignificance of language is minimal, as it does not function as a pivotal means of communication, disabling the expression of thoughts, emotions, ideas, and the sharing of information. Furthermore, language plays a substantial role in shaping culture, transmitting traditions, and preserving knowledge across generations. Additionally, language holds immense importance within the social, cultural, and historical contexts. The novel "Sparks Like Stars," authored by Nadia Hashimi, is a remarkable piece of historical fiction. Through this work, the author endeavors to highlight the stylistic and profound aspects of her own enriched style and wordplay. This study aims to carry out a pragmatic analysis of selected speech acts in various situations, as well as to investigate the use of stylistic devices in these selected texts. Hence Linguistic analysis is carried out; stylistics explores the linguistic features of a text; it is primarily concerned with the use of language and its effect in a text (Nneoma Udeze, 2017) as well as Pragmatic investigation for the select texts Pragmatics tells us that it is acceptable to use a language in various, unconventional ways, as long as we know, as a language user, what we are doing (Wicaksono, 2018).

The study spotlights the enriched style of Nadia Hashimi in the novel "Sparks Like Stars". In the investigation of the linguistic features in pragmatics, the examination will center on the Speech act theory advanced by J. L. Austin (1962) and refined by J. R. Searle (1969). These theories will specifically investigate five major categories within the model: assertives, commissives, expressives, directives, and declaratives. These categories aid in our comprehension of texts within the authentic context of conversations. The linguistic models of pragmatics, as well as the inquiry into stylistics, will be utilized to scrutinize the conversations and social contexts of the characters. Linguistics and literature, despite their shared involvement with language, constitute separate fields of study with distinct focuses and objectives. While linguistics aims to comprehend the structure and functionality of language as a system, literature explores the artistic and expressive facets of language as utilized in diverse forms of creative writing. Linguistic and stylistic analysis of the authentic literary text implies the analysis of the text from its inner side (Osiyanova & Kuleshova, 2020). Linguistic analysis serves as an approach for scrutinizing the linguistic elements employed in a literary text, thereby enhancing comprehension of its manner of expression, significance, and influence on readers. This mode of analysis proves particularly invaluable in the exploration of literary genres, encompassing poetry, drama, fiction, and prose. The examination of narrative perspective within literary works represents a genuine confluence between the realms of linguistics and literary studies. By focusing on the formal linguistic properties of literary texts (Ehrlich, 2014). Another crucial aspect of linguistic examination involves recognizing and examining stylistic elements. These are the techniques employed by writers to convey meaning beyond the surface level of the text. Stylistic devices encompass various tools such as simile, metaphor, alliteration, and personification. By analyzing how these devices are employed in a text, scholars can uncover the author's intentions and assess the emotional resonance of the piece. Additionally, the study of syntax and grammar constitutes another significant component of linguistic analysis. These principles dictate the structure and organization of words to construct coherent sentences. In literary forms, authors often use unconventional or experimental syntax to create a unique style or tone. (Niazi & Gautam, 2010) look at literature from a stylistic and pragmatic perspective. Hence, a pragma-stylistic study for her novel “Sparks Like Stars” is carried out. It is a combination of stylistics and pragmatic analysis. Pragmatic analysis involves the speech act theory suggested by Searle. The term speech act does not refer simply to the act of speaking but to the whole communicative situation, including the context of the utterance (that is, the situation in which the discourse occurs, the participants, and any preceding verbal or physical interaction) and paralinguistic features which may contribute to the meaning of the interaction (Black, 2005).

Nadia Hashimi was born and brought up in America where her parents settled in the early 1970s. Her family tradition, her visits to Afghanistan, and her influence as a journalist have helped her to collect materials for her novels. Hashimi depicted the reality and the situation of women in Afghanistan. Though she was notarised in the homeland of her parents (Afghanistan) since Hashimi was born and raised in America, she is still aware of many of the cultural expectations, values, and the notion of a reputation for a girl in her Afghan community (Better Reading). Some of her novels are The Pearl That Broke its Shell (2014) When the Moon is Low (2015), One Half from the East (2016), A House Without Windows (2016), and The Sky at Our Feet (2018). She portrays in her works the hope of the migrants, the specific cultural practices of the Afghans, and the ongoing sufferings of the Afghan women.

Her novel “Sparks Like Stars” is a historical fiction novel set in Afghanistan, published in 2021, spanning decades from the 1970s to the early 2000s. The story follows Sitara Zamani, who survives a coup that kills her entire family, including her father, a prominent doctor. She escapes to America where she becomes a successful surgeon. However, she's haunted by the memories of her past and returns to Afghanistan to uncover the truth about her family's fate. It's a gripping tale of resilience, identity, and the search for justice in the face of tragedy and political upheaval. Hashmi's thought-provoking literary work, "Sparks Like Stars," delves into the heart of Kabul, Afghanistan, commencing in the year 1978.

The novel's protagonist, Sitara Zamani, has borne witness to the brutal massacre of her family and sought refuge alongside her concealed fortunes. With the invaluable assistance of Shair, a guardian, she successfully escapes, thus enabling her to embark on a new chapter in her life. Subsequently, Sitara is guided to her new abode under the care of Antonia Shepherd, an American ambassador, who graciously adopts her and nurtures her in the United States. In her adopted homeland, Sitara adopts the name of her deceased sister, Aryana Shepherd, and dedicates herself to her scholarly pursuits, eventually attaining esteemed recognition as an oncological surgeon in the bustling metropolis of New York. The narrative then propels us forward to the year 2008, when an unexpected visitor—a former patient—materializes in Aryana's examination room. This encounter transpires exactly three decades after that fateful night in Kabul, shattering Aryana's world once again. The presence of Shair, the military personnel who safeguarded her life but may also bear responsibility for the demise of her entire family, stirs up a whirlwind of emotions within Aryana and potentially awakens a desire for retribution. Sitara, the central character of this novel, a woman from Afghanistan who eventually relocated to New York and gained recognition as a distinguished medical professional, offers another viewpoint to the narrative when analyzed within the context of an autobiographical in nature.

Objectives of the Study:

The study is primarily meant to identify and analyze the various speech acts in the selected utterances from the novel Sparks Like Stars by Nadia Hashimi. Is an attempt to demonstrate how the identified features and style of the author show the abundance of expressions and language empowerment using Speech Acts theory as the framework. Hence, the analysis is meant in general terms to show how the language of the texts is organized in social interactions and situations and real context as well. The study is based on answering such questions; What are the speech act types that are exhibited in the selected utterances and texts? Are the identified speech acts significant for meaning in social situations.

Theoretical Framework:

The investigation into the pragmatic aspects related to the analysis and interpretation of literary texts serves as the foundation for the Pragma-Stylistic approach in linguistics, which is employed in this particular study. This approach places significant emphasis on the intended meaning of the speaker as well as their distinctive style. As outlined by (Leech, 1983)), the examination of meaning in language revolves around the utilization of utterances and their connection to the specific context in which they are employed. In the case of the selected texts from Nadia Hashimi's novel "Sparks Like Stars," the Pragma-Stylistic approach aims to scrutinize the significance of the texts and the manner of writing by employing the linguistic framework of Speech Acts theory. Speech act theory also referred to as the "How to do Things with Words Theory," as elucidated by (Ayeomoni, 2005), concentrates on how speakers and listeners comprehend each other despite the potential for miscommunication. Austin (1962) classified the speech act theory into three categories of acts: locutionary, illocutionary, and perlocutionary acts.

In this study, the investigation of the speech act is based on (Searle & Vanderveken, 1985) categorizations. John Searle, a prominent philosopher of language, introduced a taxonomy of speech acts in his influential work "Speech Acts: An Essay in the Philosophy of Language" (1969). In this seminal book, Searle proposed that utterances can be classified into different categories based on their illocutionary force, which is the speaker's intention in making the utterance. Searle categorizes speech acts into five main types: Assertives, Directives, Commissives, Expressives, and Declarations. Assertives convey propositions, directives aim to get the listener to do something, commissives commit the speaker to future action, and expressives convey the speaker's psychological state or attitude, sa for the novel mostly expresses the psychological state of Sitara; the protagonist. Hashimi has explained through various literary styles how young people suffer terrible experiences, how their identities are affected, and how they grow and conquer their concerns over time at a price (Muzaffar Qadir Bhatti, 2024). Another speech act discussed in the study is declarations. It brings about changes in the external world merely by being spoken. This framework has had a significant impact on linguistics, philosophy of language, and communication studies, providing insights into how language goes beyond conveying information.

Data and Methodology

The current study focuses on the utilization of descriptive qualitative research methodology. Qualitative research is employed to gain an understanding of the phenomena observed in society. It involves the analysis and interpretation of language data to encompass underlying meaning. The primary data source utilized in this study is contexts and social situations from the novel “Sparks Like Stars”. it consists of utterances that encompass the five categories of Searle Speech Act theory, namely assertives, commissives, expressives, directives, and declaratives. Utterances are selected randomly to investigate the enriched linguistic style of the author. The Speech Act Theory, a branch of linguistic pragmatics, examines how individuals utilize language to perform various actions. Developed by philosopher J.L. Austin and later expanded upon by John Searle, this theory investigates how utterances can possess both a propositional meaning (the literal meaning of the words) and an illocutionary force (the intended action or effect of the utterance). Speech act, a component of pragmatics, delves into the study of utterances as actions performed through speech. This study selects some speech situations from the novel Nadia Hashimi using purposive random sampling. The utilized paradigm provides guidelines and a new framework for data analysis for researchers who wish to employ linguistic textual analysis in their future research. The study aims to conduct a linguistic analysis of a literary text, specifically focusing on the process of creation by the author. This will be achieved by identifying the distinct and stylistic patterns through linguistic stylistic and pragmatic approaches. Linguistic Textual Analysis refers to the scientific analysis of language, symbols, or pictures present in texts to gain insight into life experiences and social situations. The analysis of stylistic devices will be carried out to investigate the expressions within the selected extracts. According to (Crystal, 1999), stylistics is the study of the distinctive use of language in various situational contexts and the choices made by individuals and social groups across all linguistic domains. Stylistics examines the linguistic features of texts concerning their meaning. It is considered as the scientific study of the style present in all forms of spoken and written texts.

Result and Discussion

This investigation revealed the abundance and multiplicity of the speech acts and their functions in the speech situations and contexts of the novel. The study extracts only a sample of five utterances; purposive random sampling, from the targeted novel ‘Sparks Like Stars’ as a sampling using a pragmatic stylistic approach as a tool of analysis. The study utilized (Mey, 2013) pragmatic acts with the existing stylistic devices in the texts. According to Searle's theory, sentences are assigned and assumed as functions, known as speech acts (Serdeña, 2022). Consequently, each sentence is allocated to one of the five classifications: directives, commissives, representatives or assertives, declaratives or performatives, and expressive. The examination of the aforementioned speech act classifications is certainly worthwhile when analyzing the chosen utterances in "Sparks Like Stars".

Analysis of Assertives Speech Act

"Al-jabr" means the reunion of broken parts, Boba had taught me. It was a term first used for broken bones, then later to describe a mathematical equation.” Chap. No. 33/ p.no.230

Speech Act and Stylistic devices:
The speech act type in the provided text is "assertive," as it conveys information about the meaning of the term "al-jabr" and its evolution from its original usage for broken bones to its mathematical meaning. The text includes the following stylistic devices:

1. Metaphor: "Al-jabr" is metaphorically described as the "reunion of broken parts," suggesting a connection between mathematical equations and the mending of broken objects.
2. Personification: The attribution of teaching to "Boba" personifies the act of imparting knowledge, adding a human quality to the learning experience.
3. Parallelism: The structure of the sentence "It was a term first used for broken bones, then later to describe a mathematical equation" exhibits parallelism, enhancing clarity and rhythm in the expression of ideas.

Analysis of Commissives Speech Act
"I want to do a piece highlighting the impact of war on kids," Chap. No. 59/ p. no. 428

Speech Act and Stylistic devices:
The speech act type in this sentence is commissive. The speaker is committing himself to future action, indicating their intention to "do a piece highlighting the impact of war on kids."
The text also conveys two kinds of stylistic devices. "I want to do a piece highlighting the impact of war on kids," primarily employs parallelism, emphasizing the intention to focus on the impact of war on children. Additionally, it contains a metaphorical expression, "highlighting the impact," which conveys the idea of shedding light on the effects of war.

Analysis of Expressive Speech Act
"At the sound of approaching footsteps, I froze. I held my breath and listened. I heard what sounded like a door close at the far end of the hall. When I was sure footsteps were not approaching, I put one foot in front of the other, stepping with my heel first. I'd not moved three steps when I paused again".
Chap. No. 2/ p. no19

Speech Act and Stylistic devices:
The speech act type found in the text is primarily "Expressive" as it describes the speaker's inner thoughts, feelings, and reactions to the situation. On the other side, the text employs several stylistic devices, including:

1. Imagery: Descriptive language is used to evoke sensory experiences, such as the sound of approaching footsteps and the closing of a door.
2. Repetition: The repetition of actions ("I froze," "I paused again") emphasizes the tension and cautious movement of the speaker.
3. Parallelism: The structure of the sentences follows a parallel pattern, with each sentence beginning with a similar subject-verb construction ("I froze," "I held," "I heard," "I put," "I'd not moved").

Analysis of Directive Speech Act
"YOU CAN RETURN TO THE LIBRARY TOMORROW." MY MOTHER offered. "But this is an important night, and I need your help. Faheem's been terrified of sleeping alone lately. You don't want him to wake up and find himself alone, do you?". Chap. No. 1/P.no. 11

Speech Act and Stylistic devices:
The speech act type by Searle found in the text is "Directive," as the mother is making a request or giving a directive to the listener. Stylistic devices in the text include:

1. Direct speech: The dialogue between characters is presented directly, enhancing the immediacy and realism of the conversation.
2. Politeness marker: The use of "my mother offered" signals the polite manner in which the directive is delivered.
3. Repetition: The repetition of the word "alone" emphasizes the mother's concern and reinforces the importance of the situation.
4. Rhetorical question: The mother uses a rhetorical question ("...alone, do you?") to imply a shared understanding or agreement and to persuade the listener.

Analysis of Declarative Speech Act
"Sham. Shair. These two names said together became a new conjoined word, sham-shair, which meant sword. Feeling like I'd been sliced apart, this new name made more sense than anything I'd endured in the last days".
Chap. No. 8 / p. no. 65

Speech Act and Stylistic devices:
The speech act type by Searle found in the text is "Declarative" It is naming as the protagonist creates a new word ("sham-shair") to represent the concept of "sword."
Stylistic devices found in the text include:

1. Alliteration: The repetition of consonant sounds in close proximity ("Sham. Shair.") creates a sense of rhythm and emphasis.
2. Metaphor: The comparison of the protagonist's feeling to being "sliced apart" uses metaphor to convey the intensity of their emotion.
3. Hyperbole: The statement "Feeling like I'd been sliced apart" exaggerates the protagonist's emotional state for emphasis.
4. Imagery: The use of descriptive language evokes sensory experiences, such as the imagery of being "sliced apart," which helps the reader visualize and empathize with the protagonist's emotions.

Conclusion:
Through the analyzed speech acts in "Sparks Like Stars", the writer makes use of pragmatic acts with various functions and sub-functions in the speech situations and context in combination with the stylistic devices of each utterance to attract the

readers for further reading and investigations of the texts. The objective of the present study was to explore those speech acts to provide a sampling of the pragma stylistics examinations of the literary texts. Searle's Speech Act Theory is fulfilled in the context of the novel. Based on the analysis above, the speech acts occurrences in the selected utterances are; assertive, commissive, expressive, directive, and declarative with their linguistic functions and sub-functions explored. Consequently, conveying information, expressing commitment, conveying the speaker's psychological state, expressing feelings and beliefs, giving commands or promoting the hearer to take a specific action, and naming or accepting an action or statement are the functions of the speech acts elicited from the selected utterances. Besides the stylistic devices elicited from the same texts. The present study was devoted to the analysis of those speech acts situations to find them fruitful in the novel. The study revealed the writer's abundant linguistic style. It is noted that the sentences in the novel are deeply connected. In some utterances and extracts, more than one speech act type is recorded. This is recommended to be investigated more comprehensively and broadly in further studies. The linguistic approach, pragma stylistics, plays a crucial role in connecting literary and linguistic analyses of any literary text.

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Applications of Knowledge Management in Modern Libraries: A Strategic Approach to Information Organization and User-Centric Services

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Abstract:-

In the contemporary era of rapid technological advancements and evolving information landscapes, libraries face the challenge of adapting to meet the diverse needs of their patrons. This abstract explores the multifaceted applications of knowledge management (KM) in libraries, emphasizing its strategic role in enhancing information organization, promoting collaboration, and adopting a user-centric approach. The first aspect examined is the systematic organization of information within libraries. Through efficient cataloguing, classification, and adherence to metadata standards, libraries ensure that their vast collections are not only preserved but also readily accessible. The implementation of digital repositories and archives further extends the reach of library resources, contributing to the creation of institutional repositories that facilitate the dissemination of scholarly works in electronic formats. Technology integration, as another crucial application of knowledge management, enables libraries to streamline operations. Library Management Systems (LMS) and Radio-frequency identification (RFID) technologies automate routine tasks, improving efficiency and enabling libraries to adapt to the changing landscape of information management. Collaboration and networking emerge as vital components of knowledge management in libraries. The establishment of interlibrary loan services promotes resource sharing among libraries, expanding the scope of accessible materials. Active participation in professional networks allows librarians to exchange best practices and stay informed about emerging trends, fostering a collaborative environment. A user-centric approach, grounded in knowledge management principles, ensures that libraries remain dynamic and responsive to the needs of their communities. Seeking and incorporating user feedback, tailoring services to specific user groups, and engaging in continuous learning through professional development are integral components of this approach.

Keywords: Knowledge Management, Libraries, LMS, user-centric approach, RFID

Introduction:

In the ever-evolving landscape of information and technology, libraries play a pivotal role as custodians of knowledge. The effective management of this knowledge is crucial for libraries to meet the diverse needs of their patrons, enhance services, and adapt to the dynamic nature of information. Knowledge management (KM) in libraries involves a systematic and strategic approach to organizing, creating, sharing, and leveraging information resources. This proactive management not only ensures the preservation and accessibility of valuable content but also empowers libraries to become dynamic hubs of learning and innovation.

Key Applications of Knowledge Management in Libraries:

1. **Information Organization and Retrieval:** Knowledge management in libraries begins with the systematic organization of information. Through efficient cataloguing, classification, and adherence to metadata standards, libraries ensure that their vast collections are easily searchable and accessible to users. This enhances the overall user experience and promotes effective knowledge retrieval.
2. **Digital Repositories and Archives:** The digitization of collections and the establishment of digital repositories enable libraries to preserve and share resources in electronic formats. Institutional repositories serve as valuable platforms for storing, disseminating, and showcasing scholarly works, contributing to the broader dissemination of knowledge.
3. **Technology Integration:** Libraries leverage technology through Library Management Systems (LMS) and Radio-frequency identification (RFID) to automate routine tasks, improving operational efficiency. The integration of technology not only streamlines processes such as acquisitions and circulation but also allows libraries to adapt to the changing landscape of information management.

4. **Collaboration and Networking:** Knowledge management fosters collaboration within and between libraries. Interlibrary loan services enable patrons to access resources beyond the confines of a single library, promoting a collaborative approach to information sharing. Participation in professional networks allows librarians to exchange best practices and stay abreast of emerging trends.
5. **User-Centric Approach**: The heart of any library's mission is to serve its users. Knowledge management enables libraries to adopt a user-centric approach by actively seeking and incorporating user feedback. Tailoring services to meet the specific needs of diverse user groups ensures that libraries remain relevant and responsive to the evolving requirements of their communities.
6. **Continuous Learning and Adaptation:** Libraries, as dynamic entities, recognize the importance of continuous learning. Librarians engage in professional development to stay informed about emerging technologies and evolving practices. This commitment to ongoing education ensures that libraries remain adaptable and forward-thinking in their approach to knowledge management.

In the context of knowledge management (KM), a user-centric approach involves aligning knowledge management practices with the needs, preferences, and behaviors of the users within an organization or community. This approach recognizes that the success of knowledge management initiatives depends on the active participation and engagement of users. Here are key aspects of a user-centric approach in knowledge management:

1. **User-Centric Services:**

1. **User Involvement in Knowledge Creation:**

Encouraging users to actively contribute to the creation of knowledge by sharing their expertise, experiences, and insights. Providing platforms and tools for users to document and share tacit knowledge, turning individual experiences into valuable organizational knowledge.

2. **Tailored Knowledge Access and Retrieval:**

Designing knowledge repositories and systems with user-friendly interfaces that facilitate easy access to relevant information. Implementing personalized knowledge retrieval mechanisms, such as customized dashboards or recommendation systems, to deliver content based on user preferences and needs.

3. **User Feedback and Collaboration:**

Soliciting feedback from users regarding the usability and effectiveness of knowledge management systems.

Facilitating collaborative spaces where users can discuss, share feedback, and collectively contribute to the improvement of knowledge resources.

4. **Training and Information Literacy:**

Providing training programs and resources to enhance users' information literacy skills, ensuring they can effectively navigate and utilize knowledge management platforms. Offering support and guidance to users in understanding the value of knowledge management and how it aligns with organizational goals.

5. **Contextual Knowledge Integration:**

Integrating knowledge management into users' daily workflows and processes, ensuring that accessing and contributing to knowledge is seamlessly woven into their work routines. Embedding knowledge resources within the context of specific projects or tasks, making relevant information readily available at the point of need.

6. **Responsive Knowledge Development:**

Adapting knowledge management strategies based on user feedback, changing organizational needs, and evolving industry trends. Regularly assessing the relevance of existing knowledge assets and updating them to meet the current and future requirements of users.

7. **Collaborative Knowledge Creation**:

Encouraging collaborative knowledge creation through teamwork, group discussions, and shared documentation. Fostering a culture of knowledge sharing, where users recognize the value of contributing their expertise for the benefit of the entire organization.

8. **Community Building:**

Building a community around knowledge management, where users feel connected and motivated to actively participate in sharing and utilizing knowledge. Recognizing and celebrating the contributions of users to foster a sense of ownership and pride in the knowledge management process. By placing users at the centre of knowledge management initiatives, organizations can create a culture of active participation, collaboration, and continuous learning, ultimately enhancing the effectiveness and impact of knowledge management practices.

2. **Future Aspects of User-*Centric Services:***

The future of user-centric services is likely to be shaped by technological advancements, changing user behaviours, and evolving societal trends. Here are several key aspects that may define the future landscape of user-centric services:

1. **Personalization through Artificial Intelligence (AI):** AI and machine learning algorithms will play a significant role in providing more sophisticated and personalized user experiences. Advanced recommendation systems and predictive analytics will anticipate user needs and preferences, delivering tailored content and services.
2. **Voice and Natural Language Interfaces:** The rise of voice-enabled devices and natural

language processing will lead to more intuitive and conversational interactions between users and services. Voice-activated assistants and chatbots will become increasingly sophisticated, offering seamless and personalized assistance.

3. **Augmented and Virtual Reality (AR/VR):** AR and VR technologies will enhance user experiences by providing immersive and interactive interfaces. Applications in areas such as virtual shopping, virtual tours, and augmented reality assistance will become more prevalent.
4. **Block chain for Security and Trust:** Block chain technology may be adopted to enhance security, privacy, and trust in user-centric services. Decentralized identity management and secure transactions could be facilitated through block chain, giving users greater control over their data.
5. **Quantum Computing Impact:** As quantum computing matures, it may influence the speed and efficiency of processing data, potentially enabling more complex and dynamic user-centric services. Quantum computing could have implications for data security and cryptography, ensuring robust protection of user information.
6. **5G Connectivity:** The widespread adoption of 5G networks will provide faster and more reliable connectivity, enabling real-time interactions and data transfers. Enhanced mobile experiences, augmented reality applications, and seamless IoT (Internet of Things) integrations will become more prevalent.

Conclusion:

The application of knowledge management in libraries goes beyond the mere organization of information; it transforms libraries into agile institutions that embrace technology, prioritize user needs, and actively contribute to the dissemination and creation of knowledge in the digital age. As libraries navigate the complexities of the information landscape, effective knowledge management stands as a cornerstone for their continued relevance and impact. The future of user-centric services, therefore, lies in the ability of service providers to embrace these technological shifts while staying attuned to user needs and expectations. By fostering a culture of continuous improvement, prioritizing ethical considerations, and staying agile in response to emerging trends, organizations can position themselves to deliver services that not only meet but exceed the evolving demands of an increasingly digital and interconnected world. In essence, the future of user-centric services holds the promise of more personalized, accessible, and secure digital experiences for individuals and communities worldwide.

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Convolutional Neural Network Based Heart Stroke Detection

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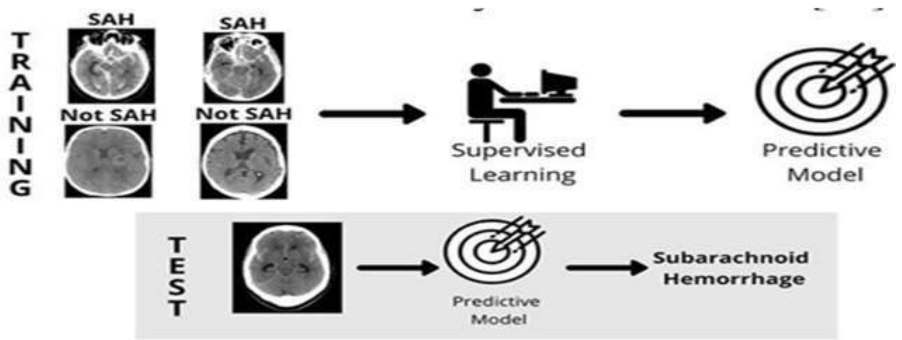
Abstract:-

Stroke has no proven cure and is a leading cause of death and long-term disability worldwide. Deep learning-based methods may outperform current models in predicting stroke risk, but require large amounts of properly labeled data. Due to strict privacy policies in health systems, stroke data is typically distributed in small chunks across multiple institutions. The World Health Organization (WHO) claims that stroke is the leading cause of death and disability worldwide. Early detection of various stroke warning indicators can reduce the severity of stroke. Several machine learning (ML) and deep learning (DL) models have been implemented to predict stroke probability. The study uses several physiological markers, machine learning, and deep learning techniques. Hybrid deep transfer learning, super vector machine (SVM), decision tree (DT) classification, random forest (RF) classification, CNN+LSTM, voting classifiers, and more. In order to train the above model and make accurate predictions. The algorithm with the highest accuracy rate for this task was CNN+LSTM. An open-access stroke prediction dataset was used to develop the method. The accuracy percentages of the models used in this study were significantly higher than previous studies, indicating a high degree of confidence in these models. Its robustness has been demonstrated by comparing multiple models, and the scheme can be derived from research analysis.

Keywords – stroke risk detection, convolutional neural network, long-short time memory, machine learning, voting classifier.

Introduction:

Stroke is one of the most common illnesses that can cause death and long-term disability in older adults around the world. A recent study found that an estimated 795,000 people in the United States suffer a new or recurrent stroke each year, and a stroke occurs every 40 seconds during a lifetime [1]. One of her five stroke patients died within her first year [2]. The cost of care and rehabilitation for survivors places a huge burden on their families and the health care system, with direct and indirect costs from stroke cases estimated at $45.5 billion between 2014 and 2015. reached. Quoted in US dollars [3]. Accurate stroke prediction is therefore of great importance to delay the onset of stroke and reduce the cost of early treatment to minimize risks. The Stroke Risk Prediction Model (SRP) was developed using medical data from multiple studies, including electronic health records and retinal scans. Deep learning-based approaches [6]–[11] and traditional machine learning techniques such as support vector machines (SVMs), decision trees, and logistic regression [4], [5] can be broadly categorized. Deep neural networks (DNNs) have been shown to be good at predicting stroke [8]. However, a known drawback of such models is that they rely on the availability of large amounts of accurately classified data. The required amount of reliable information may not be readily available in real life [12]. Strict data protection regulations in the healthcare system make it difficult to share stroke data between healthcare institutions. As a result, different institutions often share individual parts of their entire stroke data collection. The frequency of positive and negative strokes is also very different. As a result, the actual implementation of his SRP model based on DNN may not work [13].



1. **Training and Testing data:**

Despite the lack of data on stroke, clinical studies show a strong association between stroke risk and several common chronic diseases such as diabetes and hypertension . 14], [15]. The long-term relationships and patterns found in the continuous data were very well captured by the CNN+LSTM model. As stroke risk variables change over time, the model's ability to detect these long-term patterns greatly contributed to more accurate risk prediction. His model-based CNN+LSTM experiments for heart rate risk prediction showed promising results and provided insightful information for the future development of medical AI applications. In the medical field, the ability of models to combine imaging and time-series data to provide accurate risk assessments will greatly improve stroke prevention and patient care.

Literature Review:

Heart disease and stroke statistics—2017 update a report from the American Heart Association:

The American Heart Association (AHA) provides the latest statistics on the AHA's Life's Simple 7 (Figure 1), which includes health factors for heart disease, stroke, and basic health behaviors (smoking, physical activity [PA], diet, and weight). are compiled every year. (cholesterol, blood pressure). This will be done in collaboration with the Centers for Disease Control and Prevention, the National Institutes of Health, and other government agencies. For the latest information on these causes and diseases, The Statistical Update is an essential resource for the public, politicians, media professionals, physicians, health officials, researchers, health advocates, and everyone else. Cardiovascular disease (CVD) and stroke have significant negative health and economic impacts in the United States and around the world. This update includes many important clinical heart diseases, including stroke, congenital heart disease, arrhythmia, subclinical atherosclerosis, coronary artery disease, heart failure (HF), valvular and venous disease, and peripheral vascular disease. It also includes the latest information on vascular diseases and their effects. Arterial disease (PAD), cost, quality of treatment, and economic impact of these diseases and outcomes. Since 2006, Statistical Update's annual reports have been cited more than 20,000 times in the literature. In 2015, various statistical updates were discussed over 4,000 times.

An integrated machine learning approach to stroke prediction:

Stroke is the leading cause of severe long-term disability and the third leading cause of death in the United States. Accurately predicting stroke is critical for early intervention and treatment. Comparing Cox proportional hazards models and machine learning techniques for stroke prediction using the Cardiovascular Health Study (CHS) dataset. We focus on typical problems of feature selection, data completion, and prediction in medical datasets. We provide a new automated method for selecting features based on recommended heuristics and conservative averages. Our proposed feature selection method outperforms Cox proportional hazards model and L1 regularized Cox feature selection approach in terms of area under the ROC curve combined with support vector machine (SVM). As an alternative to the Cox model, we also provide a margin-based truncated regression method that combines the idea of a margin-based classifier with truncated regression. Overall, our technique's AUC and concordance index measurements both outperform the current state-of-the-art. Additionally, our study also identified potential risk factors that were not discovered using traditional approaches. Our method can be used to predict clinical outcomes in a variety of diseases, where data are often missing or risk variables are unknown..

Using machine learning to improve the prediction of functional outcome in ischemic stroke patients:

Ischemic stroke is a leading cause of human disability and death worldwide. A patient's prognosis after a stroke is greatly influenced by therapeutic decisions made by physicians during the acute phase. ASTRAL, DRAGON, and THRIVE scores have all become available as tools to help physicians assess the functional prognosis of patients after stroke in the past 5 years. These rule-based classifiers utilize information available at the time a patient is admitted to the emergency department. This study addresses the problem of using machine learning algorithms to predict

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functional outcome in ischemic stroke patients 3 months after hospitalization. A pure machine learning method using a function specified on admission was found to only slightly exceed the highest ROC area under the curve (AUC) ($0.808 to $0.085 PM) ($0.771 to $0.056). show. However, we find that the AUC can be significantly increased beyond 0.90 by gradually adding attributes that become available at a later date. We conclude that our results support the use of admissions scoring, but in practice also highlight the need to use other variables and, if possible, more sophisticated methods. Masu. is required.

EMR-based phenotyping of ischemic stroke using supervised machine learning and text mining techniques:

Ischemic stroke is the most common cause of death and disability in adults worldwide. Because the morphology of ischemic stroke is very diverse, phenotypic analysis is of great importance for medical research and clinical prognosis. However, this task is difficult when the study population is large. Most human annotations on medical data have been used in previous ischemic stroke phenotyping studies. This study considers multiple approaches to automate ischemic stroke phenotypes into the four subtypes of the Oxfordshire Regional Stroke Project Classification (EMR) based on structured and unstructured electronic medical record data. To do. will be considered. A total of 4,640 adult patients admitted to a teaching hospital for acute ischemic stroke participated in this study. In addition to the structured components of the National Institutes of Health Stroke Scale, unstructured clinical narratives were preprocessed using meta maps to discover medical concepts and encode them into feature vectors. A number of supervised machine learning techniques were used to generate the classifier. The results of this study suggest that the combination of text and structured data from EMR may be useful for phenotyping of ischemic stroke. Furthermore, performance is improved by splitting this multiclass problem into binary classification tasks and aggregating the classification results.

Feature isolation for hypothesis testing in retinal imaging: prediction case study:

Schematic Stroke is a significant and unpredictable cause of death and disability. Retinal fundus photography is non-invasive and recommended for assessing stroke risk due to the similarities between the retinal and brain microcirculation. Previous studies have shown a relationship between vein caliber and stroke risk. However, other retinal features may be more appropriate. This article presents a comprehensive deep learning study on six retinal datasets. The effectiveness of vessel diameter and shape alone in stroke classification was evaluated using segmented vessel tree images for feature separation using dataset ablation and generalization of the model to unidentified sources. . is checked. This result suggests that source-specific characteristics may influence model performance and that vessel width and shape may be markers of ischemic stroke. When it comes to stroke prediction, hybrid deep transfer learning frameworks may perform poorly. The fact that such models rely on the availability of large, well-characterized data is a well-known drawback. In real-world scenarios, the required amount of reliable data may not be easily accessible. Collaboration with medical professionals and adherence to privacy and ethical standards are essential throughout the development process. Strict privacy policies in health systems typically make it difficult to share stroke data between hospitals. As a result, small subsets of total stroke data collection are often spread across multiple institutions. Additionally, extreme positive and negative imbalances can occur in the stroke data. Therefore, hybrid deep transfer learning frameworks may not perform well when deployed in the real world.

Problem Statement:

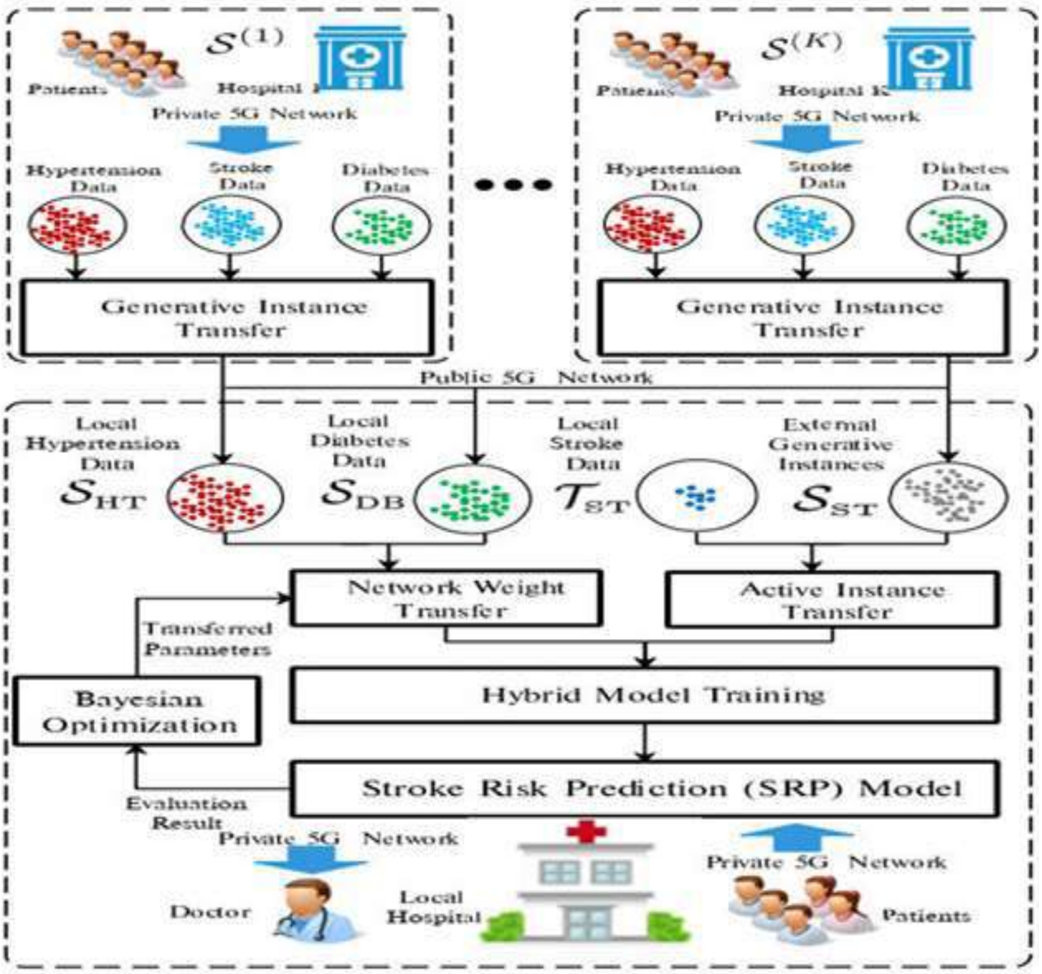
Strict privacy policies in healthcare can make it difficult to share stroke data between healthcare providers. Hybrid deep transfer learning systems may perform poorly in the real world.

CNN + LSTM:

We provide a stroke risk prediction model based on CNN+LSTM and voting classifiers, leveraging knowledge structures from multiple linked sources (external stroke data, chronic disease data such as hypertension and diabetes). Masu. The proposed model has been rigorously tested in both simulated and real environments and outperforms state-of-the-art stroke risk prediction models. Additionally, we demonstrate the potential for comprehensive deployment infrastructure in real hospitals.

Limitations:

The proposed model provides higher accuracy and improved performance. CNN is an excellent feature extraction tool that can automatically select relevant features from the raw form of input data. CNN+LSTM can provide a more comprehensive picture of heart attack and stroke risk factors by combining analysis of medical images (such as heart scans) with temporal data.



2. System architectures

Implementation: To carry out the aforementioned project, we created the modules listed below.

1) **Enter data:** Using this module we will import data into the system.
2) **The treatment:** Using this module, we will read the data to be processed.
3) The data will be divided into training and testing using this module.
4) Model building: CNN + LSTM + DT + RF + DT - Deep hybrid TL - DNN - CNN + LSTM - SVM - DT - RF - Voting classifier. accuracy of the calculation method.
5) User registration and login are required to use this module.
6) This module can be used to provide data for predictions.
7) Prognosis: The final prognosis is displayed

Algorithms Used:

Hybrid Deep TL: Using hybrid deep transfer learning (HDTL), information structures from several source domains scattered across many hospitals are transferred to the stroke target domain. The HDTL-SRP architecture was developed to work in a distributed manner without requiring organizations to directly exchange patient data. It is divided into three parts: (1) creative versioning (GIT), synthetic versioning for training models using her GAN on external data; (2) Network Weight Shifting (NWT) using data from highly correlated diseases (e.g. hypertension and diabetes). (3) Bayesian optimization (BO), which determines the best parameters to be passed; (4) Active Versioning (AIT). Select a deeper aggregated feature version to create a balanced feature dataset, which is then used for model development.

DNN: Large neural networks with complex input-output transformations are trained using DNNs. Please study carefully. The latest use of DL is to associate an image with the name of the person in the image, as is done on social media. A creative use of DL is to describe images in one word.

CNN + LSTM: The CNN-LSTM model consists of an LSTM layer that predicts the sequence and a CNN layer that extracts features from the input data. CNN-LSTM is widely used for activity recognition, image tagging, and video tagging.

SVM: Both regression and classification problems can be solved using SVM, a supervised machine learning technique. We call these regression problems, but the term classification is more appropriate. The goal of the SVM method is to find a hyperplane in her N-dimensional space that uniquely classifies the entry point.

DT: Decision trees (DT) are a nonparametric method of supervised learning that can be applied to classification and regression problems. The root node, branches, internal nodes, and leaf nodes form a hierarchical tree structure.

RF: Random Forest (RF) methods are popular supervised machine learning methods for classification and regression problems. Forests are made up of many types of trees, and we know that the more active a forest is, the more trees there are.

Voting Classifier: Kaggler regularly uses voting classifiers, a machine learning technique, to improve model performance and increase rankings. Although voting classifiers have significant limitations, they can be used to improve performance on real-world datasets.

Conclusion:

This study compared the effectiveness of deep learning and machine learning methods in accurately predicting stroke risk. Research on stroke risk prediction based on CNN+LSTM models has shown great promise and promise in the medical field. The main objective of this study was to reliably predict stroke risk variables over time by combining the advantages of long short-term memory (LSTM) and convolutional neural networks (LSTM). CNN). The project's research and results highlight a number of important factors. First, the CNN+LSTM model was evaluated by effectively combining patient monitoring time series data with medical imaging data such as MRI and CT scans. This approach synergistically improves the accuracy of risk prediction and provides a deeper understanding of the many factors that influence stroke risk. The ability to automatically extract features for CNN+LSTM models is a great advantage. The LSTM component was successful in identifying important temporal patterns from time series data, while the CNN component successfully learned relevant spatial features from medical images. The model development process has been simplified and made more efficient by eliminating the need for manual feature engineering. CNN+LSTM models are also very suitable for identifying long-term relationships and patterns in sequence data. As stroke risk variables change over time, the ability of models to identify these long-term patterns greatly contributes to more accurate risk prediction. In summary, the stroke risk prediction study based on the CNN+LSTM model shows promising results and provides useful insights for the future development of medical AI applications. . In the medical field, the ability of models to combine time-series data and images to produce accurate risk estimates will greatly improve stroke prevention and patient care.

Future Scope:

Stroke risk prediction has great promise and offers many innovative opportunities for the medical field. As AI, data analytics, and medical technology advance, we will be able to predict increasingly accurate and personalized risk assessment models. Combining modern data sources such as genetic data with wearable technology provides comprehensive real-time information to improve predictions. Longitudinal data analysis and risk assessment enable personalized prevention and intervention tactics. Creating interpretable AI models improves understanding and transparency of risk factors. Real-time risk monitoring systems and mobile health apps enable remote monitoring and quick action. These predictive models can be used more widely by sharing data and addressing ethical issues to improve patient care and stroke prevention..

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Understanding the Dynamics of Groundwater Recharge and Management in Water-Stressed Regions

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Abstract:-

Water scarcity is a pressing global issue exacerbated by climate change and unsustainable water management practices. Groundwater, a vital resource, plays a crucial role in mitigating water scarcity, particularly in water-stressed regions. This research paper aims to provide a comprehensive understanding of the dynamics of groundwater recharge and management in such regions. By synthesizing existing literature and case studies, the paper examines various factors influencing groundwater recharge, including climatic conditions, land use changes, and hydrogeological characteristics. Additionally, it explores effective strategies for sustainable groundwater management, encompassing artificial recharge techniques, policy interventions, and community engagement. The findings underscore the importance of integrated approaches and adaptive management strategies to ensure the long-term sustainability of groundwater resources in water-stressed regions.

Keywords: Groundwater, Recharge, Management, Water scarcity, Sustainable practices.

Introduction:

Water scarcity has emerged as one of the most pressing global challenges of the 21st century, threatening ecosystems, human health, and socio-economic development (UN, 2020). The situation is exacerbated by population growth, urbanization, and climate change-induced alterations in precipitation patterns and hydrological cycles (IPCC, 2014). While surface water resources are often the focus of water management strategies, groundwater plays a critical but often undervalued role in meeting water demand, especially in regions facing water stress (Scanlon et al., 2006).

Groundwater, stored beneath the Earth's surface in aquifers, represents a significant portion of the global freshwater supply, accounting for approximately 30% of total freshwater resources (Gleeson et al., 2012). It serves as a reliable source of drinking water for billions of people worldwide and supports agricultural, industrial, and ecological systems. However, unsustainable groundwater abstraction, driven by increasing demand and inefficient use practices, has led to widespread depletion of aquifers in many regions (Wada et al., 2010).

Understanding the dynamics of groundwater recharge and management is essential for ensuring the sustainable utilization of this finite resource, particularly in water-stressed regions. Groundwater recharge refers to the process by which precipitation infiltrates the soil and percolates downward to replenish groundwater reserves. The rate and spatial distribution of recharge are influenced by a complex interplay of natural factors such as climate, geology, and land cover, as well as human activities such as irrigation, urbanization, and land-use changes (Sophocleous, 2002).

In water-stressed regions where groundwater is a primary source of water supply, optimizing recharge rates and managing aquifers sustainably are critical for maintaining water security and ecosystem health. However, achieving this goal presents numerous challenges, including declining recharge rates, contamination risks, and competing demands for water allocation (Foster & Loucks, 2006). Moreover, the impacts of climate change, such as altered precipitation patterns and increased frequency of extreme weather events, further complicate groundwater management efforts (IPCC, 2014).

This research paper aims to provide a comprehensive understanding of the dynamics of groundwater recharge and management in water-stressed regions. By synthesizing existing literature, case studies, and best practices, the paper will explore the factors influencing groundwater recharge, assess the effectiveness of various recharge enhancement techniques, and examine strategies for sustainable groundwater management. Ultimately, the findings of this study will contribute to informed decision-making and the development of integrated approaches to safeguard groundwater resources in the face of increasing water scarcity and climate variability.

Factors Influencing Groundwater Recharge: Groundwater recharge is influenced by a complex interplay of natural and anthropogenic factors. Climatic conditions, including precipitation patterns, evapotranspiration rates, and temperature variations, significantly impact groundwater recharge rates (Sophocleous, 2002). Land use changes such as urbanization, deforestation, and agricultural practices alter surface infiltration rates and groundwater recharge processes (Scanlon et al., 2007). Moreover, the hydrogeological characteristics of an aquifer, such as permeability, porosity, and hydraulic conductivity, determine its ability to store and transmit recharged water (Sophocleous, 2002).

Techniques for Groundwater Recharge Enhancement:

Given the declining recharge rates in many regions, there is a growing need to implement techniques for enhancing groundwater recharge. Artificial recharge methods, such as infiltration basins, recharge wells, and spreading ponds, can effectively supplement natural recharge processes (Dillon et al., 2009). Managed aquifer recharge (MAR) schemes, which involve the intentional recharge of aquifers with surface water, have been successfully deployed in various contexts to replenish groundwater resources (Bouwer, 2002). Rainwater harvesting, another sustainable practice, entails capturing and storing rainwater for subsequent recharge or direct use (Ragab & Prudhomme, 2002). Additionally, land management practices that promote infiltration, such as agroforestry and soil conservation measures, can contribute to groundwater recharge enhancement (Lal, 2015).

Challenges and Opportunities in Groundwater Management:

Effective groundwater management is crucial for ensuring the sustainable utilization of this finite resource. However, it is fraught with numerous challenges, including overdrafting, contamination, and conflicts over allocation (Foster & Loucks, 2006). Addressing these challenges requires a holistic approach that integrates scientific knowledge, policy interventions, and community participation (Gleeson et al., 2012). Sustainable groundwater management strategies should prioritize recharge enhancement, demand management, and the protection of recharge areas (Gupta et al., 2010). Moreover, the establishment of regulatory frameworks, water pricing mechanisms, and stakeholder engagement mechanisms is essential for promoting equitable and efficient groundwater governance (Bakker, 2010).

Case Studies and Best Practices:

Several case studies exemplify successful groundwater recharge and management initiatives in water-stressed regions. For instance, the Conjunctive Use of Surface and Groundwater (CUSG) approach adopted in the semi-arid regions of India has significantly enhanced groundwater recharge and improved agricultural productivity (Shah et al., 2007). In Australia, the implementation of Managed Aquifer Recharge (MAR) schemes has helped replenish depleted aquifers and mitigate the impacts of drought (Dillon et al., 2009). Similarly, community-based initiatives such as participatory groundwater monitoring programs in Sub-Saharan Africa have empowered local communities to manage groundwater resources sustainably (Taylor et al., 2013).

Conclusion:

Groundwater recharge and management are paramount for ensuring water security and sustainable development, particularly in water-stressed regions. This research paper has provided a comprehensive overview of the dynamics of groundwater recharge and management, highlighting the complex interplay of natural and anthropogenic factors influencing groundwater resources. Throughout the paper, it has become evident that groundwater recharge is influenced by a multitude of factors, including climatic conditions, land use changes, and hydrogeological characteristics. Understanding these factors is essential for devising effective strategies to enhance recharge rates and replenish depleted aquifers. Various techniques for groundwater recharge enhancement, such as artificial recharge methods, managed aquifer recharge (MAR) schemes, and rainwater harvesting, offer promising solutions to address declining recharge rates and mitigate the impacts of groundwater depletion. However, the implementation of these techniques must be tailored to local hydrogeological conditions and socio-economic contexts to ensure their effectiveness and sustainability.

In addition to recharge enhancement, sustainable groundwater management requires holistic approaches that integrate scientific knowledge, policy interventions, and stakeholder engagement. By prioritizing recharge protection, demand management, and equitable allocation, policymakers and water managers can promote the long-term sustainability of groundwater resources while safeguarding the needs of both present and future generations.

Case studies and best practices from around the world demonstrate that successful groundwater management is achievable through collaborative efforts and adaptive governance structures. Community-based initiatives, participatory monitoring programs, and innovative financing mechanisms have proven effective in empowering local communities and enhancing groundwater governance.

In conclusion, addressing the challenges of groundwater recharge and management in water-stressed regions requires concerted action at multiple levels, from local communities to national governments and international organizations. By adopting integrated approaches, embracing innovative technologies, and fostering stakeholder collaboration, we can ensure the sustainable utilization of groundwater resources and mitigate the adverse impacts of water scarcity on ecosystems and livelihoods. Moving forward, continued research, monitoring, and capacity-building efforts will be essential to adapt to evolving hydrological conditions and ensure water security for all.

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Consumer Behaviour

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Abstract:-

This paper explores the dynamics of consumer behaviour and its impact on business profitability. It delves into the concept and features of consumer behaviour, emphasizing its dynamic and complex nature, influenced by individual differences, social factors, cultural influences, psychological factors, and external forces. The study identifies key factors affecting consumer behavior, including cultural, social, personal, economic, technological, and environmental factors, along with the role of advertising and customs/religions. The objectives of the study encompass understanding the concept, features, and factors influencing consumer behavior, as well as addressing the need for studying consumer behavior and the challenges faced by marketers in this context. The methodology involves the use of secondary data from various sources such as books, journals, and websites.

Consumer behavior is a crucial aspect for marketers to comprehend, as it guides marketing strategies, facilitates market understanding, influences product development, aids in brand building, provides a competitive edge, enhances customer satisfaction, aids in decision-making, and mitigates risks. The study acknowledges challenges before marketers, such as obtaining correct and evolving information, developing effective consumer research methods, aligning with societal marketing expectations, adapting to technological advancements, and navigating diverse psychological concepts among consumers. Recognizing and addressing these challenges are vital for businesses to thrive in dynamic markets and ensure long-term success and customer satisfaction.

Introduction:

The aim of every business is getting maximum profit. Profit of every business depends upon sales of the product. Consumer is the king of market. The purchase of goods of consumer depends upon many things. Consumers live in society. They have family background. They have to follow specific culture, customs and religion. As a result of this effect on their buying behaviour. So the study of consumer behaviour is important. In this paper the researcher study the concept, features, factors affecting consumer behaviour, need of the study and challenges before marketers with respect to consumer behaviour.

Objectives of the study:

This study carried on the basis of following objectives-

1. To study the concept, features of consumer behaviour
2. To know the factors affecting on consumer behaviour
3. To know need of consumer behaviour study.
4. To understand challenges before marketers with respect to consumer behaviour.

Methodology of the study:

Present study is based on secondary source of data. The secondary data and other information has been collected from various books, journal, websites are also used for collecting the required information.

Concept of Consumer Behaviour:

Consumer behaviour refers to the study of individuals and groups and how they select, purchase, use and dispose of goods, services, ideas or experiences to satisfy their needs and wants. Consumer behaviour means when, how, what, from where, in which quantity the consumer purchase goods.

Features of Consumer Behaviour:

The features of consumer behaviour can explain with the help of following points.

Dynamic Nature:-

Consumer preferences and behaviours change over time. It impacted by evolving trends, lifestyles and external influences.

Complexity:-

Consumer behaviour is intricate, influenced by numerous factors like social, cultural, personal and psychological elements.

Individual Differences:-

Each consumer is unique. Each consumer influenced by personal traits, attitudes, experiences which leading to varied purchasing decisions.

Social Factors:-

Family, social interactions, reference groups, culture influence consumer choices and preferences.

Cultural Influence:-

Culture plays a crucial role in consumer bahaviour. Culture shaping consumer values, beliefs and behaviour within a society or subculture.

Psychological influences:-

Psychological influences include motivation, perception, learning and attitude. Psychological influences impact how consumers perceive and respond to products and marketing efforts.

Purchase Process:-

Consumer go through stages like problem recognition, information search, evaluation of alternatives, purchase and post purchase behaviour.

External Influences:-

Technological advancements, Economic conditions and environmental concerns can significantly affect consumer behaviour.

Factors Affecting on Consumer Behaviour:-

Consumer behaviour is influenced by various factors. They are as follows –

1. **Cultural Factors :-** Cultural factors include culture, subculture and social class which can shape consumers' values, beliefs and behaviours. The human being born in family and follow the culture of that family. He gives respect to his culture and purchases the things which are suitable to his culture, subculture or social class.
2. **Social Factors:-** The human being can not live alone. He must stay in society. His behaviour is depend upon social life around him. The behaviour of him is depend upon the environment around him. Social factor is responsible for purchasing things of human being.
3. **Personal Factors:-** Age, occupation, personality and lifestyle can impact individual preferences and buying decisions. Children like toys of dark colours like red, green etc. Teenagers like fancy gadgets and adult like durable goods. Film actor likes fashionable shirts while lawyer likes white shirts. Heighted person purchases short heal boots while the person whose height is small purchases high heal boots.
4. **Economic Factors:-** Economic factor influence on consumer behaviour. Income levels, economic conditions and inflation can affect purchasing power. Rich family member spends lots of money on purchasing while poor family people only purchases goods of their need.
5. **Technological Factors:-** Today world become a village because of technology. Any product produced in one corner of world reach the other corner of world within a fraction. The quality, price, content of product are well known by the customer before arriving in the shop. Advancements in technology can shape consumer preferences and how products are marketed.
6. **Advertisement:-** Most of the people use mobile or television for entertainment. In break of any program advertisement exist. Children and females, teenagers were attracted by advertisement. So they want to purchase that type of goods which they saw in the advertisement.
7. **Environmental Factors:-** Some people live in cold atmosphere and some people live in warm atmosphere. The need of different atmosphere influence on purchase of goods. Concerns about sustainable and environmental impact may influence consumer choices.
8. **Customs and religions:-** In India, people of various religions and cultures celebrate a multitude of festivals, each with its unique customs and traditions. The celebration involve diverse forms of rituals and purchases made for these occasions vary in nature and style.

Need of consumer behaviour study:-

Studying consumer behaviour is important for several reasons. They are as follows.

Marketing Strategy:-

Study of consumer behaviour guides the formulation of effective marketing strategies by identifying target audiences and tailoring messages to appeal to specific consumer segments.

Market Understanding:-

Study of consumer behaviour helps businesses comprehend what consumers want. It enabling the development of products and services that meet consumer needs.

Product Development:-

Study of consumer behaviour informs the creation of products that align with consumer preferences. It also improving chances of successful market adoption.

Brand Building:-

Understanding consumer behaviour aids in building strong brand connections by aligning products and messages with consumer values and desires.

Competitive Edge:-

Businesses can gain a competitive advantage by responding proactively to changing preferences and market trends. They face competition easily.

Customer Satisfaction:-

Study of consumer behaviour enhances the ability to meet customer expectations, leading to higher satisfaction and loyalty.

Decision Making:-

Study of consumer behaviour provides insights into the decision making process. It also helping businesses anticipate and influence consumer choices.

Risk Mitigation:-

Study of consumer behaviour minimizes the risk of product failure by identifying potential challenges or objections consumers might have. By studying consumer behaviour, businesses can adapt and thrive in dynamic markets, fostering long term success and customer satisfaction.

Challenges before marketers with respect to consumer behavior-

There are many challenges in front of marketers with respect to the consumer behaviour. They are as follows

Correct Information:-

Gathering and interpreting correct information from customers is impossible. The consumer behaviour is always changing. So getting correct information from market is challenging to marketers.

Developing effective consumer research method0-

There are rapid changes in consumer trends and lifestyles. Searching and developing effective consumer research method is one of the challenges before marketers.

Societal marketing:-

Marketers requires to fulfill the needs of target consumer in a way that improve, preserve and enhance society's well being while at the same time meeting business objectives.

Technology:-

Technology has made many things easier and accessible to the consumers. With the help of technology like internet the consumer gets lots of information about the product and so his expectations are increased.

Psychological concept:-

The nature of behaviour of every human being is different from each other. If any person likes one product, other dislike the same product. So it is challenging to marketers to know the behaviour of human being as consumer.

Conclusion:-

This paper underscores the paramount importance of understanding consumer behaviour in the pursuit of business profitability. For getting more and more consumers understanding consumer behaviour is important. Getting more consumers means increasing sales and increasing sales means increasing profit. So achieving the aim of getting maximum profit is possible by understanding the concept, characteristics, factors affecting, challenges of consumer behaviour.

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Necessity of Alternative Cinema towards balanced societal discourse

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Abstract:-

This study seeks to investigate the alternative discourse of reel space-time in the context of the proliferation of images, signs, and syntax in mainstream Indian films, where every film has become a commodity. This article's primary goal is to analyze the various filmmaking eras from before to after globalization and suggest a positive path for the inclusion of alternative cinema in societal narratives to broaden the cultural discourse and acquire a more humanistic perspective in the future. To this end, the author has cited John Berger, Ritwik Ghatak, Prof. Anjan Chakraborty, and Kumar Sahani's textual and audiovisual references. Different parallel approaches to photographing reality can be observed during the Nehruvian Socialism era. This article sheds light on a variety of topics, including the planning of objective economic growth through state-controlled industrialization, the entry into the global economy, the continued decline of alternative film, the growth of the market economy, and the methods used to create demand from audiences. In addition, it adopts a position to recast the situation to achieve balanced dissemination.

Keywords: Alternative Cinema, Mainstream Indian Films, Globalization, Cultural Discourse Societal Narratives.

Introduction:

Nowadays, cinema is a significant academic discipline. Cinema is a means of expressing and documenting life. The raw material for cinema is life itself. Film characters reflect societal realities, including politics and economics. Cinema is a social activity and "People's Art" that addresses both individuals and society. It is deliberate and should be investigated at a certain time and location. Cinema, being an extension of the Indian psyche, can aid in the study of history while also reflecting public taste and interest in social, political, and economic issues (Roy, 2003). Narratives have a huge impact on our lives, bridging the gap between social interaction and structure. They reflect institutional and cultural structures and encourage action. However, if tales expose truths about social life, they can disrupt established power structures. They exist within social contexts and can be used as a sociological notion to describe how social actors create and convey their views (Nascimento, 2019).

Kumar Shahani (1940-2024) was a key figure in Indian cinema, known for his work as a director, screenwriter, and thinker. He is also remembered for his contributions to the parallel cinema movement, which was noted for its emphasis on social realism and artistic expression outside the mainstream. Yesterday marked the death of Kumar Shahani. No, it was not probably yesterday! Please excuse me; I had to use this framing approach from Albert Camus's book *The Outsider* (1942). This novel is about the absurdity of everyday existence. Meursault, the protagonist, fights to overcome the absurdity of a world that ignores human difficulties. Camus argues that art should teach us how to save ourselves. The novel delves into the philosophy of the ridiculous, arguing that life has no rational and redemptive value. The Outsider introduces a new perspective on psychological depth in literature (Patel, 2013). Now, allow me to pose this question: was it Camus's writing style, or is it the result of the total inertia of our present reality? What was the fate of Kumar Shahani and how did he pass away? Have you ever been aware of your body's sounds? Your heart's rhythm? Is your blood rumbling through the vein? Was there a slight sound made when Shahani died, such as when you shut a door or a window? Should we have given him a gun salute? Then again, he would have said, "*I am leaving today*," to the galaxy's distant star! Some deaths are hefty like mountains, but others are like grasshopper songs—they are so light that you barely notice someone has died.

There are no more experts. Whom am I speaking in the capacity of an expert? Here, I refer to those who stand as the cornerstones of resistance. We have encountered this experience of resistance, which was previously mentioned by John Berger, Rittwik Ghatak, and Kumar Shahani in an interview on Guftagoo. At this point, we need to consider the definition of resistance and the reasons behind its emphasis.

Allow me to begin in the distant past. Following the transfer of sovereignty from the British to the Indian government, we progressively implemented a state-controlled economic model that some scholars have dubbed Nehruvian socialism. We had a clear mission for the second five-year planning mission: we needed to alleviate poverty through state-controlled objective economic growth, which is defined as the gross domestic product (GDP) of goods and services. Looking back at this era's cultural manifestations, we can see that there were many different kinds of Indian films, particularly in the field of cinema. While we were seeing films like *Do Bigha Jamin* and *the Apu Trilogy*, we were also watching experimental films like *Bhuban Som* and *Maya Darpan*, as well as various layers of Indian cinema like *Raj Kapoor* and *Rishikesh Mukherjee* alongside *Ramesh Sippi*. The variety of films that have been produced that have the potential to appeal to a broad audience. However, in terms of societal dynamics and economic growth, these films have not been particularly successful. Because we were unable to produce a significant amount of the purchasing power in the society by the end of 1980, we were forced to reassess our planning and economic strategy of the state-controlled economic machinery. We intended to decrease poverty even if we allowed the market economy to replace the government-controlled economic plan.

Thus, globalization, privatization, and liberalization continued to have an impact on the Indian economy all through the period. The subject of why we are talking about economic growth, economic planning, etc., can therefore be divided into two phases: the post-independence era from 1950 to 1990 and the current era from 1990 to the present.

A society's socio-economic state is reflected in its culture, while socio-economic status is influenced by culture as well. Throughout the post-independence era, film supplanted other audio-visual mediums due to technological advancements, eventually emerging as the primary means of public communication.

When it came to cinematic language or syntax, we were extremely lucky to have certain masterworks like *Uski Roti, Maya Darpan, and Amma Aryan* who dared to play around with the syntax of the relatively new technology. If nothing else, we were able to witness a variety of unique voices using the language of cinema. The actions of *Mani Kaul, Kumar Sahani, Kamal Swarup*, and others that *Sayed Mirza and Girish Kasaravalli* did not approach. Of course, this age gave rise to a great deal of cinematic syntax, which expanded the realm of cultural discourse. However, state-controlled economic growth failed miserably to reach the point where purchasing power could have been high.

There was a clear concern when we declared our entry into the new field of the market economy: that the diversity of our culture would be sucked up by the free market. In actuality, how does the market economy run? It just follows the profit-making model. As a result, it simplifies the meaning and turns it into a one-dimensional product. Here, meaning refers to a language's or syntax's connotation. So language turns into a commodity when it loses its ability to convey meaning and instead becomes denotative.

Syntax – Picasso once stated, "If I could try, I could paint like Raphel within four years, but if I could try forever, I couldn't paint like a child." What does this mean, then? It is evident that Picasso made an effort to discuss brushstroke arrangement, creativity, canvas shaping and framing, colour use, and temperament. Your camera movement, shot politics, magnification, colour scheme, grouping of audio-visual developments, theme—everything will be regarded as your syntax if we transfer these aspects into a film. After Vsevolod Pudovkin introduced montage,Sergei Eisenstein did not go the same route; instead, he discovered montage in his method when *Dziga Vertov* used his camera to speak his own language in front of the audience in the movie "*Man with the Movie Camera*." Syntax, then, is how you communicate and express your story.

Resistance- We shall now employ John Berger's methods of seeing as a tool. "To be naked is to be without disguise. To be on display is to have the surface of one's skin, the hairs of one's own body, turned into a disguise which, in that situation, can never be discarded. The nude is condemned to never be naked. Nudity is a form of dress"(Berger, 2018).

Therefore, when you diminish language's ultimate capacity for meaning, you are essentially reducing language to a nude form. Already, you have turned language into a commodity, but when you do so, you are constructing a disguised kind of language as nudity. Language, or syntax, has excess meaning. Following globalization, Ninety percent of Indian films progressively become nude. Whether the message was intended for a broader audience or those on the margins, the language has been simplified and its grammar altered, losing many of the nuances that existed in the pre-globalization era.

Thus, resistance is required in this situation, and it is important to approach this resistance as your own definition of sustainability and defense against this reductionism.

Conclusion:

Regarding Kumar Sahani's remarks, I want to wrap up this piece. In a capitalist society, all products certainly not films alone or commercialised put into the market as commodities. The film maker is himself treated as a commodity rather more openly than other artists. He faces the contradiction in its acutest form the real problem is to break through the demands of the market that dehumanize both the consumer and the producer, the frescoes at Ajanta or the Sistine Chapel in the Vatican city were also commissioned works. But if the artists had defined their work by their commission, they would have produced the same kind of petty pictures that other unthinking religious artist did what the apostles of mass media have done more recently (Sahani, 2015).

In this new liberal context, we can have a balanced social discourse if we use our thinking in conjunction with the characteristics of the classical era, the techniques of filmmaking that are employed in those masterpieces, and if we can continue to improve and encourage various languages and syntax, which means alternative cinema. If not, this diverse society will be reduced to a homogenous, alienated, dehumanized wasteland.

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Human Facial Emotional Behavior Recognition Using Computer Vision Technique

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Abstract:-

Automatic emotion recognition based on facial expression for human behavior understanding based on is an interesting research field due to verity of application areas such as action and activity recognition, safety, health and in human machine/ computer interaction. Developing new approach & techniques for interpret, learn facial expressions and extract these features in order to classification and further for prediction by computer. With the remarkable success of machine learning and deep learning, the different types of architectures of this technique are exploited to achieve a better performance. This paper study on recent works on automatic facial emotion recognition FER via machine and deep learning. We gave comprehensive study of the different dataset for Human Facial Emotion Recognition (FER) used along with comparing the proposed methods and the results obtained. This paper will help and guide researcher who are interested to study in FER by review recent works and providing insights to make improvements to this field.

Keyword: FER, HRA, Machine Learning, Deep Learning, CNNs,

Introduction:

Emotion recognition from video or image is one of interdisciplinary area of research include computer science , psychology and various sub filed of computer application like artificial intelligence ,machine learning , deep learning ,pattern recognition. Human emotion can be express either verbal or non verbal clue like facial expression[1] , voice tone[2] ,psychological signals[3] . According to finding of Mehrabian , among of all emotional information 58% were visual-58% vocal-38% and verbal -7% [4]. Generally , during inter or intra communication facial expression gave first signs that transmit the emotional state and many of the researcher gaining interest to recognition emotion through facial expression. Face of one person is very with another and hence effective features extraction technique along with classification need to developed for accurately understand facial expression through face. Facial Action Coding System (FACS) in which facial movements are described by Action Units AUs, they are broken down the human face into 46 AUs action units each AU is coded with one or more facial muscle.[5]. When it comes to statistics, researchers have examined automatic FER the most out of all the modalities, but it is a difficult process because every individual expresses his or her emotions in a different way. This field has a number of difficulties and problems that one should not ignore, such as variations in head positions, brightness, age, gender, and background, in addition to the issue of occlusion brought on by scarves, sunglasses, skin conditions, etc.[6]. To extract facial feature local binary patterns LBP [7] local directional patterns LDA [8], Gabor wavelet [9] for geometric and texture features was carried out in past . Now a days because of the advancements in machine learning and deep learning architectures, such as the recurrent neural network (RNN) and convolution neural network (CNN), which enable the automatic extraction of features and classification. Researchers work on deep neural network architectures for a number of reasons, and their efforts provide very good results.

In this research paper, we provide of recent advances in Facial Emotion Recognition (FER) by recognizing facial expressions using different Machine Learning and deep learning architectures from 2016 to 2023 with an interpretation of the problems and contributions. We present in section II - listed publicly available databases, section III with recent state of the art on the FER using deep learning , section IV with discussion and comparisons and lastly with section V with general conclusion with the future work.

Section II : Facial Expression Reorganization (FER) available databases

One of the success factors of deep learning is training the neural network with examples and multiple FER databases are now available to researchers for this task, each varying in number and size of images and videos, variations in light, population and facial pose. Some are shown in Table.1 where we note its appearance in the works cited in the next section

Section III: Literature review

Sr. No	Dataset	Emotions	Dataset description	Modality	Reference
1	MultiPie	Anger,Disgust,Neutral, Happy, Squint,Scream, Surprise	More than 750,000 images captured by 15 view and 19 illumination conditions	Image	10
2	MMI	Six basic emotions and neutral	2900,videos, indicate the neutral, onset, apex and offset	Video	11
3	GEMEP FERA	89 images sequences	Anger,Fear, adness, Relief, Happy	Image	12
4	SFEW	Six basic emotions and neutral	700 images with different ages, occlusion, illumination and head pos	Image	13
5	CK+	Six basic emotions, contempt and neutral	593 videos for posed and non-posed expressions	Video	14
6	FER2013	Six basic emotions and neutral	35,887 grayscale images collect from google image searc	Image	15
7	BU-3DFE	45Six basic emotions and neutral	2500 3D facial images captured on two view -45°, +	Image	16
8	CASME II	Happy,Disgust, Surprise,Regression and others	247 micro-expressions sequences	Image	17
9	Oulu-CASIA	Six basic emotions	2880 videos captured in three different illumination conditions	Video	18
10	AffectNet	Six basic emotions and neutral	More than 440.000 images collected from the internet	Image	19
11	RAFD-DB	Six basic emotions and neutral	30000 images from real world	Image	20
12	RaFD	Six basic emotions, contempt and neutral	8040 images with different face poses, age, gender, sexes	Image	21

Human facial emotion recognition through traditional handcrafted feature extraction did a remarkable job in last decade. With advancement of machine learning and deep learning technology with computer vision now a days researcher focus on automatically reorganization of emotion from video and images . Here we proposed methods of deep learning with computer vision in order to obtain better detection . Mollahosseini et al., in his study propose deep CNN for FER . The facial Landmarks was extracted from data and reduced image to 48x 48 pixels and data augmentation technique applied after that . Two convolution-pooling layers make up the architecture, which is followed by two inception type modules with convolutional layers of sizes 1x1, 3x3, and 5x5. They demonstrate the usage of the network-in-network technique, which reduces the over-fitting issue and allows for increased local performance due to locally applied convolution layers [23]. In order to improve the network's ability to classify emotions, Lopes et al. investigated the effects of pre-processing data. The processes that were used prior to CNN, which consists of two convolution-pooling layers finishing with two fully linked with 256 and 7 neurons, were data augmentation, rotation correction, cropping, down sampling with 32x32 pixels, and intensity normalization. At the test stage, the ideal weight that was attained throughout the training phase is employed. Three readily available databases—CK+, JAFFE, and BU-3DFE—were used to assess this experience. Studies reveal that implementing each of these pre-processing processes individually is less successful than combining them all.[24] Mohammadpour et al. [25] equally used these pre-processing methods. They suggest using a unique CNN to find facial AUs. Two convolution layers are used in the network, each of which is followed by a max pooling and two fully linked layers that show the number of activated AUs. In 2018, addressing the disappearance or explosion gradient problem Cai et al. [26] offer a novel architecture CNN with Sparse Batch normalization SBP. This network's characteristic is using two convolution layers sequentially at first, then max pooling and SBP. It also applies dropout in the middle of three fully connected layers to lessen the issue of over-fitting. Li et al. [27] provide a novel CNN strategy for the facial occlusion problem. Firstly, they apply the CNN technique with attention mechanism ACNN, after which they introduce data into VGGNet network. Three sizable databases—FED-RO, RAF-DB, and AffectNet—were used to train and test this architecture.

Section IV : Proposed Methodology: After literature review we decided to choose standard benchmark dataset FER2013. Detail regarding dataset given separately. The CNN is widely used method of image and image analysis. Standard CNN is used to extract expression called expressional vector (EV). The dataset contains the various expressions of the facial image. Each convolution layer contains four filters say Shapes, edges, textures, and objects are typically included in the input image that is supplied to the first-part CNN (used for backdrop removal). CNN layer1 used for edge detector, circle detector, and corner detector purpose. CNN layer2 used for detects facial features such as the eyes, ears, lips, nose, and cheeks once the face has been identified by using additional filtering methods, such as the median and Gaussian noise filters. Facial feature extraction using a holistic approach, the hybrid approach, the geometric approach, and the template-based technique was a key for emotion recognition. The overall architecture follows preprocessing, feature extraction, proposed modified CNN created , classification , and class prediction. The overview of the proposed architecture Fig 1

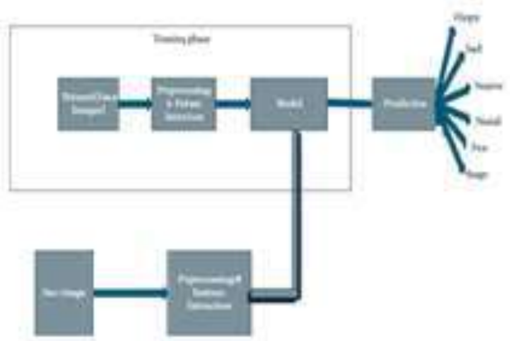

Fig 1. Proposed architecture

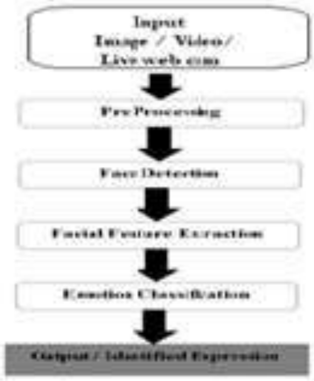

Fig 2 . Proposed architecture workflow

Dataset :

From Kaggle open we download FER 2013 benchmark dataset. The dataset consists of 48x48 pixel grayscale images of faces. The faces have been automatically registered so that the face is more or less centered and occupies about the same amount of space in each image. Each image corresponds to a facial expression in one of seven categories (0=Angry, 1=Disgust, 2=Fear, 3=Happy, 4=Sad, 5=Surprise, 6=Neutral). The dataset contains approximately 36K images. The image expressions in our training dataset are pretty balanced, except for the 'disgust' category. Fig shows dataset distribution. The original data consisted in arrays with a greyscale value for each pixel. We converted this data into raw images and splitted them in multiple folders. 80% of our images are contained inside the train folder, and the last 20% are inside the validation folder.

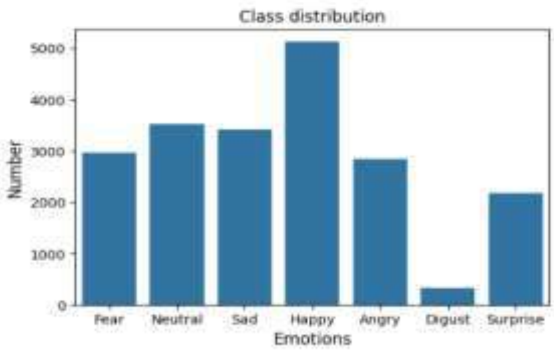

Fig 3. Overview of dataset 7 classes

Fig 4. Overview of dataset 7 class sample image

Section IV: Experimental setup & analyze the results :

We uses Open Computer Vision Library(OpenCV) with python ,Jupiter IDE, Tensor Flow , Keras ,numpy ,pandas,sklearn , matplotlit , seaborn with Intel processor with 8 GB RAM. OpenCV is freely available with more than 2500 algorithms specifically designed to carry out Computer Vision and Machine Learning related task such as Face Recognition, Object Identification, Camera Movement Tracking, Scenery Recognition etc.

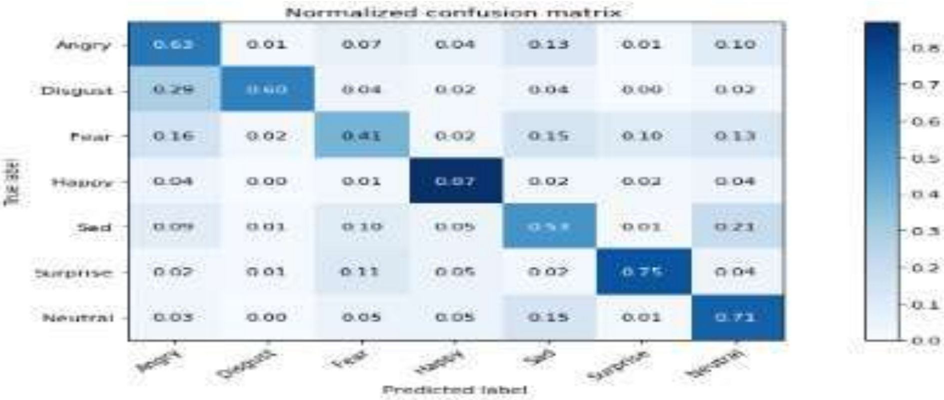

Fig 5. Confusion Matrix

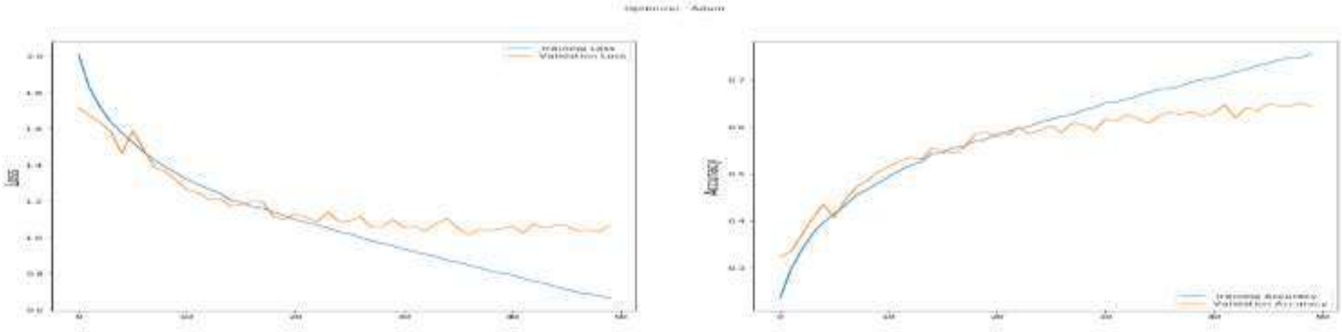

Fig 6. Tanning and Validation curve

Table 2. Comparative result

Dataset	Architecture	Accuracy	Year	Reference
FER2013	CNN	61.1%	2016	Mollahosseini et al[23]
FER2013	CNN	62%	2019	Agrawal et Mittal[29]
FER2013	CNN	65%	2024	Our

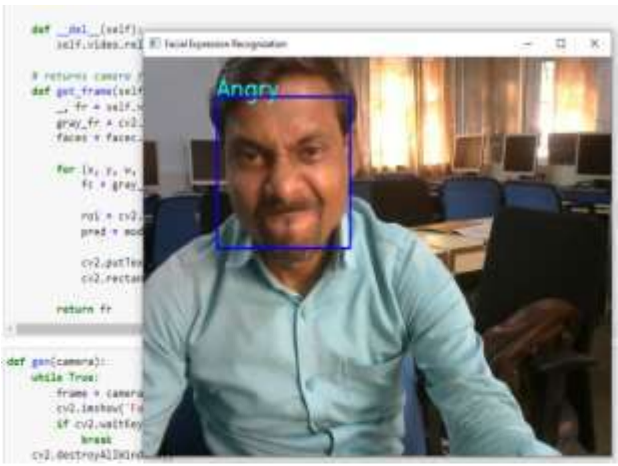

Fig 7. Test result in real time environment with live web came

Section V: Conclusion & future work

Automatic emotion recognition based on facial expression for human behavior understanding using FER dataset with our proposed model give better r compare to other two CNN based approach. We will implement our approach with transfer learning methodology with different deep leaning algorithm to analysis the result for prediction.

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Managing International Communities: The Socio-Economic Dynamics of English Language in Social Science

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Abstract:-

English, being the universal language of the world, is essential for influencing many facets of social life, facilitating communication, and forming socioeconomic dynamics. This article examines the relationship that exists between socioeconomic development, social science research, and English language proficiency. It looks at how globalization, educational policy, and language laws affect socioeconomic results in many cultures and societies. This study emphasizes the value of English language competency in advancing socioeconomic development, improving educational possibilities, and building cross-cultural understanding through a multidisciplinary approach. This research also adds to a fuller knowledge of the intricate relationship between language, society, and economic development in the modern global economy by drawing insights from a variety of academic publications and empirical studies and examines the socio-economic significance of the English language in the field of social science. The methodology followed in this article is as per the norms stipulated in M L A HandBook for Writers of Research Papers, Seventh Edition, Edited by Judy Goulding. (First East - West Press Edition 2009).

Keywords: language policy, education, globalization, socioeconomic importance, social science, English language, and cross-cultural communication

Introduction:

The English language has become a powerful force in the global socioeconomic scene, having a significant impact on trade, education, communication, and cross-cultural interchange. The role of English as a lingua franca has grown in an era of globalization, influencing academic discourse, business dealings, and social interactions in a variety of cultural contexts. This is because cultures are becoming more interconnected. Within the context of social science research, we explore the socio-economic significance of English language proficiency in this study and consider its consequences for societal development, economic opportunity, and individual mobility.

Governments and other institutions' language policies have a significant impact on how a society develops socioeconomically. The language used in trade, government, and education has a big impact on social mobility, access to opportunities, and cultural identity. The decision to use English as a teaching language in schools and colleges throughout many countries can be seen as a calculated reaction to the demands of the information economy and globalization. The forced adoption of English, particularly in multilingual communities where indigenous languages are disadvantaged, can worsen socioeconomic disparities and threaten linguistic variety.

Language Policy and Socio-Economic Development:

The effects of language policy on socioeconomic advancement are intricate and varied. Governmental and institutional language policies have the power to either increase or decrease social exclusion. Decisions about the language to be used in public discourse, administration, and education can have a big impact on opportunities and resources in multilingual environments.

Language policies that assist the preservation and promotion of indigenous languages help to preserve cultural heritage and empower communities in areas with a high degree of linguistic variety. To ensure that linguistic rights are respected, however, the implementation of such rules necessitates careful planning and resource allocation. The goal of improving international competitiveness and facilitating access to global knowledge networks frequently motivates the adoption of English as a medium of instruction in schools and universities. But, especially in post-colonial settings, the extensive use of English can also weaken cultural identities and denigrate regional tongues.

There is a strong correlation between language competency, especially in English, and socio-economic outcomes like income levels, work prospects, and educational attainment. Socioeconomic gaps between linguistic groups are likely to deepen as a result of people's increased access to global markets, higher education, and employment prospects. Implementing language policies successfully involves overcoming a number of obstacles, such as a lack of funding, opposition from linguistic minorities, and sociopolitical conflicts related to language identity and nationalism. It is a complex endeavour that calls for subtle policy responses to strike a balance between the demands of globalization and economic progress and the necessity for linguistic diversity.

English has become a universal language due to the acceleration of its spread, which has influenced national and international language policy decisions. Since English is so widely used in fields like commerce, technology, and academia, many nations have made English language education and certification programs a priority, further solidifying English's reputation as the language of opportunity and mobility. Language policies should be based on these concepts, guaranteeing that people of various linguistic backgrounds have equitable access to public services, work opportunities, and education. In an increasingly interconnected world, acknowledging and appreciating linguistic diversity is crucial for advancing inclusive communities and developing intercultural understanding.

In conclusion, language policy has a significant impact on social inclusion, economic opportunity, and educational attainment, all of which are outcomes of socioeconomic development. Governments and institutions can contribute to more egalitarian and sustainable societies by implementing inclusive language policies that respect linguistic variety and foster fair access to resources.

Education and Economic Empowerment:

Education is a major factor in determining socioeconomic mobility, and having a strong command of the English language is frequently regarded as a prerequisite for both global citizenship and economic empowerment. In many places of the world, speaking and understanding English is linked to better educational outcomes, more favorable employment opportunities, and higher earning potential. The desire to compete in the global labor market and take part in cross-border collaborations has led to an increase in demand for English language training and certification programs. Nonetheless, there are still gaps in the availability of high-quality English language instruction, and differences in pedagogical practices, infrastructure, and resources lead to different results for different socioeconomic groups.

An essential component of socioeconomic development is education and how it relates to economic empowerment. It is often acknowledged that social mobility and economic empowerment are largely dependent on education. Having access to high-quality education gives people the know-how, abilities, and skills they need to succeed in the job market and advance economic development.

The role of English language proficiency: Being able to communicate in English is frequently linked to having more economic prospects and being more competitive internationally. English language competency opens up more educational and career options for people in today's globally connected world, especially in fields like technology, business, and academia where English is the primary language of communication. Although it is widely acknowledged that education is essential for achieving economic empowerment, there are still disparities in access to high-quality education amongst various socioeconomic classes and geographical areas. Educational inequalities and disparities in economic prospects are sustained by socioeconomic differences in access to resources for education, such as infrastructure, trained teachers, and instructional materials.

Despite the fact that speaking English can increase one's chances of finding work, there are still gaps in the supply of high-quality training, particularly in low-income and rural areas. Funding shortages, instructor inexperience, and outdated pedagogical approaches can impede effective English language training, exacerbating the gap between English language proficiency and economic success.

The programs such as Vocational and Technical Education are essential in providing people with real-world knowledge and abilities that are applicable to the workforce. Vocational education programs enhance individuals' employability and earning potential by providing training in fields like healthcare, engineering, and information technology. This leads to economic empowerment. In a world economy that is changing quickly due to new technology and changing skill requirements, lifelong learning is crucial to being relevant and adaptable economically. People can stay competitive in the job market, pursue new career paths, and improve their abilities by having access to options for continuing education and skill development. In areas where social norms and cultural practices restrict women's access to higher education and the workforce, gender differences in these areas continue to pose a serious obstacle to economic empowerment. Addressing gender-based inequities in economic empowerment requires concerted efforts to promote gender equality in education and employment, including targeted interventions and legislative reforms.

To sum up, education is essential to economic empowerment because it gives people the information, abilities, and chances they need to enhance their standard of living and support sustainable growth. Governments and stakeholders can promote social progress and economic empowerment for people worldwide by funding inclusive and equitable education systems that place a high priority on everyone's access to high-quality education.

Globalization and Cross-Cultural Communication:

As a result of its transformative effects on communication, collaboration, and economic practices, globalization has increased interconnection and interdependence between communities and nations. As a result of its ability to promote cross-cultural communication and help people and organizations overcome linguistic and cultural divides in the sake of shared objectives, English has become the de facto language of globalization. English language competency is necessary for social science researchers to interact with a worldwide audience, participate in international conferences, and access academic publications. But the predominance of English in scholarly discourse also calls into question the inclusivity of knowledge creation in a worldwide world, linguistic hegemony, and epistemic diversity.

Cross-cultural contact and globalization are essential components of modern civilization. The term "globalization" describes how economies, communities, and cultures all over the world are interdependent and related to one another. Technological, communication, and transportation advancements have made it easier for people to trade commodities, services, information, and ideas quickly and globally, shattering preconceived notions and changing social, political, and economic environments in the process. The emergence of a global village is a result of the transformation of communication patterns and the reach of cross-cultural connections brought about by the arrival of digital technology, particularly the internet and social media platforms. Instantaneous connections between people from different cultural origins may now be made by individuals and communities, creating a sense of global interconnectedness and shared identity that is often referred to as the "global village."

English has become the language of choice for globalization and cross-cultural communication, acting as a common language for interaction in academics, popular culture, business, diplomacy, and international trade. The extensive usage of English makes it easier for people from various linguistic origins to collaborate and communicate with one another, fostering the growth of cross-cultural communication and exchange. As a result of increased interactions between individuals with different cultural origins brought about by globalization, there is a greater diversity of intercultural encounters. Cultural awareness, empathy, and respect for variations in values, beliefs, and communication styles are necessary for effective cross-cultural communication. Gaining intercultural competency is crucial for interacting with people from different cultural backgrounds and creating lasting relationships.

Even while globalization and cross-cultural communication have many advantages, there are also issues that can make it difficult to collaborate and communicate effectively, including language hurdles, cultural misunderstandings, and ethnocentrism. Communication breakdowns and interpersonal disputes can result from misinterpretations caused by variations in language, nonverbal cues, and cultural norms. This emphasizes the significance of cultural knowledge and sensitivity in cross-cultural encounters. Across national and regional borders, cultural practices, identities, and symbols are more easily exchanged and hybridized thanks to globalization. The merging of cultural components from other traditions, or "cultural hybridization," captures the fluidity of modern cultural identities and expressions in an increasingly interconnected globe. Cultural syncretism and fusion challenge ideas of cultural purity and authenticity while adding to the complexity and diversity of world culture.

Respecting cultural variety, social fairness, and human rights are only a few of the ethical issues that must be taken into account. It is critical to approach cross-cultural relationships with humility, transparency, and an open mind in order to absorb different points of view. Developing ethical sensitivity and awareness fosters ethical decision-making in cross-cultural settings and improves understanding between people. In conclusion, globalization has changed how we interact, communicate, and work with many people and cultures around the world. Building bridges across cultural barriers, promoting mutual understanding, and encouraging peace and cooperation are all made possible by cross-cultural communication in an increasingly interconnected global society. Individuals and society can leverage the transformative potential of globalization to build a more equitable, harmonious, and interconnected world by embracing cultural variety and fostering inclusive communication practices.

Conclusion:

In conclusion, the socio-economic significance of the English language in the social science discipline is intricate and varied, encompassing wider patterns of urbanization, globalization, and technological advancement. Speaking and understanding English is becoming more and more seen as a tremendous advantage in the pursuit of socioeconomic development, providing people and communities with more chances for learning, working, and engaging in cross-cultural interactions. Nonetheless, significant concerns concerning social fairness, linguistic diversity, and the democratization of information in a globalized society are brought up by the commercialization of English and the unequal distribution of linguistic resources. In order to achieve social justice and human development, it is crucial that social science researchers and practitioners critically examine how the English language shapes socioeconomic dynamics and work to advance inclusive and equitable approaches to language policy, education, and communication.

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A Comparative study of language development of private and government pre-school students with respect to gender

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Abstract:-

Children vary extensively in their language skills at school entry, and a substantial part of this variation is due to disparities in language exposure prior to school. Because these differences have continuing impact on academic, cognitive and social development, prevention and intervention programs have been developed to address deficits in early experience with language and prevent continuing difficulties. Language development is an efficient and rapid process that, in terms of key milestones, occurs in a relatively uniform fashion for the majority of children. The purpose of this article is to compare the language development of government preschool girls and boys students. This study was conducted on 100 pre-school students (50 boys and 50 girls) and data was collected by administering the language development test. As per the findings there is no significant difference between boys and girls with regard to language development whereas significant difference was found in the language development between preschool students from government and private school. The results show that girls produce significantly more words than boys; their utterances contain a greater number of grammatical forms, and are more complex syntactically. The results also showed that private school students are performed better as compare to government preschools students. These findings suggest that caution is necessary when assessing young children to interpret performance in light of factors that may contribute to it, including gender.

Keywords: Language development, preschool students, gender, government and private preschools.

Introduction:

India, the largest democracy in the world, is second to China in its population (1.21 billion), which accounts for 17.31% of the world's population (Source: Census of India, 2011). After 64 years of independence, India has been able to achieve 74.04 % literacy (Source: Census of India, 2011), while its Asian counterparts, such as China, the Philippines, and Thailand, have crossed the threshold by achieving 100 % literacy. Education has always been perceived not only as an agent of social change but also as the basis for creating a dynamic, liberal, and growth-oriented society. In the 21st century, major paradigm shifts are taking place in the field of education. The focus of the entire world has shifted to the quality of early education (NEP,2020) Determining the quality of the school environment in early childhood education is of paramount importance, and it can assist in the understanding of children's relationship with language acquisition. Language plays a significant and central role in understanding and utilizing knowledge. It is a tool for communication among people to express their thoughts, emotions, and feelings. The language development of young children is associated with the amount of language exposure they receive during infancy and early childhood. More exposure to and more frequent usage of a particular language promotes children's abilities in that language (Hammer et al., 2014; Hoff, 2013). Between the ages of about 18 or 19 months and 42 months of age, the child acquires approximately 1,200 words, an average of at least 1 or 2 new words each day over a 2-year period (Rondal 1978). Between the ages of 18 and 24 months, the child uses utterances composed of two words (combinatory stage). Gradually, words are combined to form sentences. The utterances children produce between 18 and 21 months of age are composed of a "collection of words"; but at 30 months children use some utterances that are more complex, demonstrating good knowledge of the basic syntax of the language used in their environment (Parisse and LeNormand, 2000).

In the early years, the teaching of language and literacy should provide children ample opportunities to explore themselves as readers and writers, along with providing a balance of learning 'lower-order' skills (e.g., phonological awareness, decoding, writing letters and words correctly) and 'higher-order' skills (e.g., oral language development, engaging with books, drawing, and original writing) which are meaning-focused. (NCF 2020). The first years of a child's life are the most important for the development of language skills, which occurs in phases and it is associated with linguistic and situational contexts.

The development of language before school entry has been shown to be strongly related to a host of child outcomes in primary and secondary education (McLoyd 1998; National Institute of Child Health and Human Development [NICHD] Early Childcare Network, 2005). Early language development consists of communicative sounds and gestures, and more importantly, the child's comprehension of the surrounding world via social interactions. Language is acquired rapidly in early childhood. It is widely recognized that, from a young age, girls demonstrate better linguistic skills than boys in terms of vocabulary size and syntactic complexity (Fenson et al., 1994; Galsworthy, Dionne, Dale and Plomin2000; Hyde & Linn, 1988; Maccoby & Jacklin, 1974). A large number of studies in different languages have addressed the question of the influence of genderFootnote1 on language acquisition, in particular, because the use of parental reports has emerged as a research strategy and the need for early evaluation of language has been recognized (Eriksson and Berglund1999; Fenson et al., 1994; Jackson-Maldonado, Thal, Marchman, Bates and Gutienez-Clennen1993; Kern2007; Maital, Dromi, Sagi and Bornstein2000; Thodardottir and Ellis-Weismer1996). In addition to individual differences, gender may also influence language development during early childhood. Girls demonstrate better linguistic skills than do boys, even from a young age (Bornstein, Hahn and Haynes2005; Boudreault and Trudeau2005; Galsworthy et al., 2000; Hyde and Linn1988; Maccoby and Jacklin1974; Morisset, Barnard and Booth1995).

The National Education Policy (NEP, 2020) recognizes that the ability to read, write and perform basic operations with numbers is a necessary foundation and an indispensable prerequisite for all future schooling and lifelong learning. The NEP 2020 recognizes that over 85 percent of a child's brain develops by the age of 6 and emphasizes on providing critical importance to appropriate care and stimulation of the brain in a child's early years for healthy brain development and growth. To see the good results of students, English language should be teach in pre-primary stage. The child's language and their communication environment influence the child's performance at school entry in addition to their social background. Children's success at school is governed not only by their school environment, teacher's education. Knowledge and provide proper study materials to preschool students.

Objectives: The objectives of the study: -

1. To investigate the difference in language development among boys and girls of preschool students.
2. To study the difference in language development among government and private pre-school students.

Hypotheses

1. There is no significant difference in the language development among boys and girls pre-school students.
2. There is no significant difference in the language development among government and private pre-school students.

Research Methodology: In this study Ex-Post-Facto-Research method was used. The sample of my study was, preschool learners and the main objective of my study is to find out the impact of early childhood care and education on language development with respect to gender and government and private preschools.

Participants: The participants were 100 preschoolers. Self- developed language development scale was used for measuring the language development of preschoolers.

Materials: Language development scale- This scale was developed by investigator and completed by preschoolers also fill the additional information i.e. Name of the participant, age, gender, parent' occupation and income of parents etc. For each item, the child is given a verbal direction and then shown a stimulus object or a picture. Then the child is invited to respond to prompts for each item. This response was scored.

Procedure: Once school higher authority gave their consent and the eligibility of their child was confirmed. Self-developed language development scale was completed by preschoolers with the help of class-teacher and investigator. 20 minutes were given to each preschooler. Parents information was collected with the help of parents. Investigator gave instructions to preschoolers, how to fill it and also supervise the class during all this work.

Analyses: The data from language development scale was analyzed separately.

Hypothesis 1. There is no significant difference in the language development among boys and girls of pre-school students.

Table 1- Showing Mean scores, SD, t-value of language development among boys and girls among preschool Students

	N	Mean	S.D.	t-value	Remarks
Boys	50	90.66	19.93	-0.83	Insignificant
Girls	50	94.24	22.67		

The above table presents the mean score of language development among boys and girls among preschool students that is 90.66 and 94.24 respectively. The t-value is 0.83 and t-critical is 1.98. As 0.83 is less than 1.98, so the difference is insignificant and therefore null hypothesis is accepted. It means there is no significant difference in boys and girls of preschool students with regard to their language development. There is difference in mean boys and girls i.e. 90.66 and 94.24, but it is not statistically significant. Hence null hypothesis i.e there exists no significant difference in language development between boys and girls of preschool students is accepted and it is concluded that language development does not vary in preschool students on the basis of gender

Hypothesis 2. There is no significant difference in the language development among government and private pre-school students.

Table 2- Showing Mean Scores, SD, t-value of language development among government and private pre-school Students.

	N	Mean	S.D.	t-value	Remarks
Government	55	87.4	19.11	-2.21	significant
Private	45	96.58	22.28		

The above table depicts the mean of government and private preschools i.e. 87.4 and 96.58 respectively. The t- value came out as 2.21 in comparison to t-critical which is found as 1.98. As the calculated value is greater than table value hence the null hypothesis that is there exists no significant difference in the language development among preschool students from government and private stands rejected as the difference is found as significant. Language development is found more in students from private schools as compared to students from government.

Recommended for Preschool children

1. A regular teacher training, school readiness and early literacy will be required.
2. Classroom for 25 children will be provided with adequate space, ventilation and storage facility for transacting activity-based curriculum.
3. Play way learning material will be provided and Midday meal and health care facility.
4. Learning materials, sitting mats, display arrangement, small work tables and few thematic activity corners should be provided.
5.Training and continuous onside support and professional development of the educational stakeholders following will be supported.
6. A critical intervention in the context of preschool education will be the need to reach out to all stake holders including parents, community members, administrative personal and policy makers.
7. In NCERT, SCERT early learning curriculum and training units will be created strengthen and resources provided.
8. Preschool classroom educators should utilize new, non-academic activities in preschool classroom curricula. Two new non-academic activities that were observed in this preschool (and not mentioned in the literature) were social mealtime and dance party.

Conclusion:

The study concluded that there is no significant difference in boys and girls preschool students with regard to language development and there is significant difference in students from private and government schools with regard to language development. Lack of teaching skills in teachers, environment, teaching materials etc are the main reasons behind the results of above. The difference in the result of private and government school are lack of study material, proper implication of curriculum, teachers professional development etc. so, for the improvement in the result there should be proper implications of curriculum and provide proper environment and study materials to the preschool students. During this childhood period, children's intellectual and social developments proceed at the pace illustrated by their acquiring sophisticated language skills and adopting culturally accepted behaviour. (NGOs Newsletter SAMP ARK, Jan. - March 1999).

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An Investigation of the Connection between Artificial Intelligence and Digital Advertising in Marketing Strategy-Related Fields

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Abstract:-

The current study looks at the interaction between artificial intelligence (AI) and digital advertising (DA), and how that relationship affects the development of a marketing strategy (MS) that works for any kind of business. The report makes a few recommendations for actions that can assist marketers in strengthening their marketing plans. Digital marketing, a legitimate subject of marketing science, has improved customer engagement through electronic services and added value for firms. The digital age has made it easier for industries to keep an eye on their processes, such as production, distribution channels, branding, promotion, and advertising. Business managers might be able to make better-informed decisions with greater accuracy if they have access to collected data, an interactive customer experience, and a digital summary of processes and sales. This study examines the many facets of the relationship between digital advertising and artificial intelligence. This study is descriptive, and the data was gathered by the survey method. We measured the face, discriminant, and concept validity of the Artificial Intelligence Survey Instrument (Weng, 2020) and the Marketing Strategy Scale (Weng, 2020). In addition, the reliability of the data was measured by calculating Cronbach's alpha coefficient (α) and composite reliability (CR). The necessary data was analyzed using the SPSS software package (ver. 22) for descriptive statistics and the Smart PLS software for inferential statistics and structural equation modeling (SEM). Marketing has altered due to our communication with customers. There has been a significant change, and it is changing every day. Machine learning and artificial intelligence are the major changes occurring in the marketing industry. Marketing and storytelling are given new opportunities by it. It is going to alter how consumers engage with companies, services, technology, and information. For marketers to be successful in the current digital marketing environment, artificial intelligence technologies must be incorporated into their marketing plans. It keeps customers' thoughts occupied without the need for human engagement, saving marketers, customers, and prospects money and time. The findings of the study may help business managers and strategists understand how DA and AI interact and how it affects the development of marketing strategies.

Keywords: Digital Advertising, Artificial Intelligence, Marketing, Strategy, Communication Technologies

Introduction:

The rapid development of information and communication technologies (ICT) in both the public and private sectors has led to the recent emergence of the digital advertising (DA) environment (Aaker, 2022). Businesses employ this kind of marketing organically to further manage and promote their brands as a result of clients using the internet more frequently. Organizations ranging from enterprises to hospitals, schools, professional groups, councils, and even non-governmental organizations (NGOs) are using DA as part of their marketing strategies and deployment plans. According to Albers-Miller (2020), the majority of firms utilize the Internet as a conduit or channel for corporate communication, however, some can build their e-commerce platforms. The increase in consumer use of digital media channels over the last 10 years has been quite significant. To connect with their target audiences, companies are utilizing the most effective DA tactics. There have been over 2 billion internet users as of 2010; this number is expected to rise annually due to the significant increase in usage. Amidst this, direct advertising (DA) has become a crucial tool for introducing new products and services because of the intensified competition and changing tastes of consumers. According to Nuseir and Aljumah (2020), direct advertising (DA), commonly referred to as electronic marketing (e-marketing), is online advertising that involves sending electronic messages to potential customers. Today's global, intense competition has made using digital technology trends to reach customers essential in defining development over the next ten years (Miller, 1999). Through innovation and technical improvement, businesses always plan to increase their competitive standing.

The majority has consequently recognized the necessity of implementing and adopting technologically novel solutions to assist their operations in conveying the most recent information (Aggarwal, 2017). The increasing ways that digital technologies have impacted lives have led to a rise in competition, which has affected corporate operations, especially in the areas of communication and information sharing. These tools and applications are thought to be the most effective means of initiating contact with clients straight away. Established marketing strategies are proving inadequate in the current highly competitive business landscape, so companies are trying to replace them with more dynamic approaches and operational technologies, such as customer and stakeholder communication (Kaur, 2017). According to Yoga, Korry, and Yulianti (2019), the utilization of digital technology for marketing communication facilitates the establishment of enduring customer-marketer relationships, which are necessary for the attainment of combined objectives and expansion. It's critical to emphasize that firms should aim for more effective strategic decision-making, according to the perception of DA competence. By employing DA to identify potential risks and sustain market competitiveness, they can even identify new business opportunities. Since there isn't much information on the relationship between DA and marketing strategy (MS) in the pertinent literature, the purpose of this study is to analyze the interactions between DA and MS. Keeping in mind that a company is a value chain composed of a variety of activities, this study focused on marketing for several reasons. These activities include primary operating functions like production, marketing, sales, and service, as well as supporting ones like information systems, human resource management (HRM), and research and development (R&D). First, a company's entire MS production is greatly impacted by its marketing strategy (Dobni & Luffman, 2003). Second, production, sales, and customer service are only a few of the other corporate operations that marketing is usually connected to (Tseng, 2016). Furthermore, since the ability to efficiently obtain and evaluate data is a prerequisite for every marketing decision, marketing intelligence (AI) establishes the groundwork for marketing initiatives across the board for corporate operations (Trainor, Krush, & Agnihotri, 2013). Thus, this study aimed to explore the relationship between DA and MS as well as the impact of AI in this context.

Theoretical Bases Of Marketing Strategy And Digital Advertising

Businesses may use the internet and the right analytics tools to quickly learn more about consumer patterns with a few clicks. Because of this, DA's measurement potential sets it apart from other marketing strategies and platforms. According to Ketchen et al. (2018), there are significant data trails that can be derived from the digital shadows cast by internet users and utilized as inputs for marketing analytics. Empirical research on DA approaches has been proposed recently as a way to help small and medium-sized firms (SMEs) operate better (Baka, 2016). To remain competitive in the digital era, assessments, and strategic efforts are required in light of the growing influence of technology-based data analytics on traditional marketing tactics (Baltes, 2015). Because of their significance, some of the most well-known companies, such as Nike, Rolex, Coca-Cola, and the New York Times, have also lately started DA campaigns that are expected to be successful in increasing and guaranteeing consumer awareness. According to additional research, DA has a positive effect on staff engagement levels, higher sales rates, and loyalty and trust (Hollebeek & Macky, 2019). Due to the effective application of DA efforts, the development of customer relationships and their sense of attachment has also contributed to higher performance levels in enterprises (Hollebeek & Macky, 2019). Conventional marketing strategies have also been supplanted by the rise of technology and digitization. Furthermore, unsuitable for the expansion of sustainable enterprises are such antiquated methods. For organizations to succeed in today's fast-paced and fiercely competitive business environment, DA is essential. In addition to facilitating income generation and establishing enduring partnerships, digitization centralizes the process of information exchange and communication among stakeholders inside an organization (Batini, 2015).

This led to an examination of the following theories:

Hypothesis 1: A strong positive correlation exists between the Cost leadership (CL) strategy and DA.

Hypothesis 2: The differentiation (DF) strategy and DA have a strong positive correlation.

Concerning Artificial Intelligence and Digital Advertising:

Artificial intelligence (AI) is defined as computer programs that gather information and use it to perform tasks that intelligent humans would perform as efficiently as feasible. Guruduth Banavar, the head of IBM's AI research, refers to AI as "a portfolio of technologies" due to its wide variety (Kaput, 2016). Though they are developing at various speeds and for different purposes, all of these artificial intelligence technologies strive to imitate human intellect in computers, making them "smart." For this reason, this type of intelligence is characterized by completeness, goals, timeliness, accuracy, precision, relevance, and usability of the data presented. It also helps managers formulate effective decisions and plans (Ganesh, 2020). According to Kumar and Bagga (2020), artificial intelligence (AI) is primarily based on obtaining information about customer wants, as well as their ideal attitudes and behaviors. It also looks for any alterations in the corporate environment that impact customers. Digital marketers anticipate customer needs better than anybody else, even if consumer behavior is usually highly complex and needs to be examined often. If the right AI techniques are used, consumer reaction analysis can be finished even further. Major challenges in the DA environment may generally be overcome as these technologies adapt to the dynamic changes encountered by digital media and provide real-time solutions to provide more promising outputs (Bhosale et al., 2020). AI can also gather marketing data from databases, stakeholders (including customers, employees, and suppliers), forums, and online methods (like social media and blogs) to supplement the processed data for strategic planning and decision-making. In this sense, business organizations' profitability and competitive advantage are doubled. AI helps businesses even more in anticipating and satisfying client wants. Due to their competitive position, they can also continue to process information more quickly and launch new goods and services that are either inexpensive or stand out from the competition (Weng, 2020). Considering this, the subsequent theory was put out.

Hypothesis 3: DA and AI have a substantial positive association.

Concerning Marketing Strategies and Artificial Intelligence: According to Slater et al. (2006), the MS formation is characterized by its precise visions, missions, and goals as well as its extensive alternative appraisal, scenario analysis, and strategy-building process. Thus, a corporation's industrial environment, market segmentation, and competitive positioning are linked to an MS (Tseng, 2016). If businesses want to endure, grow, and turn a profit, they also need to be aware of any prospective changes in both their internal and external surroundings (Rodgers, 2022). Therefore, obtaining, retrieving, assessing, interpreting, and forecasting data regarding the internal and external aspects of the company is often necessary while developing and executing an MS (Claver-Cortés et al., 2012). The AI capabilities are also necessary to permit MS development within a company. since MS is a widely used procedure in enterprises. Employing AI skills, a business can collect and examine the pricing and unique characteristics of comparable products and services provided by other parties to determine which market segments are best suited for CL and DF (Weng, 2021). Thus, it is necessary to gather and evaluate marketing data on cost analysis at all levels for a business to keep an accurate and competitive cost positioning. Considering the preferences and unique characteristics of the client (Mchergui, 2021). An organization needs to control its cost structure and differentiate its products to produce a unique product for competitive pricing.

Thus, the following hypotheses were put forth.

Hypothesis 4: Artificial Intelligence and CL strategy have a strong favorable association.

Hypothesis 5: A strong positive correlation exists between the DF approach and AI

Research Approaches: The current study looked at marketing strategies in SMEs that were affected by DA and subsequently mediated by AI. In this cross-sectional study, all the variables were investigated using a questionnaire with a five-point Likert-type scale as part of a quantitative research design to find out how the variables connected within the study's model. The marketing and IT managers of the SMEs that comprised the statistical population and operated in different parts of India were the key respondents. 300 questionnaires were distributed to collect the required data. 200 finished and valuable examples were gathered in the end for data analysis. The scales from the previous study were adjusted to measure the variables. The questionnaire utilized here consisted of four pieces: the first portion focused on the demographics of the respondents, while the other three questions were divided into categories: DA, AI, and MS. The Marketing Intelligence Survey Instrument (four items), the Standard Business Strategy Questionnaire (eight items), and the Digital Advertising Questionnaire (six items each) were utilized for this. Based on the information obtained, the data was analyzed using the SmartPLS program using the measurement model and structural equation modeling (SEM).

Findings: The associations between the research constructs were analyzed using SEM and the data that was gathered. The reliability test was given in its original form as examined using the partial least squares (PLS) regression technique.

Table 1: Measurement model (Reliability test)

Note: DA stands for digital marketing; AI for marketing intelligence; CL for cost leadership; DF for differentiation; CR for composite validity; and AVE for average variance retrieved.

Values for α, CR, and AVE are displayed in Table 1. The data collection instrument's statistical reliability is determined by the following: the α value must stay above 0.7, the CR value must be greater than 0.7, and the AVE value must be greater than 0.5. The aforementioned construct's validity and reliability were demonstrated by the statistically significant values.

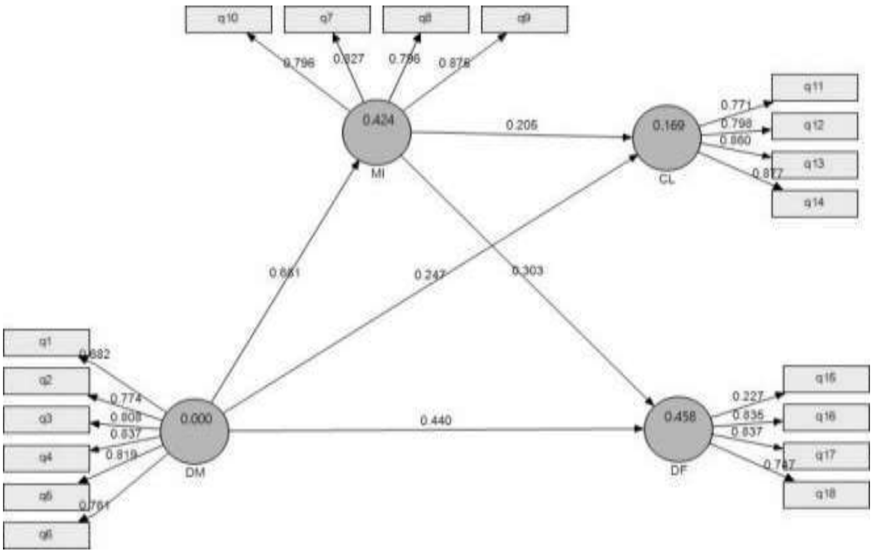
Table 2: Measurement model (Discriminant validity)

Variables	DA	AI	CL	DF
DA	0.781	-	-	-
AI	0649	0.823	-	-
CL	0.379	0.363	0.827	-
DF	0.593	0.569	0.562	0.707

Note: DF stands for differentiation; DA stands for digital marketing; AI for marketing intelligence; and CL for cost leadership.

The discriminant validity index, which validates the association between the variables, is shown in Table 2. The correlation value between the AVE square root and other factors ought to be greater. As a result, the top of the table displays the square root of the AVE in italics, signifying that the initial value in each column is greater than the subsequent values that satisfy the requirements of discriminant validity.

Structural Equation Modeling (SEM)

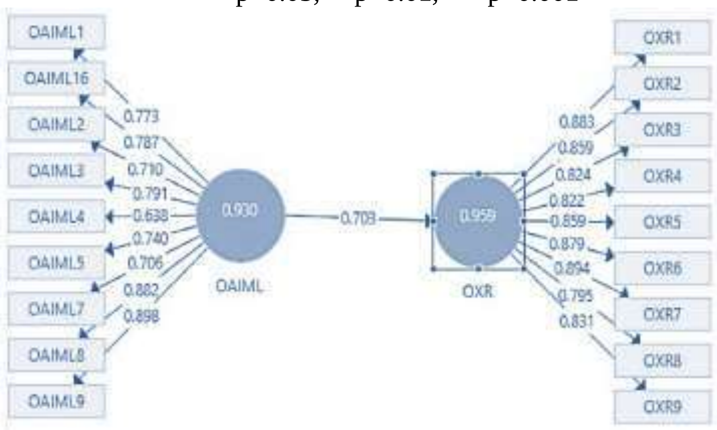


The study evaluated the interrelationships between the suggested model constructs by evaluating the hypotheses discussed in the preceding section. Subsequently, the bootstrap approach was employed for data analysis.

Table 3: Hypothesis testing (Direct relationships)

Paths	Path coefficients	t-value	p-value
DA CL	0.247	3.127	p<0.01
DA DF	0.440	7.520	p<0.001
DA AI	0.651	16.896	p<0.001
AI CL	0.205	2.104	p<0.05
AI DF	0.303	4.282	p<0.001

*p<0.05, **p<0.01, ***p<0.001



Note: DF stands for differentiation; DA stands for digital marketing; AI for marketing intelligence; and CL for cost leadership.

All of the OAIML and OXR sub-variable values are extremely high (greater than 0.7), which indicates a strong model according to Cronbach's alpha analysis. The criteria outlined in the previous model served as the foundation for the validation process. Because the sub-indicators of the aforementioned variables correlate with one another and with the sum of all the sub-indicators, the Cronbach's coefficient (0.93 for OAIML and 0.959 for OXR) indicates that our study is consistent. The researchers created a consistent regression model while keeping in mind that every requirement had been satisfied. The large standardized track coefficient (0.703) of the inner model indicates statistical significance. The opportunities made possible by AI and ML technologies in education have a substantial influence on the opportunities given by XR, so overall, OAIML has a major impact on the variable OXR. For any business or organization to create a successful marketing plan, HEI must thus integrate both AI and XR into the marketing process.

Conclusion:

This study looked into the connections between artificial intelligence and digital advertising and how those connections affect marketing strategy. Once the research hypotheses are verified, the findings of this study can help business managers and strategists understand how organizational capabilities—namely, DA and AI—interrelate with one another and how that affects the establishment of MS. The results of the study showed a strong correlation between the development of CL strategies and DA. According to Weng (2020), organizational qualities such as flexibility and optimality in terms of both time and cost were necessary for the implementation of the CL strategy to achieve operational efficiency. Furthermore, a strong positive correlation between the development of DA and DF strategies was noted. Additionally, the results of the study demonstrated a strong positive correlation between DA and AI. It was found that the network that AI was given had a major influence on business models and that, as objects became more intelligent and connected, there was a potential variation in the flow of information and operational resources, which in turn affected the micro-level interactions between business models. A strong positive correlation between DA and AI was also supported by the study's results. This strategy included internal documents, sales data from competitors, threats, dangers, and market opportunities in its established information-marketing infrastructure.

The study's conclusions therefore demonstrated that knowledge and AI enhance a business's success by increasing client acquisition and retention as well as MS, especially CL strategy. As with Kunle et al. (2017), who questioned if AI might help gain a competitive edge, the study's findings showed a strong positive correlation between AI and the formulation of DF strategy. Consequently, it was shown that AI may help a business improve its competitive edge, increase profits, and outperform the competition when applied properly. The Internet of Things components may perform three distinct tasks when combining products or services. Comprehending the transformative potential of the Internet of Things in terms of accomplishing specific corporate growth objectives was hence imperative. Even though this study has important implications for the development of multidimensional measurement of the characteristics inside a posited model, the validity of the research instrument could not be definitively validated based on a single study alone. To address this, it is suggested that marketing and IT managers of SMEs in Noida, India establish AI units and then collect, examine, and evaluate data about their surroundings, competitors, customers, suppliers, and various market trends in addition to possible future trends in the behavior of environmental and market elements. to identify potential and broaden the range of possibilities. These companies should be able to offer their products or services at a lower price than their competitors in the market by fully exploiting AI's capabilities. To assist the marketing and sales teams in developing unique and inventive concepts to set their products and services apart, it is also advisable to boost employee motivation in these departments.

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Exploring the impact of socio-economic status on mental health out comes of students in higher educational institutions

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Abstract:-

Youth is an important stage where revolutionary changes take place .Students studying in the higher educational institutions are of the age group18-25 tears They face a lot of mental health problems while they prepare themselves for their future life which in turn affect their academic achievement .

Mental health is a state of mental well-being that enables people to cope with stresses of life,realize their abilities ,learn well and work well and contribute to their community .It is an integral component of health that helps to build relationship ,make decisions and shape the c world we live in.Factors such as emotional skills ,substance use and genetics,exposure to unfavourrable social,economic,geographical and including poverty, violence,inequality and environmental deprivation increase mental health conditions. Social-economic status [SES] is one imponent for mental distress.

It includes not only income`, occupational prestige but also educational attainment, subjective perception of social status and social class Studiesd show the effect of SES on the academic achievement of the students, lack of access to the external resources and adaptability lead to low performance Students with low SES experienced anxiety had an affect on their academic achievement They also showed lack of adjustment capacities with thefriends and in the classroom.They share poor relationships with their parents bwhich affect their academic oerformance and their mental health also. Many factors like poverty, inadequate housing, dangerous neighbourhood competitions,pressure from family to secure good marks and do the best in academic performance and careers greatly effect their performance

Keywords- youth, mental health, socio-econouc status, poverty, academic,achievement, performance

Introduction:

According to Stanley Hall ‘’Adolescence is a period of stress ,strain,storm and strife’’.

It means that this age is full of crisises ands turbulences starting from 13-19 years .This age-group can also be college going students studying in higher educational institutions ..This is the time when young boys and girls feel the revolutionary changes in their life .On one hand where they are preparing themselves to shoulder new responsibilities on the other hand they face problems of mental health,the causes can be many like poverty , socio-economic status ,peer-pressure,anxiety, depression make their condition vulnerable

What is Mental Health:

Mental health is a state of mental well-being that enables people to cope with the stresses of life ,realize their abilities ,learn well and work well , and contribute to their community .It is an integral component of health and welkl -being that underpins our individual and collective abilities to make decisions and build relationships and shape the world we like ..Mental health is a basic human right.And it is crucial to personal, community and **social -economic development:**

Mental health conditions include mental health disorders and psycho social disabilities as bwell as other mental states, associated with significant distress , impairment in functioning or risk of self harm.People with mental health conditions are more likely to experience lower levels of mental well;-being ,but this is not always necessarily the case Determinants of Mental health may be factors as emotional skills,substance use and genetics .Exposure to unfavourable social.economic,geographical and environmental circumtances including poverty ,violence,inequality and environmental deprivation increase mental health conditions.

Socio-economic status:

Socio -economic status [SES] encompasses not only income but also educational attainment ,occupational prestige and subjective perceptionsof social status and social class .Social -economic status reflects the quality of life.attributes and opportunities afforded to people within society and is a consistent predictor of a vast array of psychological outcomes ..

Social -economic conditions have two aspects –

1]High social -economic status- High social economic status refers to the social and beconomic status of a family where the family has good and high social economic status means that the family is very well recognized in the society ,maintain their identity through their works ,have good financiastatus and the needs of the family members are easily fulfilled .

2]Low social -economic status- This refers to the status of a family who is not recognized well ,have low social -economic class which means that there could be financial problem and the needs of the family are seldom fulfilled.

Objective:

1) 1To learn abou t Mental health.
2) 2 To learn about the causes of mental health .
3) 3To learn about Social -economic status and its effect on students of Higher Educational institutions

Data and Methodology:

Data is collected from already published texts in the public domain .Literature sources can include text-books ,government and private companies reports ,online papers and articles.

Methodology:

Literary research is used Effects of Social -economic status on students of Higher educational institutions- Qualitative research conducted studied the effect of social class[SES]suggested that individuals of higher social class were more interested in work for personal satisfaction than those of low SES.

These findings imply that higher class individuals had better access to external resources ,higher levels of adaptrability within their careers than those of low social class and better self -concepts Bandura,Barbarannelli Caprara &Pastorelli analyzed the effects of SES on the academic achievement in children.SESwas found to have direct effecton academic achievement.

Studies showed that students experienced more anxiety thsan the high SES students which effect their academic performance where as high SES students experienced anxiety which affected their performance moderately..

Studies showed that low SES students expressed lack of adjustment capacities in the classroom and with friends which predisposal them to various anxiety provoki9ng behaviours..

Studies show that low SES families young boys and girls share a poor relationship with the parents which effect their mental health and ulkimately their academic performance. While considering varios occupational categories of parents , it was found that students being to the parents doing semi professional jobs experience more anxieties. Studies further show that poverty was considered as the single most important social problems faced by young generations lead to inadequate housing, dangerous neighbourhood, burdensome responsibilities and economic uncertainity.

It was also found that rapid changes in the life style,nuclear family system,more competitions in the academic achievements and carees lead to anxiety and it ultimatelt affects the academic performance. Studies show that in case of high SES groups students get pressures from families and societies to secure good percentage for getting admissions into the future course and to prove themselves better than others in this competitive exams greater academic anxiety band affects their performance

Results and Conclusions:

Students of higher educational institutions of the age group 18-25 years undergo a lot of revolutionary changes in their life where on one hand they prepare themselves to shoulder responsibilities ,on the other hand they face problems of mental health .The causes of mental health could be many but one most important factor behind is the Social-economic status which can affect the academic attainment, performance and achievement of the students of higher educational institutions..

This condition occurs if the student lacks appropriate family income, faces poverty low occupational prestige and subjective perceptions of social statusd and social class,lack of adjustment lead students to anxieties.

Studies also made it clear that rapid change in life style, nuclear family systems and competitions in the academic achievement and careers lead to anxiety and ultimatelyn affect academic achievement

Results also show that when students get pressures from the families and societies to secure good percentage and to prove themselves best than others greatly affect their academic performance.

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Detrimental Consequences of Human Activities onAvifauna in and Around Navegaon Nagzira Tiger Reserve District Gondia Maharashtra

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Abstract:

Aves provide several ecological services that eventually benefit human well-being. Ecosystem services provided by birds include seed dispersal, pollination, control of insect populations, and cleaning of the environment by acting as scavengers. The rapid growth of the human population negatively affects natural resources, and the environment. Human activities like habitat destruction, deforestation, urbanisation, pollution, global warming, and climate change push avifauna towards extinction. Climate change has a direct impact on biodiversity. Global warming caused by pollution and deforestation contribute to climate change. The environment is contaminated by industrial chemical residue, veterinary drugs, and agricultural pollutants, which causes the bird population to decline. Exposure to Pesticides, insecticides, rodenticides and anti-inflammatory drugs cause bird mortality, reduce fertility and eggshell thinning. The hunting and poaching of birds for their meat, feathers, or as pets can have detrimental effects on bird population. Birds can collide with man-made structures such as buildings, communication towers, wind turbines, and power lines. These collisions can result in injury or death for many bird species, especially those that are migratory or fly at night. Understanding the consequences of human activities on birds and their environment is crucial in the development of methods to minimise the negative effects. Conservation of bird diversity is crucial for maintaining the health of ecosystems and preserving global biodiversity.

Keywords – Birds, Habitat destruction**,** Climate change**,** Pollutant**,** Conservation**,** Extinction,NNTR

Introduction

Aves are group of warm-blooded vertebrates with feathers and wings for flight They are distributed all over the globe and play vital role in the stability of ecosystem. Birds provide various ecosystem services that are ecologically and economically important. Pollination is carried out by many nectar feeding species. Fruit-eater species of birds responsible for Seed dispersal by removing seeds from parent tree, increasing germination, enhancing economic production and maintaining biodiversity and community structure. Scavenging birds play an important role in Removal of carcasses, nutrient cycling, and prevent disease outbreak. Birds act as natural pesticides by Controlling insect populations and helps to increase crop yield. Birds provide a numerous key role in the ecological balance of resources in each habitat in the biosphere (Deng et. al. 2020).

Birds are excellent bio indicators of health of biodiversity as well as particular habitat and its productivity (Mekonen 2017). They are pollution sensitive and are used to monitor its impact on the ecosystem. birds also model for the study of the evolution of human language. These fascinating animals are facing an imminent threat of extinction due to human activities. Some of the main detrimental human activity on avifaunal habitats include habitat destruction, deforestation, urbanisation, pollution, global warming, and climate change. The environment is contaminated by industrial chemical residue, veterinary drugs, and agricultural pollutants, which causes the bird population to decline. Wild birds continue to be exposed to a variety of NSAIDs in the environment (S.R. de Solla et al 2023).

Loss of habitat or decline in habitat quality: climate change may affect the viability of the habitats that birds use, changing the timing and abundance of their food supplies and other resources (Crick 2004).

Climate change has a direct impact on biodiversity. In the few last centuries climate change is caused mainly by human activities. Global warming caused by pollution and deforestation contribute to climate change. Human activities altering the carbon cycle, greenhouse gases are emitted through human activities. Increase in the greenhouse gases cause increase in the temperature of earth atmosphere called global warming. Habitat destruction by urbanization, human centric development of highways and roads, industrialization and deforestation adversely affect bird diversity. Avian population decreases and extinctions may adversely affect ecological processes and services. Understanding the consequences of human activities on birds and their environment is crucial in the development of methods to minimise the negative effects.

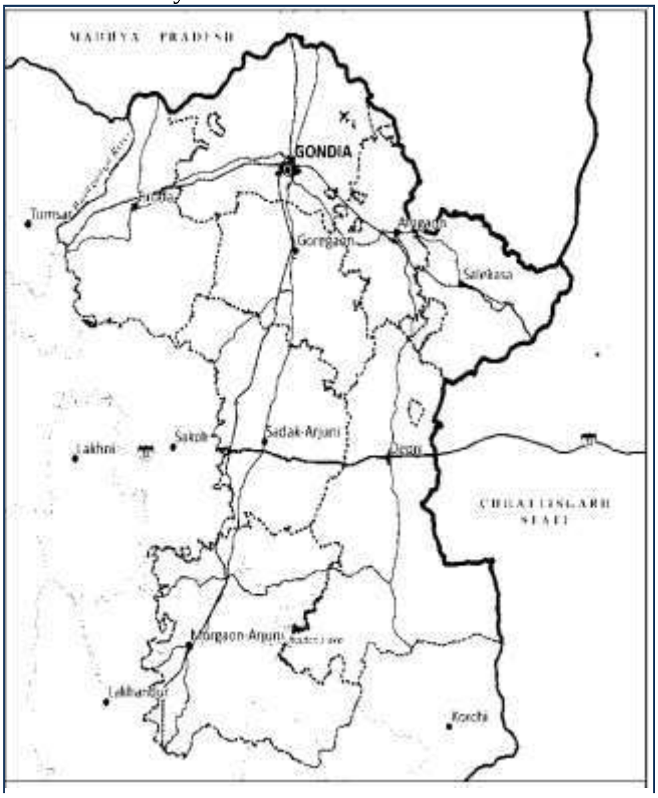
Material and Method:

Navegoan Nagzira Tiger Reserve (NNTR) is wildlife protected zone surrounded by lush green forest ideal for all kinds of fauna as habitat .Near to NNTR corridor adjacents to Navegoan village ata distance 5 km avitourism spot Navegaon Bandh is situated as potent sight for observation of winter migratory birds . Navegoan bandh act as astop over place fro many migratory birds during rainy, summer and winter season fro nesting, roosting and breeding. Estimated area cover spread over about 122766 hectares.

During our survey we monitor birds by direct count method and by line transect methods using Sonly Alpha 57 DSLR camera all along with 55-300 mm zoom lens . Similarly for direct observation on the bank of dams and tree , heroniarieis canopy we use Celestron 10 x 50 binocular for to count the number and nesting pattern of birds

As a preference time for visit we selected morning hours and evening hours as early in morning birds were more active and during evening hours most migratory birds try to get rest in their respective breeding or nesting grounds .Birds were consistently recorded and checklist were made by using Checklist of Ali. And Grimmet et al .(2001).

During observation we do also find anthropogenic activities which disturb the peace of nesting site of birds due to cross over interaction of humans in farm fields near by dams lead to air pollution by burning activities of dry husk and dry fodders of cattle and agricultural waste , simialarly we do found poaching of birds like poaching of pond herons as we found there dried skeleton and feathers in embankment of dams side.



(Courtesy: Google Map)

Observation:

Human activities include Habitat destruction and fragmentation, Deforestation, Urbanization, Pollution, Global Warming, Climate change, contamination of chemical pollutant, hunting and collision.

Habitat Destruction

Habitat loss and modification is associated with densification of humans and human activities. There is a clear inverse association between density of avian species and land cover by humans. Population growth leads to expanding human settlements, which raises demand for food, fuel, and building materials. Habitat destruction is mostly caused by human land exploitation and deforestation.

1 .Impact of Deforestation on Birds

Forest cover is largely lost through human activities such as converting land to agriculture and wood exploitation and, at the very least, by natural events such as fire and drought. The Fore

Reserve is under threat from encroachment and human activities such as unregulated logging, charcoal burning, and firewood collecting, while heavy cattle-grazing pressure negatively impacts the framework and regrowth of this forest. The forest plays a vital role in improving environmental quality by affecting the ecological balance and life support system. Forests prevent soil erosion, preserve soil fertility, save water, control floods and water cycles, and maintain an atmosphere with an appropriate balance of oxygen and carbon dioxide.

Human activities have caused fragmentation, degradation, and the decline of biodiversity rich forests, threatening the survival of avian species that depend on them. Deforestation cause habitat destruction and decline in food sources results in emigration, population reduction, lowering species richness of birds. The major consequence of habitat fragmentation and degradation is a reduction of avian population size and an increased vulnerability to extinction. An ecosystem services and the conservation value of remnant forests continues to decline. Deforestation causes a reduction in the removal of CO_2 from the atmosphere, which results in an increase in pollution and climate change. Climate change indirectly affect birds population.

2. Impact of Urbanization on Birds

The greater the population density in a place, the greater the need for buildings and infrastructure. Urbanisation will certainly expand as the human population grows, causing a threat to birds in cities. Due to urbanisation, the landscape became extremely fragmented, with portions with suitable bird habitat obstructed by roads and structures that frequently act as barriers. Birds are forced to adjust to the new conditions in order to live in the urban ecosystem. Local biodiversity declines drastically due to urbanisation. However, some species, like the house sparrow (Passer domesticus), seem to flourish in the city, some bird species are cosmopolitan and thus occur in cities across the globe. Due to urbanisation the species composition will change, with some species vanishing and others flourishing. Urban avoiders are species that disappear when a region is urbanized, whereas urban adapters manage to thrive in cities. Compared to nonurban ecosystems, urban regions have a lower total species richness. Environmental Factors Associated with Urbanization Affects Avifauna

a) Noise pollution

In a city setting, it might be challenging to locate an area with no noise. Exposure to noise in the urban environment can come from a variety of sources, including trains, planes, and road traffic as well as workplace noise exposure in industries. & construction sites. Bird vocal communication is affected by noise pollution. Noise pollution negatively affect selection of mate, territory defence and warning for predators. Loud noises from urban areas or industrial sites can disrupt nesting behaviour and lead to stress in birds. Bird courtship songs are being masked by low frequency urban noises; it adversely affects reproductive behaviour of avifauna.

b) Artificial Light.

Satellite photographs of the earth clearly show Artificial Light at Night. Artificial light had a deleterious impact on nighttime migratory birds' navigation and orientation. It can also disrupt natural behaviours such as feeding and mating. Plant photoperiodism, flowering, and physiology are also affected by light at night.

c) Human population

Human population has direct and indirect negative impacts on birds. The direct impact is Presence of humans, birds perceive humans as a threat, and encounters with humans are likely to stress birds, in particular during the breeding season. The increase in human population has been due to the improvement in health conditions and control of diseases. Population of urban areas is rapidly increasing due to migration from rural to urban areas for better economic opportunities, health and educational facilities.

The rapid growth of population, negatively affecting the natural resources and environment. Expanding population increase demand for food and raw material for commercial production. commercial exploitation for agriculture, fuelwood and timber harvesting and exploitation of land for buildings, roads and highways cause destruction of bird’s habitat. The environmental effects of population increase is due to increasing consumption levels of fuels like coal, oil and petroleum. These fuels' burning in industrial settings has been a significant cause of pollution.

d) Air Pollution, Global Warming and Climate Change

The rapid population growth and urbanization are responsible for increasing pollution. Burning of fossil fuels by automobile traffic, smoke from power plants, industries, and development projects are primary source of air pollution. The common air pollutants include carbon monoxide, Carbon dioxide, nitrogen dioxide, ozone, particulate matter, sulphur dioxide and lead. The increasing number of vehicles producing more air pollution and fuel consumption, Considerable amount of air pollution results from burning of fossil fuels. In birds, air pollution causes respiratory distress and illness, increased stress levels, immunosuppression, behavioral changes, and impaired reproductive success.

Burning of fossil fuels emits large amount of carbon-di-oxide into atmosphere and increases emission of greenhouse gases and leads to global warming. An optimum concentration of naturally occurring greenhouse gases in the Earth's atmosphere acts like blanket around earth and traps part of the sun's heat close to the Earth's surface. The Earth's temperature is maintained by this "greenhouse effect". Unfortunately, people have upset this natural equilibrium by emitting certain of these greenhouse gases, such carbon dioxide and methane. As a consequence, it appears that more solar energy is being trapped by the Earth's atmosphere, raising the planet's average temperature – a process known as global warming. Increasing pollution results in green house effects, global warming and climate change.

Impact of Climate Change on Birds

One of the main risk factors that might cause bird species to completely go extinct is climate change. climate change in breeding areas and less flexibility of species to adapt to changes lead to a higher threat potential for migrants. The populations of birds are also negatively impacted by modifications to the wintering or migratory settings. Additionally, increased extreme weather events are having a negative impact on bird species throughout the nesting season. The sustainability of the habitats that birds use may be impacted by climate change, which may alter the timing and amount of their food supply and other resources. If birds cannot adapt to climate change or find new niches. They will experience population decreases and may even be in danger of becoming extinct.

Effect of Pesticides and Industrial Chemicals on Birds

Contamination of Environment by agricultural chemicals, Veterinary medicines and industrial chemical residue results in rapid declining of avian population. Exposure to Pesticides, insecticides, rodenticides and anti-inflammatory drugs cause bird mortality, reduce fertility and eggshell thinning.

Agriculture and sewage effluents containing pesticide such DDT and other organochlorines runoff into the water bodies and have caused rapid population declines. Biomagnification of DDT in birds results in decreased reproduction due to eggshell thinning and egg crack prior to hatching. Diclofenac is anti-inflammatory drug used as Veterinary medicines shows toxic effects on scavenging birds. Population of Gyps vulture in south Asia declined due to secondary exposure to Diclofenac. Scavenging birds consuming animal carcasses contaminated with anti- inflammatory drug such as diclofenac results in renal failure, liver damage and reduce egg shell thickness. NSAIDs (Non-Steroidal Anti-Inflammatory Drugs) reduce eggshell thickness through cyclooxygenase inhibition, which suppresses prostaglandin synthesis and reduces the calcium available for the mineralization of eggshell.

Hunting and Poaching

The hunting and poaching of birds for their meat, feathers, or as pets can have detrimental effects on bird populations, particularly for species that are already endangered or vulnerable. Hunting of birds can indeed pose a threat to wildlife, If bird hunting is not regulated properly, it can lead to overharvesting of certain bird species. This can result in population declines, and in some cases, it can push species towards endangerment or extinction.

Collisions:

Birds can collide with man-made structures such as buildings, communication towers, wind turbines, and power lines. These collisions can result in injury or death for many bird species, especially those that are migratory or fly at night. Birds may collide with windows, glass facades, and other reflective surfaces of buildings. They do not perceive glass as a barrier and can fly into it, leading to injuries or fatalities. Tall communication towers, especially those with guy wires and lighting, can attract migrating birds. Birds can collide with these structures, particularly during poor visibility conditions like fog or low cloud cover. Wind turbines, particularly those in areas with high bird populations, can pose a threat to birds if not properly sited and designed. Birds may collide with the rotating turbine blades

Conclusion

Human activities can have significant and varied effects on bird populations. One of the most significant negative impacts of human activities on birds is the destruction and fragmentation of natural habitats. Urbanization, agriculture, and industrial development can lead to the loss of important breeding and foraging grounds for birds. This can result in habitat loss and reduced nesting and feeding opportunities for many bird species. Pollution from various sources, including industrial discharge, agriculture runoff, and urban runoff, can contaminate water bodies and food sources for birds.

Polluted water can harm bird species that rely on aquatic ecosystems, while contaminated food can affect the health and reproduction of birds. Light pollution from streetlights, buildings, and other sources can disorient nocturnal birds, affecting their migration and navigation patterns. It can also disrupt natural behaviors such as feeding and mating. Illegal hinting and bird collisions are also a concern for conservationists, and efforts are being made to mitigate the risks. Conserving bird diversity requires a holistic and collaborative approach, involving governments, non-governmental organizations, local communities, and the general public.

By protecting bird species and their habitats, we contribute to the overall health and resilience of ecosystems worldwide.

Conservation efforts, public awareness, such as the creation of protected areas, habitat restoration, and the banning of harmful pesticides, climate change mitigation, monitoring and research and policy and legislation can help preserve and restore bird habitats and populations.

Table 1. Checklist of common bird found during survey.

Sr.No	Order	Family	Common Name	Scientific Name
1	Galliformes	Phasianidae	Indian Peafowl	*Pavo cristatus*
			Red Spurfowl	*Galloperdix spadicea*
2	Anseriformes	Anatidae	Lesser whistling duck	*Dendrocygna javanica*
			Indian Spot-billed Duck	*Anas poecilorhyncha*
3	Podicipediformes	Podicipedidae	Little Grebe	*Tachybaptus ruficollis*
4	Falconiformes	Falconidae	Peregrine Falcon	*Falco peregrinus*
		Accipitridae	Brahminy Kite	*Haliastur indus*
			Black Kite	*Milvus migrans*
5	Columbiformes	Columbidae	Common Pigeon	*Columba livia*
			Laughing Dove	*Stigmatopelia senegalensis*
			Spotted Dove	*Stigmatopelia chinensis*
			Red Collared Dove	*Streptopelia tranquebarica*
			Eurasian Collared Dove	*Streptopelia decaocto*
6	Psittaciformes	Psittacidae	Rose-ringed Parakeet	*Psittacula krameri*
			Plum-headed Parakeet	*Psittacula cyanocephala*
7	Strigiformes	Strigidae	Barn Fish Owl	*Ketupa zeylonensis*
			Brown Wood Owl	*Strix leptogrammica*
			Spotted Owlet	*Athene brama*
8	Apodiformes	Apodidae	Asian Palm Swift	*Cypsiurus balasiensis*
			Little Swift	*Apus affinis*
9	Upupiformies	Upupidae	Common Hoopoe	*Upupa epops*
10	Coraciformes	Coracidae	Indian Roller	*Coracias benghalensis*
		Alcedinidae	Common Kingfisher	*Alcedo atthis*
11	Passeriformes	Aegithinidae	Common Iora	*Aegithina tiphia*
		Corvidae	House Crow	*Corvus splendens*
			Indian Jungle Crow	*Corvus culminatus*

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E-Commerce Evolution and the Future of Business: A Comprehensive Analysis

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Abstract

Significance of e-commerce in modern business, shedding light on its transformative influence across various dimensions of commerce. In an era where digital connectivity has become ubiquitous, e-commerce stands as a pivotal force, redefining traditional business paradigms. The paper delineates the crucial aspects that render e-commerce indispensable in the contemporary business landscape. The global reach of e-commerce is examined as a catalyst for market expansion, allowing businesses to transcend geographical constraints and access diverse consumer bases. The perpetual accessibility provided by e-commerce platforms, operating 24/7, is highlighted for its contribution to heightened customer convenience and increased sales. The cost-efficiency of e-commerce, stemming from reduced reliance on physical storefronts, is elucidated as a key driver for competitiveness in pricing. Furthermore, the paper delves into the data-driven insights generated by e-commerce platforms, emphasizing their role in empowering businesses with actionable information about consumer behavior and preferences. The ability of e-commerce to deliver personalized customer experiences is explored as a cornerstone for fostering brand loyalty and encouraging repeat transactions.

Introduction:

Background of e-commerce:

In business traces its origins to the late 20th century, with the advent of the internet and the subsequent evolution of digital technologies. The journey of e-commerce involves several key **milestones:**

Emergence. The foundation of e-commerce was laid with the development and widespread adoption of the internet in the 1990s. The internet provided a global platform for information exchange, paving the way for electronic transactions and online business activities. In 1994, a landmark moment occurred when a certain Dan Kohn facilitated the first online transaction by selling a Sting CD to a friend through a secure payment system. This event marked the practical initiation of e-commerce.

Introduction of Secure Online Payment Systems:

The development of secure online payment systems, such as PayPal in the late 1990s, addressed concerns about the safety of online transactions. This boost in payment security was instrumental in fostering trust among consumers and businesses. The background of e-commerce in business traces its origins to the late 20th century, with the advent of the internet and the subsequent evolution of digital technologies. The journey of e-commerce involves several key milestones:

Evolving E-Commerce Models:

E-commerce models diversified beyond traditional retail, encompassing business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C) transactions. Various niches, such as online travel agencies and digital marketplaces, emerged.

Mobile Commerce (m-commerce):

The proliferation of smartphones in the 2000s led to the rise of mobile commerce. E-commerce platforms adapted to mobile interfaces, enabling users to shop conveniently through their smartphones.

Social Commerce Integration:

The integration of social media into e-commerce platforms marked the advent of social commerce. Businesses leveraged social networks for marketing, customer engagement, and even direct sales.

Technological Advancements:

Ongoing technological advancements, including artificial intelligence, machine learning, and augmentedreality, have continued to shape and enhance the e-commerce experience. These technologies contribute to personalization, efficient logistics, and improved customer service.Today, e-commerce has become an integral part of the global business landscape, continuously evolving as technology advances and consumer behaviors change. It has not only revolutionized the way businesses operate but has also transformed the shopping habits and expectations of consumers worldwide.

Current status of e-commerce in business

E-commerce has sustained its upward trajectory, with a significant share of retail transactions occurring online. The COVID-19 pandemic further accelerated the adoption of e-commerce as lockdowns and social distancing measures prompted more consumers to turn to online shopping.

Diversification of E-Commerce Models:

E-commerce has diversified beyond traditional retail, with the growth of various models including B2B, B2C, C2C, and direct-to-consumer (D2C) approaches. Niche markets and specialized platforms continue to emerge.

Global Market Reach:

E-commerce enables businesses to reach a global audience, facilitating cross-border transactions. International e-commerce has become more accessible, allowing businesses to expand beyond their domestic markets.

Technological Advancements:

Ongoing advancements in technology, including artificial intelligence (AI), machine learning, and augmented reality, are being integrated into e-commerce platforms. These technologies enhance personalization, optimize logistics, and improve the overall customer experience.

Social Commerce Integration:

Social commerce continues to play a significant role, with businesses leveraging social media platforms for marketing, brand promotion, and direct sales. Social networks are increasingly integrated into e-commerce strategies.

Supply Chain Challenges:

E-commerce faces challenges related to supply chain management, particularly in terms of logistics, fulfillment, and inventory management. Businesses are exploring innovative solutions to enhance efficiency in these areas.

Data Security and Privacy:

With the increasing volume of online transactions, there is a heightened focus on data security and privacy. E-commerce businesses are investing in robust cybersecurity measures to protect customer information.

Sustainability and Ethical Practices:

There is a growing awareness of sustainability and ethical practices in e-commerce. Consumers are increasingly conscious of the environmental impact of their purchases, prompting businesses to adopt eco-friendly initiatives.

Competition and Market Consolidation:

The e-commerce sector is marked by intense competition, with both established players and startups vying for market share. Market consolidation through mergers and acquisitions is also a notable trend.

In summary, the current status of e-commerce in business is characterized by growth, technological innovation, and adaptation to changing consumer expectations. The industry is dynamic, with ongoing developments in response to market trends and external factors.

Significance in modern business

E-commerce holds its transformative impact on various aspects of commerce. It facilitates global reach, enhances customer experiences, and reshapes traditional business models. The key significance of e-commerce in modern business includes:

1. Global Market Reach:

E-commerce enables businesses to transcend geographical boundaries, reaching a global audience. This expanded market reach allows companies to tap into diverse consumer bases and explore international opportunities.

2.24/7 Accessibility:

Unlike traditional brick-and-mortar stores, e-commerce platforms operate 24/7, providing customers with continuous access to products and services. This accessibility enhances convenience for consumers, leading to increased sales and customer satisfaction.

3. Cost-Efficiency:

E-commerce reduces the need for physical storefronts, minimizing overhead costs associated with rent, utilities, and staff. This cost-efficiency benefits both businesses and consumers, often resulting in more competitive pricing.

4. Data-Driven Insights:

E-commerce platforms generate vast amounts of data related to customer behavior, preferences, and purchasing patterns. This data can be leveraged through analytics to gain valuable insights, enabling businesses to make informed decisions and tailor offerings to meet customer demands.

5. Personalized Customer Experiences:

E-commerce allows businesses to implement personalized marketing strategies based on customer data. This customization enhances the overall customer experience, fostering brand loyalty and encouraging repeat purchases.

6. Diversification of Revenue Streams:

Online platforms enable businesses to diversify their revenue streams through various channels, such as direct sales, affiliate marketing, and third-party collaborations. This flexibility contributes to financial stability and resilience.

7. Innovative Business Models:

E-commerce facilitates the emergence of innovative business models, such as subscription services, drop shipping, and digital marketplaces.

These models often disrupt traditional industry norms, fostering creativity and adaptability.

8. Mobile Commerce Advancements:

With the proliferation of smartphones, mobile commerce (m-commerce) has gained prominence. E-commerce platforms optimized for mobile devices provide seamless shopping experiences, catering to the increasing number of consumers who prefer mobile transactions.

9. Supply Chain Optimization:

E-commerce necessitates efficient supply chain management to meet the demands of online customers.Businesses often optimize logistics, inventory management, and order fulfillment processes to ensure timely deliveries and customer satisfaction.

10. Adaptation to Changing Consumer Behavior:

E-commerce has evolved in response to changing consumer preferences and behaviors. The ability to adapt quickly to trends, technology, and market dynamics positions e-commerce as a crucial component of modern business strategies

Future prospects of e-commerce

Point toward continued evolution and innovation in upcoming business, which will be driven by emerging technologies and changing nature of consumer behaviours. Key trends and possibilities include:

1.Personalised Shopping Experiences:

Future e-commerce platforms are likely to leverage advanced data analytics, AI, and machine learning todeliver highly personalized shopping experiences. Tailored product recommendations, customized marketing, and individualized interfaces will enhance customer engagement.

2. Integration of Voice Commerce:

Voice-activated devices and virtual assistants are expected to play a more prominent role in e-commerce.Voice commerce, facilitated by technologies like natural language processing, will enable users to make purchases and interact with e-commerce platforms using voice commands.

3. Augmented Reality (AR) and Virtual Reality (VR):

AR and VR technologies will revolutionize the way consumers shop online. Virtual try-ons, interactiveproduct demonstrations, and immersive shopping experiences will become more prevalent, providing a new dimension to e-commerce.

4. Sustainable and Ethical E-Commerce Practices:

Consumers' increasing focus on sustainability and ethical practices will drive e-commerce businesses toadopt environmentally friendly measures. From eco-friendly packaging to transparent supply chains, sustainability will become a competitive differentiator.

5. Enhanced Payment Solutions:

The evolution of payment technologies, including block chain and cryptocurrency, may impact how transactions are conducted in e-commerce. Faster, more secure, and decentralized payment solutions could reshape the financial landscape of online transactions.

6. E-Commerce in Emerging Markets:

E-commerce will continue to expand into emerging markets, providing access to a growing number of consumers. Mobile-first strategies and innovative solutions tailored to the unique challenges of these markets will be crucial for success.

7. Collaboration with Social Media:

Social commerce will deepen its integration with e-commerce platforms. Social media networks will become more transactional, allowing users to discover, share, and purchase products directly within these platforms.

8. Advancements in Logistics and Fulfillment:

Efforts to address challenges in logistics and fulfillment, such as last-mile delivery and sustainable shipping practices, will see continuous innovation. Robotics, drones, and automation will likely play a more significant role in optimizing supply chain processes.

9. Regulatory Frameworks and Compliance:

E-commerce businesses will navigate evolving regulatory landscapes, addressing issues related to consumer protection, data privacy, and cross-border transactions. Compliance with international standards will be crucial for global operations.

10. Continuous Adaptation to Consumer Behaviors:

E-commerce platforms will need to remain agile in adapting to shifting consumer behaviors and preferences. Staying attuned to trends and swiftly incorporating feedback will be essential for long-term success.

E-commerce serves as a catalyst for innovation in business:

Fundamentally reshaping traditional models and fostering a dynamic environment conducive to creative solutions. Its impact extends across various dimensions, influencing how businesses operate, interact with customers, and deliver value.

E-commerce compels businesses to undergo digital transformation, integrating technology into all facets of operations. This shift fosters innovative approaches to customer engagement, data analytics, and process optimization.

The direct interaction between businesses and consumers in the online space necessitates a customer-centric approach. E-commerce platforms continually innovate to enhance user experiences, offering personalized recommendations, seamless interfaces, and efficient customer support. It generates vast amounts of data regarding customer behavior, preferences, and purchasing patterns. Businesses leverage this data to gain valuable insights, driving informed decision-making and enabling the development of targeted, data-driven strategies.

The demand for swift and efficient order fulfillment in e-commerce prompts innovations in supply chain management. Businesses explore automation, robotics, and real-time tracking to optimize logistics and streamline operations.

E-commerce platforms often pioneer the integration of emerging technologies, such as artificial intelligence (AI), augmented reality (AR), and virtual reality (VR). These technologies enhance product visualization, recommendation systems, and overall shopping experiences. It breaks down geographical barriers, providing businesses with access to a global market. This expanded reach encourages companies to innovate in areas like cross-border logistics, language localization, and culturally tailored marketing strategies. The prevalence of mobile commerce (m-commerce) has pushed businesses to innovate in mobile interfaces, payment solutions, and user experiences.

Mobile apps and responsive design have become essential components of e-commerce innovation. E-commerce constantly adapts to changes in payment technologies. The adoption of diverse payment options, including digital wallets and cryptocurrencies, reflects the industry's commitment to innovative financial solutions.

Consumer behavior and expectations regarding e-commerce:

Future of e-commerce is intricately linked to the changing landscape of consumer behavior and expectations. As technology becomes more integrated into daily life, consumer Future consumers anticipate personalized shopping experiences. E-commerce platforms will leverage advanced analytics and artificial intelligence to understand individual preferences, delivering tailored product recommendations, promotions, and user interfaces.

Expectations include more immersive and interactive online shopping experiences. Augmented reality (AR) and virtual reality (VR) technologies will likely play a pivotal role, allowing consumers to virtually try products before making purchase decisions.

A growing awareness of environmental issues will influence consumer choices. Expectations will tilt towards e-commerce platforms and brands adopting sustainable practices, eco-friendly packaging, and transparent supply chains. With the continued prevalence of smartphones, consumers will increasingly expect a seamless mobile shopping experience. Consumers are likely to continue seeking social validation and engagement in their shopping experiences. Trust will remain a critical factor in e-commerce. Consumers will expect robust cybersecurity measures, secure payment options, and transparent data practices to safeguard their personal information. Future consumers will demand more flexibility in payment options. The rise of voice-activated devices will influence consumer behavior. E-commerce platforms will need to integrate voice commerce capabilities, allowing users to make purchases through voice commands and interactions. Responsive and adaptive customer support services will be crucial. Consumers will expect efficient problem resolution, proactive communication, and personalized assistance, contributing to a positive overall shopping experience.

Conclusion:

In conclusion, the future of e-commerce holds exciting possibilities shaped by technological advancements, consumer demands, and global market dynamics. Businesses that embrace innovation, sustainability, and customer-centric strategies are likely to thrive in the evolving e-commerce landscape. Also, the significance of e-commerce in modern business lies in its ability to create new opportunities, streamline operations, and enhance customer interactions, making it an indispensable element for companies striving for competitiveness and growth in the digital era.

E-commerce serves as a powerful catalyst for innovation, propelling businesses to rethink traditional approaches, embrace technological advancements, and prioritize customer-centric strategies in the pursuit of sustained growth and competitiveness. Future businesses operate in a rapidly changing landscape, necessitating agility and responsiveness to market trends. Continuous innovation is essential to stay ahead of competitors and meet evolving customer expectations.

Also, the future of e-commerce will be shaped by consumer expectations leaning towards personalized, sustainable, and technologically enriched experiences. E-commerce businesses that successfully anticipate and meet these evolving expectations will thrive in the competitive landscape of tomorrow.

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Industry 4.0: A Management Accounting Perspective on Opportunities and Challenges

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Abstract

The steady evolution of last three industrial revolutions over 200 years led the world to witness the advancement of digitalization, which has given rise the rapid development of noble technologies referred to as Industry 4.0 "Fourth Industrial Revolution" The globe has seen the progressive development of digitalization over the past 200 years, which has led to the rapid development of noble technologies known as Industry 4.0, or the "Fourth Industrial Revolution," a term primarily coined by the German government. (Hofmann and Rüsch, 2017; Dalenogare et al., 2018; Liu and Xu, 2017). In the context of management accounting practice, this article seeks to critically analyze the possible effects of Industry 4.0 on the environment, manufacturing, and circular economy. It also explores the opportunities and challenges those nations and organizations may face in the future competitive business environment.

Key Facts:

Industry 4.0, management accounting. Management accounting and Industry4.0 Understanding industry 4.0's possible effects on manufacturing, the environment, and the circular economy via the lens of management accounting is crucial since cost accounting plays a key role in organizational decision-making. We'll talk about Industry 4.0 potential and problems in the section that follows.

Manufacturing and management accounting

Since the beginning of Industry 1.0, mass production and commercial trade have complicated the link between management accounting and manufacturing, with a focus on the development of methods necessary for reliable information to support organizational decision-making (Burns et al. 2013). According to academics and professionals, cost information analysis is essential.

Nixon and Burns (2005), postulated the integration of "knowledge economy" with the emergence of "Big Data" and "Cloud Computing" will allow the organization to control intellectual capital and gain in-depth information about the product lifecycle. Hence, the intellectual capital and knowledge management will create opportunity allowing management accounting techniques to deliver continuous improvement from more accurate and relevant costing information on raw material, labor, overhead, activities and processes whether fixed or variable.

Environment and management accounting

The concept of eco-efficiency through sustainable development was popularized for integrating assessment of financial performance and corporate environment in the field of management accounting (Huppes and Ishikawa, 2005; Ciroth, 2009) despite receiving limited attention (Figge and Hahn, 2013). Porter and Linde (1995), accentuated pollution equates to economic waste which is caused by the ineffective, inefficient and incomplete use of environmental resources, therefore, hidden costs from wasted resources are buried throughout the product's life cycle.

Burritt and Christ (2016), postulated Industry 4.0 represents a future vision in combining advanced technologies from improved digitalization to create opportunities through the development of smart objects such as IoT, iOS, CPS and ICT potentially enhance environmental accounting to have timely accurate, reliable, comparable data, furthermore, reduce the problem of green wash and brown wash which traditionally has been locked environmental accounting disclosure and minimized the discretion of management.

For example, in Industry 4.0 smart objects will transform invisible and poor-quality data surrounding environmental economic impact and cost of sales into visible and accurate insights, in support of Material Flow Cost Accounting ISO 14051 through monitoring physical material, environmental resources and energy flow in real time to reduce environmental waste and material loss from actual and predicted inefficiencies linking economic and environmental performance (Lee et al. 2014). Eleven contributing critical success factors (CSF) were identified by Jabbour et al. (2018) in the context of competition and resource constraints to create synergy between Industry 4.0 and environmentally friendly manufacturing.

These technologies work in tandem with CSF to create green products, manufacturing processes, and supply chains, thus realizing the full potential of ecologically sustainable production. Recently, Koilo (2019) highlights capability of smart technologies through exchanging and communicating autonomous information in manufacturing science to reduce carbon emission, natural resource consumption and waste generation along with ICT in order to maintain consistency between economic and sustainable development. Thus, Industry 4.0 not only allows companies to achieve greater economic performance in future but also to have environmental efficiency through creating sustainable value to offer a stable and secure society.

Accounting for the circular economy and management the term "circular economy" (CE) refers to a new way of thinking about business that aims to support society in their transition to sustainable materials and energy sources. Because of the linear economy's "take, make, use, and dispose" mentality, resources are losing value in the contemporary system. Industry 4.0 is predicted to usher in new technology, nullifying constraints related to uncertainty. Businesses will be able to follow their products after consumption in order to retrieve important components according to the idea of IoT (Jabbour et al. 2018).

The idea of CE will enable management accountants' clients (companies) to function profitably and competitively in the context of industry 4.0. According to Suwaldiman (2005), management accounting is shifting from a cost-focused approach to one that creates value by emphasizing human resources (HR) and how they might work with CE. According to Hopper et al. (2007), "getting user connected"—as opposed to "getting things right"—is the key to management accountants creating value.

The impact of emerging technologies on management accounting, such as 3D printing, Maglev, fuel cells, and robotic vehicles, is highlighted by Ratnatunga (2015), who also explains how this will result in a general decrease in the variable expenses and increase the company's ability to recycle garbage by connecting it to CE. The primary tenets of Industry 4.0 and CE, according to Stock and Seliger (2016), are that these technologies enable enterprises to practice sustainable operations management and contribute to significant value chains.

The Resolve architecture, as outlined by Jabbour et al. (2018), would enable decision-makers to modify their course of action as they gear up for Industry 4.0's data-driven revolution. Organizations may choose to implement Industry 4.0-related new technologies by using the Resolve framework as a guide. Tracing, tracking, packaging, and other facets of the product life cycle would be impacted by the framework.

Potential issues associated with Industry 4.0 the nascent notion of Industry 4.0, which revolves around "self-awareness, self-prophesying, self-comparison, and self-maintenance," holds immense promise and advantages. Nevertheless, it is imperative to delineate possible obstacles or hindrances that nations or establishments might face concerning its assimilation and execution. Since the idea's inception, the capital-intensive market has been the primary focus of Industry 4.0 adoption; thus, big industrial firms have the potential to serve as a driving force behind the growth of environmental management accounting, while at first, smaller and medium-sized businesses (SME) disregarded the amount of money needed to acquire these technologies (Burritt and Christ, 2016).

The importance of providing employees with the knowledge and abilities to embrace Industry 4.0 technologies in order to comprehend and handle complex data in environmental management accounting was highlighted by Jabbour et al. (2018). The low cost of labor causes industrial firms in developing nations to invest cautiously or belatedly in computerization and other technology, which is one of the biggest growth challenges for these firms (Castellacci, 2008).

Moreover, when comparing the capital structure of developed and emerging nations, the manufacturing company's supply chain becomes less cohesive. Major obstacles to the implementation of Industry 4.0 technologies, as noted by Dalenogare et al. (2018), are caused by a lack of R&D investments, political and economic uncertainties, and subpar educational and research institutions. According to Burns et al. (2013), adopting cloud computing services from third parties raises concerns about security, data protection, privacy, and reliance on the service to safeguard important corporate information.

Conclusion

The development of Industry 4.0 and its possible impact on cost management strategies in management accounting are described in this study. Within the framework of management accounting practice, inferential analysis of opportunities and problems has been pulled from the manufacturing, environmental, and circular economy domains.

Innovation in data collection, processing, and improved predictive analytics has surged with Industry 4.0. In their quest of cost reduction and decision-making, management accountants will profit from all of these. Manufacturing, which is the foundation of a successful business cycle, will be significantly impacted by Industry 4.0.

This futuristic vision for automated manufacturing is expected to have a significant impact on environmental accounting, which in turn will improve waste management—a concept closely linked to sustainability and the circular economy. Companies could apply the Resolve framework to address issues arising from the implementation of Industry 4.0 new technologies. A few years from now, Industry 4.0 will become commercially viable, and management accountants will need to adapt accordingly to deal with this revolutionary shift.

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Dynamics of Immigration, Refugees, Race, and Nation: An In-depth Analysis with Reference to India

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Abstract:

This research paper delves into the intricate interplay of immigration, refugees, race, and nation, with a specific focus on the Indian context. As one of the world's most populous and diverse nations, India provides a fascinating backdrop for examining the multifaceted dimensions of these interconnected phenomena.

The paper begins by exploring the historical underpinnings of immigration in India, tracing patterns from colonial times to the present day. It investigates the impact of globalization, economic shifts, and geopolitical factors on the ebb and flow of migratory movements within and across India's borders. Key drivers, such as employment opportunities, educational pursuits, and familial reunification, are scrutinized to unravel the complex motivations behind immigration. Addressing the refugee crisis becomes imperative, particularly in light of global conflicts and environmental challenges. The research scrutinizes India's response to refugee influxes, both from neighboring countries and further afield.

The legal frameworks, humanitarian efforts, and socio-political ramifications of hosting diverse refugee populations are examined to provide a comprehensive understanding of India's role in this global challenge. Race, as a social construct, plays a significant role in shaping the immigrant experience. This paper investigates how notions of race intersect with immigration patterns in India, affecting both internal migration and the integration of diverse communities. The analysis considers how racial identities influence access to resources, socio-economic opportunities, and societal acceptance, contributing to the broader discourse on social justice and equality. The concept of nationhood is explored within the context of India's rich cultural tapestry. The paper scrutinizes the evolving narrative of nationalism, emphasizing inclusivity amidst India's linguistic, religious, and ethnic diversity.

It probes the tensions between a pluralistic national identity and exclusive ideologies, shedding light on how immigration and refugee movements challenge prevailing notions of belonging and citizenship. This research paper aims to contribute nuanced insights into the entwined issues of immigration, refugees, race, and nation, offering a comprehensive understanding of their impact on India's socio-political landscape. Through a multidisciplinary approach, this study navigates historical, legal, and sociocultural dimensions, providing a valuable resource for scholars, policymakers, and advocates seeking to comprehend and address the complexities of migration in the Indian context.

Keywords: Immigration, Refugees, Race, Nation, India, Globalization, Refugee Crisis, Social Justice, National Identity, Pluralism, Citizenship.

Introduction

In the contemporary global landscape, issues surrounding immigration, refugees, race, and nation have garnered significant attention due to their intricate interplay and profound implications on societies worldwide. This paper aims to delve into the complex dynamics of these interconnected themes with a specific focus on India, a nation with a rich tapestry of cultural, ethnic, and religious diversity. Immigration and refugee movements have been integral components of human history, driven by various factors such as economic opportunities, political instability, conflict, and environmental crises. In recent decades, globalization and advancements in transportation and communication have facilitated unprecedented levels of migration, leading to the emergence of multicultural societies characterized by diverse racial and ethnic compositions. India, with its vast geographical expanse and heterogeneous population, stands as a microcosm of the complexities inherent in managing immigration and refugee influxes. Historically, India has been a destination for diverse migrant groups, ranging from traders and invaders to refugees fleeing persecution and conflict.

The partition of British India in 1947 resulted in one of the largest forced migrations in history, leading to the displacement of millions along religious lines. Moreover, India has also witnessed internal migration on a massive scale, with rural-to-urban migration being a significant phenomenon driven by factors such as uneven regional development, agricultural distress, and the pursuit of better livelihood opportunities in urban centers. These migration patterns have contributed to the socio-cultural fabric of Indian society, shaping its identity and demographic landscape. However, alongside the narrative of migration as a catalyst for diversity and cultural enrichment, India, like many other nations, grapples with issues of racial and ethnic discrimination, marginalization, and xenophobia. Despite constitutional provisions guaranteeing equality and non-discrimination, instances of racial profiling, hate crimes, and systemic biases persist, highlighting the entrenched nature of racial prejudices within society.

Furthermore, the question of national identity and belonging becomes particularly salient in the context of immigration and refugee flows. Debates surrounding citizenship, assimilation, and cultural pluralism underscore the tension between inclusivity and exclusivity in defining the contours of the nation-state. In India, contentious issues such as the Citizenship Amendment Act (CAA) and the National Register of Citizens (NRC) have sparked debates about citizenship rights, religious identity, and the exclusionary implications for marginalized communities. Against this backdrop, understanding the dynamics of immigration, refugees, race, and nation in India necessitates a multidimensional analysis that considers historical legacies, socio-economic structures, political ideologies, and cultural discourses.

This paper seeks to engage with these complex dynamics through a critical examination of pertinent literature, policy frameworks, and empirical evidence, with the aim of elucidating the evolving nature of identity, belonging, and social cohesion in India's pluralistic society. In conclusion, as India navigates the challenges and opportunities presented by migration and diversity, a nuanced understanding of the dynamics of immigration, refugees, race, and nation is indispensable for fostering inclusive societies and promoting social justice and harmony. By unpacking these complexities, this research endeavors to contribute to ongoing discourses on migration governance, multiculturalism, and nation-building in the Indian context.

1. Historical Overview of Immigration and Refugees in India

India, with its vast geographical expanse and rich cultural heritage, has a long history of immigration and refuge, shaped by a myriad of factors including economic opportunities, political turmoil, and social upheavals. This historical overview sheds light on the significant waves of immigration and refugee influxes that have shaped the demographic and cultural landscape of the Indian subcontinent over the centuries.

2.1 Ancient Migrations:

The history of immigration in India dates back to ancient times when various tribes and groups migrated across the Indian subcontinent, contributing to the diversity of its population. The Aryans, believed to have migrated from Central Asia around 1500 BCE, settled in the northwestern regions of the Indian subcontinent, laying the foundation for Vedic civilization. Similarly, the Dravidian people, indigenous to the Indian subcontinent, inhabited the southern regions, showcasing the early patterns of migration and settlement.

2.2 Medieval Period:

During the medieval period, India witnessed significant migrations due to the expansion of empires, trade routes, and religious movements. The arrival of Arab traders along the western coast led to the establishment of thriving port cities and the spread of Islam in India. Subsequent invasions by Turkic and Afghan rulers, such as the Delhi Sultanate and the Mughal Empire, brought waves of immigrants who settled in various parts of the subcontinent, leaving a lasting impact on its culture, language, and architecture.

2.3 Colonial Era:

The colonial era marked a significant shift in India's immigration patterns, with the arrival of European traders, missionaries, and colonial administrators. The Portuguese, Dutch, French, and British established trading posts and colonies along the coasts, attracting immigrants from Europe, Africa, and other parts of Asia. The British Raj, in particular, facilitated large-scale migration from different regions of the Indian subcontinent to meet the labor demands of colonial industries, railways, and plantations.

2.4 Partition and Independence:

The partition of India in 1947, resulting in the creation of India and Pakistan, led to one of the largest mass migrations in human history. Millions of Hindus, Muslims, and Sikhs were displaced, triggering communal violence and humanitarian crises on both sides of the newly drawn borders. The traumatic aftermath of partition continues to shape inter-communal relations and refugee policies in India to this day.

2.5 Post-Independence Period:

Since gaining independence in 1947, India has remained a destination for immigrants and refugees fleeing political persecution, economic hardship, and conflicts in neighboring countries. The influx of Tibetan refugees following the Chinese occupation of Tibet in 1959, the Sri Lankan Tamils during the civil war in Sri Lanka, and the Rohingya Muslims escaping persecution in Myanmar are notable examples of refugee movements that have impacted India's demographic landscape.

2.6 Contemporary Immigration Trends:

In contemporary times, India continues to attract immigrants from neighboring countries such as Bangladesh, Nepal, Afghanistan, and Myanmar, seeking economic opportunities and asylum. The globalization of labor markets, coupled with India's growing economy, has led to the influx of skilled workers, students, and professionals from around the world, contributing to the country's cultural diversity and economic development.

2. **Immigration and Refugee Dynamics in Contemporary India:**

In contemporary India, immigration and refugee dynamics play a crucial role in shaping the social, economic, and political landscape. The country's strategic location, economic opportunities, and historical ties make it a magnet for migrants and refugees from neighboring countries and beyond. This paper explores the multifaceted dimensions of immigration and refugee dynamics in contemporary India, analyzing their impact on society, governance, and identity.

3.1 Immigration Trends:

India has a long history of immigration, with diverse communities settling in different parts of the country over centuries. In recent decades, globalization, liberalization, and rapid urbanization have accelerated immigration trends, attracting skilled professionals, laborers, students, and entrepreneurs from various parts of the world. The influx of immigrants, particularly from neighboring countries such as Bangladesh, Nepal, and Sri Lanka, has contributed to the country's cultural diversity and labor force.

3.2 Economic Drivers:

Economic opportunities play a significant role in driving immigration to India. The country's burgeoning economy, characterized by sectors such as information technology, manufacturing, and services, attracts professionals seeking employment and entrepreneurial ventures. Additionally, India's demographic dividend and growing consumer market make it an attractive destination for foreign investors and businesses, further fueling immigration trends.

3.3 Challenges and Opportunities:

While immigration brings economic benefits and cultural exchange, it also poses challenges related to social integration, labor market competition, and urban infrastructure strain. Issues such as undocumented migration, human trafficking, and exploitation of migrant labor highlight the need for comprehensive immigration policies and effective governance mechanisms. However, immigrants also contribute to India's socio-economic development, innovation, and cultural vibrancy, enriching the country's social fabric.

3.4 Refugee Dynamics:

India has a long-standing tradition of providing refuge to persecuted individuals and communities. The partition of India in 1947 and subsequent conflicts in neighboring countries led to the displacement of millions, shaping India's refugee policies and humanitarian commitments. Tibetans, Afghans, Sri Lankans, Rohingyas, and Bhutanese refugees are among the various communities that have sought asylum in India over the years.

3.5 Challenges in Refugee Management:

India's approach to refugee management is characterized by ad-hocism and lacks a comprehensive legal framework. While the country hosts a significant refugee population, their legal status remains ambiguous, leading to challenges in accessing basic rights such as education, healthcare, and employment. Furthermore, issues related to security concerns, border management, and diplomatic relations with neighboring countries often complicate refugee management efforts.

3.6 Humanitarian Imperatives:

Despite the challenges, India's humanitarian tradition underscores its commitment to providing shelter and support to those fleeing persecution and conflict. Civil society organizations, non-governmental organizations, and international agencies play a crucial role in complementing government efforts in refugee assistance, advocacy, and resettlement programs. However, there is a growing need for enhanced collaboration between state and non-state actors to address the complex needs of refugees and ensure their rights and dignity are upheld.

3. Race and Ethnicity in India

India stands as a unique tapestry of race and ethnicity, woven intricately over millennia of historical, cultural, and social interactions. Unlike Western notions of race, which often revolve around skin color, the Indian context presents a complex interplay of factors such as religion, language, caste, and regional identities. This essay aims to explore the multifaceted dimensions of race and ethnicity in India, shedding light on its historical roots, contemporary manifestations, and societal implications.

4.1 Historical Context:

India's rich history has been marked by migrations, invasions, and interactions with various civilizations. From the ancient Indus Valley civilization to the Mauryan and Gupta empires, India has been a melting pot of diverse cultures and ethnicities. The Aryans, Dravidians, Persians, Greeks, Mughals, and British, among others, have left enduring imprints on India's ethnic mosaic. These interactions have shaped the cultural, linguistic, and genetic diversity of the Indian subcontinent, laying the foundation for its complex racial landscape.

4.2 Caste System and Ethnic Diversity:

Central to the understanding of race and ethnicity in India is the caste system, a hierarchical social structure that categorizes individuals based on birth and occupation. While caste is primarily a social construct, it intersects with notions of race and ethnicity, influencing social interactions, access to resources, and opportunities. The caste system encompasses thousands of endogamous groups, each with its own customs, rituals, and occupational roles, contributing to the diversity of ethnic identities within India.

4.3 Religious Diversity:

India is home to several major religions, including Hinduism, Islam, Christianity, Sikhism, Buddhism, and Jainism, as well as numerous indigenous faiths and sects. Religious identities often intersect with ethnic and regional affiliations, shaping individuals' sense of belonging and cultural practices. Religious diversity adds another layer to India's racial tapestry, influencing social relations, political dynamics, and intergroup interactions.

4.4 Regional Identities:

India's vast geographical expanse encompasses diverse landscapes, climates, and cultural traditions, leading to the emergence of distinct regional identities. North India, South India, East India, West India, and the Northeast each have their own languages, cuisines, festivals, and historical legacies. These regional identities play a significant role in shaping people's sense of belonging and cultural affiliations, contributing to the richness of India's ethnic diversity.

4.5 Contemporary Dynamics:

In contemporary India, globalization, urbanization, and technological advancements have led to increased mobility and intercultural exchanges. Urban centers serve as melting pots of cultures, bringing together people from diverse backgrounds and fostering cosmopolitan identities. However, globalization also poses challenges to traditional ethnic boundaries, leading to debates about cultural homogenization versus cultural preservation.

4.6 Societal Implications:

The complexity of race and ethnicity in India presents both challenges and opportunities for societal cohesion and inclusion. On one hand, diversity enriches the social fabric, fostering tolerance, cultural exchange, and innovation. On the other hand, ethnic tensions, discrimination, and identity-based conflicts continue to pose challenges to social harmony and national integration. Addressing these challenges requires a nuanced understanding of India's racial dynamics and concerted efforts to promote equality, justice, and mutual respect across diverse communities.

4. Nation-Building and Identity Politics

India, with its rich tapestry of cultures, languages, and religions, grapples with the intricate interplay of immigration, refugees, race, and nation-building. The influx of immigrants and refugees, coupled with existing racial diversity, poses significant challenges to India's nation-building project and fuels identity politics. This paper seeks to explore these dynamics in depth, shedding light on the complexities of Indian identity formation amidst diverse population movements.

5.1 Historical Context:

India's history is replete with instances of migration and refugee influx, shaping the contours of its national identity. From ancient times to the colonial era, waves of migration have contributed to the country's cultural mosaic. The partition of British India in 1947 resulted in one of the largest forced migrations in history, leading to the displacement of millions and the creation of India and Pakistan. Subsequent conflicts, such as the 1971 Bangladesh Liberation War, further exacerbated refugee flows into India, particularly in Border States like West Bengal and Assam.

5.2 Governmental Policies:

The Indian government has grappled with managing immigration and refugee influx while maintaining national cohesion. Policies such as the Citizenship Amendment Act (CAA) have sparked debates over the inclusion and exclusion of certain religious groups, raising questions about the secular fabric of the nation. The National Register of Citizens (NRC) in Assam exemplifies attempts to address illegal immigration, but its implementation has been marred by controversies and allegations of exclusion based on ethnicity and religion.

5.3 Societal Attitudes:

Societal attitudes towards immigration, refugees, and race in India are multifaceted, reflecting a complex interplay of historical legacies, economic concerns, and cultural perceptions. While India prides itself on its tradition of hospitality ('Atithi Devo Bhava'), tensions often arise over issues of assimilation, cultural preservation, and resource allocation. Discrimination based on race and ethnicity persists in various forms, exacerbating social divisions and complicating nation-building efforts.

5.4 Contemporary Challenges:

In the contemporary context, India faces mounting challenges in navigating the complexities of immigration, refugees, race, and nation-building. Rapid urbanization, economic disparities, and political polarization exacerbate existing fault lines, posing formidable obstacles to social cohesion and inclusive development. The rise of identity-based politics further complicates efforts to forge a unified national narrative, as competing visions of India's identity vie for prominence.

5. Case Studies:

Migration has been a defining feature of human history, shaping societies and cultures across the globe. In recent decades, the phenomenon of immigration and refugee movements has gained increasing attention due to its profound implications for social, economic, and political systems. India, with its vast geographical expanse and diverse population, has been both a host and a source of migration, reflecting a complex interplay of factors such as colonial legacies, economic disparities, and geopolitical tensions. Against this backdrop, this paper seeks to analyze the dynamics of immigration, refugees, race, and nation in India through a series of case studies.

6.1 Rohingya Refugees in India:

The Rohingya refugee crisis, originating in Myanmar, has led to a significant influx of Rohingya Muslims into India, particularly in states like West Bengal and Assam. Despite facing persecution and violence in their home country, Rohingya refugees in India encounter numerous challenges, including lack of legal recognition, limited access to basic services, and discrimination based on ethnicity and religion. Their presence has sparked debates around issues of citizenship, national security, and humanitarian obligations, highlighting the complexities of refugee protection and the tensions between national sovereignty and international obligations.

6.2 North-Eastern Migrants in Metropolitan Cities:

The North-Eastern states of India, with their distinct cultural identities and geographical isolation, have witnessed significant outmigration of youth to metropolitan cities like Delhi, Mumbai, and Bangalore in search of better educational and employment opportunities. However, North-Eastern migrants often face racial discrimination and stereotyping due to their physical appearance and cultural differences. Incidents of violence and harassment against North-Easterners underscore the deep-seated prejudices and ethnocentrism prevalent in Indian society, raising questions about inclusivity and social cohesion in a diverse nation.

6.3 Bangladeshi Migrants in Assam:

The issue of illegal Bangladeshi migration into the northeastern state of Assam has been a contentious issue, fueling ethnic tensions and political mobilization along linguistic and religious lines. The National Register of Citizens (NRC) exercise aimed at identifying undocumented migrants has further exacerbated anxieties and fears among both indigenous Assamese communities and Bengali-speaking settlers. The complex interplay of historical grievances, demographic changes, and political opportunism has complicated efforts to address the underlying causes of migration and promote peaceful coexistence.

6. Policy Implications and Recommendations

In recent years, India has witnessed significant dynamics in immigration, refugees, race, and nation-building. This paper aims to provide an in-depth analysis of these dynamics and offer policy implications and recommendations to address the challenges and opportunities they present.

7.1 Policy Implications

Integration Policies:

India needs comprehensive integration policies to assimilate immigrants and refugees into society while preserving their cultural identities. These policies should focus on providing language and vocational training, access to education and healthcare, and employment opportunities.

Anti-Discrimination Legislation:

Implementing robust anti-discrimination laws is essential to combat racial prejudice and ensure equal rights and opportunities for all citizens, regardless of their race, ethnicity, or immigrant status. Stringent enforcement mechanisms should be established to hold accountable those who perpetrate discrimination.

Refugee Protection Mechanisms:

India should strengthen its refugee protection mechanisms by ratifying international conventions such as the 1951 Refugee Convention and its 1967 Protocol. This would ensure that refugees receive adequate legal protection, access to essential services, and opportunities for resettlement or integration.

Border Management:

Effective border management is crucial to address the challenges associated with irregular migration and human trafficking. India should invest in advanced surveillance technologies, enhance cooperation with neighboring countries, and streamline immigration procedures to prevent illegal entry while facilitating legal migration.

Community Engagement and Empowerment:

Promoting inter-community dialogue and fostering a sense of belonging among immigrants and refugees is vital for social cohesion. Government initiatives should encourage community participation in decision-making processes and promote cultural exchange programs to bridge divides and foster understanding.

7.2 Recommendations

Policy Coordination and Collaboration:

There is a need for greater coordination and collaboration among various government agencies, civil society organizations, and international partners involved in immigration and refugee issues. Establishing a centralized authority or task force to oversee policy development and implementation can facilitate effective governance.

Investment in Infrastructure and Resources:

Adequate investment in infrastructure and resources, such as housing, healthcare facilities, and educational institutions, is essential to accommodate the needs of growing immigrant and refugee populations. Public-private partnerships can be leveraged to mobilize resources efficiently.

Capacity Building and Training:

Training programs should be conducted for law enforcement officials, immigration officers, and social workers to sensitively address the unique challenges faced by immigrants and refugees. This includes cultural competency training, language interpretation services, and trauma-informed care.

Promotion of Diversity and Inclusion:

Government initiatives should celebrate India's diversity and promote inclusion through multicultural education, awareness campaigns, and affirmative action policies. Recognizing and valuing the contributions of immigrants and refugees to the nation's cultural and economic fabric is essential for fostering social cohesion.

Research and Data Collection:

Continuous research and data collection are necessary to understand the evolving dynamics of immigration, refugees, race, and nation-building in India. This information can inform evidence-based policymaking and enable policymakers to address emerging challenges effectively.

Conclusion

In conclusion, the dynamics of immigration, refugees, race, and nation in India present a complex interplay of historical, socio-economic, and political factors. Through an in-depth analysis, it is evident that immigration and refugee movements have been integral to India's history, shaping its cultural landscape and socio-political fabric. The influx of refugees, whether due to conflicts in neighboring regions or economic disparities, has posed challenges while also enriching the nation's diversity.

Race, although a contentious concept in the Indian context cannot be overlooked in discussions of immigration and nationhood. Caste, ethnicity, and religious identity often intersect with discussions of race, highlighting the intricate layers of identity politics in the country. Discrimination and marginalization based on race or ethnicity persist, underscoring the need for inclusive policies and social initiatives to address these disparities. Furthermore, the notion of nationhood in India is deeply intertwined with narratives of unity in diversity. Despite facing challenges of communal tensions and regional conflicts, the country's commitment to pluralism remains a defining feature.

However, there is a constant need for policy reforms and social initiatives to ensure that the rights and dignity of immigrants, refugees, and marginalized communities are upheld. In moving forward, it is imperative for India to adopt a holistic approach that recognizes the contributions of immigrants and refugees while safeguarding the rights of all citizens. This requires fostering greater inclusivity, promoting dialogue across diverse communities, and addressing underlying socio-economic inequalities. By doing so, India can harness the potential of its diversity as a source of strength and resilience in an increasingly interconnected world.

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Causes of Rising Agricultural Product Price in India

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Abstract:

India is a largest populated city around the world and more people depend on agriculture sector. India is developing country. So in India economic growth depend on Industrial development and other sector growth but they are very slow that time agricultural sector play a very important role. Agriculture is the largest sector in India especially in rural areas. About 72 percent of people's lives in rural areas. Nearly 70 percent of people are dependent on agriculture sector. Indian agriculture sector production basically depend on rain. And due to the global warming they're very uncarting. At a global level India is the world's largest producer of milk, pulses and jute. India has got a Second rank in production of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton Agriculture field contributes in the Gross Domestic Product (GDP).

Agriculture sector generate employment at rural area. Indian agriculture developed after green revolution, white revolution, yellow revolution and blue revolution. India got a second rank worldwide in farm outputs. As per the Indian economic survey 2020 -21, agriculture employed more than 50% of the Indian workforce and contributed 20.2% to the country's GDP. Same time this sector hve face storage problems and good return earning problems. Agriculture Sector face the several challenges. They affect directly and indirectly the Indian Economy. For developed Indian economy it is very necessary to improve this condition and dissolve the farmer's problems

Key words: Agriculture, global, India, Gross Domestic Product, employment, challenges, Economy

Introduction –

India's population rapidly growing. The resulting increase in the demand for food will need to be met through higher agricultural productivity in food imports. India has a large agricultural sector. India has the second largest area of arable land in the world and is a major producer of a number of agricultural products. India overtook the United States as the world's largest producer of milk and is also a major producer of pulses. India is a major producer country of buffalo-milk, bananas, paddy rice, cow milk, wheat, sugarcane, fresh vegetables, cotton lint, potatoes etc.

The nature of Indian agriculture is steadily domestic demand driven and it may accelerate in the coming future. The agricultural diversification in cropping pattern is basically driven by the commercialization of agriculture market since economic reform. Green Revolution revolutionized the agriculture food production in India. National Agricultural Research System (NARS) play the important role for Strengthened and production growth. All India Coordinated Research Projects (AICRPs) and State Agricultural Universities were initiated for the agricultural development with the Indian Council of Agricultural Research (ICAR). The research institutes on rice, jute and sugarcane, established in the pre-independent India, were brought under the purview of ICAR in 1966. After the establishment of AICRPs in 1967 research on other crops was carried out.

For achieving sustained agricultural growth of 4%, India further expanded NARS in 1977-93 and Directorate and National Research Centers on some selected crops were established to give research inputs. Currently, the crop-based research is being carried out by 28 national institutes including one deemed-to-be-university. They also play very important role for success the agricultural sector and encourage the farmers.

Objectives –

1. The main objective of this research is to study the causes for rising Agricultural product price in India.
2. To study the Causes of rising Agricultural product price in India

Research methodology -

This research is a descriptive study. Research papers, News papers, Websites, Journals, Magazines, Articles are used for collecting the information and data for complete the research. Mostly secondary data are used for research.

The current scenario -

Historically agriculture is the most important sector of the Indian economy. The agriculture industry contributes to around 16.5% of India's GDP. In 2022, the Indian agriculture market value stood at USD 435.9 billion and is expected to reach USD 580.82 billion by 2028, growing at a CAGR of around 4.9% between 2023 and 2028. Government's focus on the agriculture sector and argotic platforms and innovation in this sector continually. Agriculture sector achieved steady growth with improvement in many aspects.

Causes of rising Agricultural product price in India –

Environmental, economic, institutional, and technological challenges faced agriculture sector. So that time they reason the agricultural food product price. They are as below.

- **Climate uncertainty –**

In current era climate continuously change so Indian agriculture faced the environmental challenges like Climate change, unpredictable monsoons, water scarcity, soil degradation, and loss of biodiversity all contribute to the uncertainties of the agricultural sector. The increasing frequency of extreme weather events disrupts crop cycles and reduces overall productivity.

- **Lack of finance –**

Capital is most important factor for developed any sector especially in agriculture sector. Finance issues affected on Indian agriculture as well as Farmers with low income levels, lack of access to credit, and market volatility due to the absence of fair pricing mechanisms.

- **Problem of Institution –**

Inefficient and outdated institutional frameworks also the most important causes of agricultural progress in India. Inadequate land reforms, complex land ownership regulations, land tenure systems make it difficult for farmers to access and utilize land effectively.

- **Problem of Technology –**

Efficient production factor including technology play very important role. The outdated knowledge of the technological creates many problems for Indian agriculture. Outdated farming practices and limited adoption of modern technologies resulted low productivity. The absence of mechanization, inadequate irrigation systems, and lack of access to quality seeds and fertilizers further contribute to technological stagnation.

- **Effect of Increased Prices for Feed** –

Due to several problems of feed produced demand they increasing that time high price of the food grain. So that time peoples reducing the purchasing of the food produced.

- **Uneducated knowledge about government policy** –

Government had made many policies for developed the agriculture sector. But many farmers are not aware about government policy agriculture related. So that time they are not take any benefit for protection and improving production.

- **Entrepreneur view of the people specially farmers –**

Climate uncertainty, lack of finance arability, lack of knowledge about government policies so peoples especially farmers are not motivate for accepted the agricultural work in field. To change the farmers view are very important. Entrepreneur view of the people improves the quantity of production and decrees the price of agriculture production.

Conclusion:

For developed the Indian economy it's very important change the view of farmers, peoples and government. Agriculture sector highly contributed in Gross Domestic Product. Naturally Indian agriculture field take the advantaged for improving the production quantity and quality.

And the main reasons for high price of the agriculture food production many natural reasons and government policy so improvement in agricultural sector and stability in agriculture food production price depends on government policy.

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संशोधन पध्दती संख्यात्मक संशोधन आणि गुणात्मक संशोधन यांचा संशोधन कार्यात उपयोग

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गोषवारा :

मानवी जीवनाच्या प्रक्रियेमध्ये संशोधनाला सर्वाधिक महत्व आहे. संशोधन हे सतत चालणारी प्रक्रिया आहे. संशोधनामुळे मानवाला, देशाला, राष्ट्राला विविध समस्या आव्हाने सोडवता आली. व संशोधनामुळे नवीन माहिती जगासमोर आली व त्यातुन नवनवीन शोध लागुन विविध क्षेत्रात प्रगती करता आली आहे. संशोधन ही निरंतर चालणारी प्रक्रिया आहे. कोणत्याही चांगल्या संशोधनात निरिक्षित घटनेचा अर्थ, घटनेमागील कारणमीमांसा यांची माहिती घेण्याचा प्रयत्न संशोधनात केला जातो. एखाद्या समस्येबद्दल माहिती पध्दशीरपणे जमा करणे, त्यांचे योग्यप्रकारे व्यवस्थापन करणे आणि जमा केलेल्या संकलितमाहितीचे तर्कशुध्दरीत्या अर्थनिर्वचन हे अपेक्षित असते. संशोधन कार्यात विविध बाबींचा वापर केला जातो. संशोधन पध्दती, तंत्र, संशोधन प्रकार, संशोधन साधने, संख्यात्मक संशोधन, गुणात्मक संशोधन, संशोधन लेखन व इतर अनेक बाबींचा उपयोग संशोधन कार्यात केला जातो.

प्रस्तावना :

आजचे युग हे विज्ञान युग आहे. विज्ञानाच्या प्रगतीची जाणीव पदोपदी व्हावी इतके विज्ञान सामान्य जीवनाशी जाऊन भिडले आहे. विविध नवीन तंत्रज्ञानाच्या साहाय्याने देशामध्ये नवीन बदल घडवून आणले जात आहे. हे सर्व बद्दल घडवण्यासाठी संशोधन कार्याचा खुप मोठा उपयोग होतांना दिसत आहे. संशोधनाच्या कार्यामुळे नवनवीन शोध लागत आहे. विविध क्षेत्रातील माहिती जगासमोर आन्याचे काम संशोधक, शास्त्राज्ञ करीत आहे. संशोधन कार्यासाठी संशोधकाला विविध साहित्याचा, पुर्व गत संशोधनाचा विविध तंत्राच्या उपयोग संशोधनासाठी करावा लागतो. संशोधन म्हणजे काय, संशोधनाचे कार्य संशोधन पध्दती, संशोधनाचे प्रकार, संशोकधनासाठी लागणारे साधने यांचा अभ्यास या पेपर मध्ये करण्यात आला आहे.

संशोधनाचा अर्थ :

संशोधन या मराठीतील शब्दाचा अर्थ सं+शोधन याचा अर्थ शोध घेणे, चौकशी करणे काळजीपूर्वक तपास करून सत्यशोधन्याचा शास्त्रीय प्रयत्न करणे असा होतो. शोध या शब्दासाठी इंग्रंजीत Discovery आणि Invention हे दोन शब्द वापरले जातात. या दोन्हीचा अर्थ शोध लावणे असा होत असला तरी त्यामध्ये फरक आहे. जी वस्तु अस्तित्वात आहे पण इतरांना माहिती नसते, अशी वस्तु शोधून काढणे यास Discovery असे म्हणतात. तर जी वस्तु अस्तित्वात नाही व इतरांनासुध्दा माहित नाही. अशी वस्तु नव्याने शोधून काढणे यास Invention असे म्हणतात.

इंग्रजी व्युत्पत्तीचा अर्थ : संशोधनासाठी इंग्रजीत Research हा शब्द वापरला जातो. या शब्दाची Re+Search अशी विभागणी केली असता त्याचा Re - पुन्हा, पुन्हा, Search- शोध घेणे, Research - पुन्हा-पुन्हा शोध घेणे.

व्याख्या :

1. **ऑक्सफोर्ड डिक्शनरी :** तथ्यांचा बारकाईने शोध घेण्यासाठी शास्त्रशुध्द पध्दतीने केलेला अभ्यास म्हणजे संशोधन होय.
2. **जे. डब्ल्यु बेस्ट :** खऱ्या अर्थाने संशोधन म्हणजे वैज्ञानिक पध्दती प्रत्यक्षात कार्यान्वित करण्याची अधिक नियमबध्द, आकारबध्द, सुव्यवस्थित व सखोल अशी प्रक्रिया होय.

संशोधन पध्दती: संशोधनाची उदिष्टे, माहिती संकलनांची साधने, संशोधनाचे क्षेत्र इत्यादीनुसार संशोधन पध्दती ठरते. संशोधन समस्या निश्चित झाल्यानंतर त्यानुसार संशोधनासाठी संशोधन पध्दतीची निवड करावी लागते. भुतकाळातील घटनांचा अर्थ लावण्यासाठी ऐतिहासिक संशोधन पध्दती, वर्तमानकालीन घटनांचा अर्थ लावण्यासाठी सर्वेक्षण पध्दती व दोन चलांमधील कार्यकारण संबंधाचे मापन करण्यासाठी प्रायोगिक संशोधन पध्दती निवडण्यात येते. वरील पध्दतीचा संशोधन कार्यासाठी उपयोग करण्यात येतो.

ऐतिहासिक संशोधन पध्दती :

भुतकाळातील घटनांचा अभ्यास ऐतिहासिक संशोधन पध्दतीमध्ये केला जातो. मनुष्य पूर्वीच्या

अनुभवातुन वर्तमानातील समस्या दूर करू शकतो. मानवी जीवनाच्या विविध्, क्षेत्रांची संबंधित भुतकाळालीन घटनांची माहिती पुराव्यांच्या आधारे वस्तुनिष्ठ पध्दतीने मांडण्यांचे कार्य ऐतिहासिक संशोधन पध्दतीतून केले जाते.

ऐतिहासिक संशोधनाच्या व्याख्या :

कार्लिंगर : "ऐतिहासिक संशोधन म्हणजे गतकालीन घटनांचे विकासाचे व अनुभवांचे सुक्ष्म अन्वेषण ज्यामध्ये भुतकाळातील माहितीचे संतुलित व यथार्थ विवेचन व त्याचे काळजीपुर्वक केलेले परीक्षण सम्मेलित असते." "ज्या पध्दतीचा अवलंब केल्याने इतिहासाची यथार्थ ओळख होते. त्या पध्दतीला ऐतिहासिक संशोधन पध्दती असे म्हणतात."

प्रायोगिक संशोधन पध्दती : Experimental Research Method.

प्रायोगिक संशोधन पध्दती ही वैज्ञानिक पध्दती असुन ती भविष्यकाळाशी निगडित असते. दोन किंवा अधिक चलांमध्ये कार्यकारण संबंध आहे किंवा नाही हे या पध्दतीतून सिध्द होते. प्रयोग हे प्रायोगिक पध्दतीचे प्रमुख वैशिष्टे आहे. या पध्दतीत संशोधक कमीत कमी एका स्वाधीन चलाची हाताळणी करतो आणि स्वाधीन चलाचा एक अथवा अनेक आश्रित चलांवर होणाऱ्या परिणामांचे निरीक्षण करणे.

प्रयोग म्हणजे काय?

चैपियन : नियंत्रित परिस्थितीत केले गेलेले निरीक्षण म्हणजे प्रयोग होय.

प्रायोगिक पध्दतीच्या व्याख्या :

एडवर्ड : "जेव्हा एखाद्या संशोधन समस्येच्या संदर्भात एक अध्ययन कर्ता काही चलांवर नियंत्रण ठेवतो अथवा चलांमधील बदल स्थापित करतो त्यास प्रायोगिक संशोधन म्हणतात."

ज्या संशोधन पध्दतीत वैज्ञानिक आपल्या प्रयोगशाळेत विशिष्ट परिस्थितीत अपेक्षित निरीक्षण मिळतात की नाहीत हे पाहुन शास्त्रीय सत्य जगासमोर ठेवतो तसेच प्रयोगकर्ता घटकांच्या बाबतीत स्वत:सक्रीय भाग घेत असतो. त्या पध्दतीस प्रायोगिक संशोधन पध्दती म्हणतात.

प्रायोगिक संशोधनाची वैशिष्टे :

1) **नियंत्रण :** प्रायोगिक पध्दतीत विविध चलांवर नियंत्रण ठेवले जाते. चलांवर नियंत्रण ठेवण्यासाठी जैविक गुणधर्मांचा विचार करुन समाज करणे, बाह्य चलांवर नियंत्रण ठेवणे आवश्यक असते.
2) **यादृच्छिकरण :** प्रयोगासाठी दोन्ही गटातील विद्यार्थी / व्यक्ती यादृच्छिक पध्दतीने समान निवडण्यात. त्यामुळे बाह्य चलांचा दोन्ही गटांवर सारखाच प्रभाव असल्याने योग्य निष्कर्ष प्रयोगातून मांडता येतात.
3) **चलांची हाताळणी :** प्रयोगिक पध्दतीत चलांची काळजीपूर्वक हाताळणी केली जाते.
4) **कार्यकारणभाव :** योग्य पध्दतीने प्रयोग केल्यानंतर एखाद्या परिणामाचे निश्चित कारण कोणते याची निश्चिती या पध्दतीतून करता येते.
5) **निरीक्षण :** निरीक्षण हा प्रयोगाचा आत्मा आहे. प्रायोगिक पध्दतीत स्वाश्रची चलाचा आश्रयी चलावर होणारा परिणाम निरीक्षणातून जाणून घेतला जातो.
6) **पुनरावृत्ती :** प्रयोगाची वारंवार पुनरावृत्ती करुन प्रायोगिक पध्दतीत निष्कर्षाची वैधता व विश्वसनीयता ठरविली जाते.

सर्वेक्षण पध्दत / वर्णनात्मक संशोधन पध्दती:

भारतातील विविध विद्यापीठातून होणारी संशोधने सर्वाधिक प्रमाणात सर्वेक्षण पध्दतीची आहे वर्तमानकालीन सद्य:स्थिती, वर्तमानकाळातील विविध समस्या, समाजातील विविध प्रवृत्ती इत्यादीसंबंधी वस्तुस्थितीजनक माहिती मिळवण्यासाठी ही पध्दत उपयुक्त ठरते. वर्णनात्मक संशोधन म्हणजे प्रचलित तथ्यांचे संकलन, वर्णन, स्पष्टीकरण आणि मुल्यांकन होय. वर्णनात्मक संशोधनातून वर्तमान स्थिती अपेक्षित स्थिती, आवश्यक साधनाचा शोध घेतला जातो.

वर्णनात्मक संशोधनाचे प्रकार:

1) **सर्वेक्षण पध्दती :** Survey Method

   सर्वेक्षण पध्दती ही वर्णनात्मक संशोधन पध्दतीतील प्रमुख पध्दती होय. वर्णनात्मक संशोधनाची सर्व वैशिष्टे सर्वेक्षण पध्दतीला लागू होतात.

2) **व्यक्ती अभ्यास : Case Study**

   ही संकल्पना वैद्यकीय शास्त्रातून आली आहे. डॉक्टर रुग्णाच्या उपचारासाठी ज्याप्रमाणे आजार होण्याची कारणे जाणून घेतात, त्याचप्रमाणे व्यक्ती अभ्यास पध्दतीत सामाजिक समस्या निर्माण होण्याची कारणे जाणून घेऊन उपाय योजना केल्या जातात.

3) **कार्योत्तर पध्दती : Expost Facto Method**

   कार्योत्तर संशोधन पध्दतीत वर्णनात्मक, सहसंबंधात्मक व प्रायोगिक संशोधन पध्दतीची गुणवैशिष्टे असतात. या पध्दतीत एखादी घटना का व कशी घडली याचा शोध घेतला जातो.

4) **वांशिक पध्दती : The Genetic Method**

   बालकांच्या शारीरिक, मानसिक व भावनिक क्षेत्रातील वाढ व विकासाचा अभ्यास मानसशास्त्र, शिक्षणशास्त्र व समाजशास्त्रात केला जातो. बालकांच्या विकासाची तत्त्वे परिवर्तने समजवून घेण्यासाठी वांशिक पध्दती उपयुक्त ठरते. या पध्दतीलाच Developmental Method असे म्हणतात.

5) **सहसंबंध पध्दती : Correlation Method**

   संशोधनातील विविध चलांचा परस्परांमधील सहसंबंध काढुन त्याआधारे त्या चलांसंबंधी पुर्वानुमान म्हणून निष्कर्ष काढण्याची हि प्रभावी पध्दत आहे.

संख्यात्मक संशोधन :

संख्यात्मक संशोधन हे मोठ्या प्रमाणात होतांना दिसते. आज भारतातील सर्वच विद्यापीठांमध्ये संख्यात्मक संशोधन मोठ्या प्रमाणात बघायला मिळतात. संख्यात्मक

स्वरूपाचा संशोधनात संख्या शास्त्रीय आधार असल्यामुळे व्यक्तिनिष्ठेतेचा दोष आढळून येत नाही. त्यामुळे अशा स्वरूपाचे दोष आढळून येत नाही. त्यामुळे अशा स्वरूपाचे संशोधन उच्च प्रतीचे मानले जाते. पण संख्यात्मक संशोधनातुन समाजातील मानवी वर्तन भाव भावना यांचे अचुक आकलन होईल. यांची खात्री देता येत नाही. त्यामुळे सामाजिक शास्त्रातील संशोधनात संख्यात्मक व गुणात्मक संशोधनाचा समन्वय आवश्यक आहे.

संख्यात्मक संशोधनाच्या व्याख्या :

ज्या संशोधनात निरीक्षण मापन व अत्यंत वस्तुनिष्ठपणे व काटेकोरपणे केले जाते. तसेच हे संशोधन तार्किक प्रत्यक्षवादाच्या गृहितकांवर आधारीत असते, त्यास संख्यात्मक संशोधन म्हणतात. "ज्या संशोधनात सांख्यिकीय तंत्रांचा मोठ्या प्रमाणात वापर केला जातो. विविध चलांचे मापन करतांना त्यांच्या संस्थात्मक स्थितीचाच वापर केला जातो. तसेच संशोधनाच्या उद्दिष्टांचे व परिकल्पनांच्या पडताळ्याचे निर्णयही संख्यात्मक माहितीच्या आधारे घेतले जातात, अशा संशोधनास संख्यात्मक संशोधन असे म्हणतात."

संख्यात्मक संशोधनाची वैशिष्टे :

1) संख्यात्मक संशोधनात प्रस्तावना ही मुर्त, वस्तुनिष्ठ आणि व्यक्तिनिरपेक्ष मानली
2) जाते.
3) संख्यात्मक संशोधनात संशोधक व संशोधन केली जाणारी वस्तु किंवा परिस्थिती हे दोन्ही घटक परस्परांपासून मुक्त व स्वातंत्र असतात. हे घटक कोणत्याही प्रकारच्या आंतर क्रियाव्दारे एकमेकांना प्रभावित करीत नाही.
4) संख्यात्मक संशोधनात निरीक्षण हे स्थल काल निरपेक्ष असते असे मानले जाते.
5) संख्यात्मक संशोधन हे विश्वात घडणाऱ्या प्रत्येक घटना किंवा कृतीच्या मागे काहीतरी कारण असतेच असे मानते
6) संख्यात्मक संशोधक हे मुल्यमुक्त असते, संशोधकाच्या व्यक्तीगत मुल्यांचा परिणाम संशोधन केल्या जाणाऱ्या बाबींवर पडत नाही.
7) संख्यात्मक संशोधन सिध्दांतावर व निगगमनात्म अन्वेषनावर आधारित असते.
8) संशोधकाची भुमिका तटस्थ स्वरूपाची असते.
9) माहिती विश्लेषणासाठी सांख्यिकीय तंत्राचा वापर केला जातो.
10) संख्यात्मक संशोधनाची वस्तुनिष्ठता विश्वसनीयता सप्रमाणता सत्यापनशीलता निश्चिता सामान्यीकरण व पूर्वानुमान क्षमता ही वैशिष्ट्ये असतात.
11) संख्यात्मक संशोधन हे व्यवस्थित नियंत्रित आणि अनुभवजन्य असते आणि त्याव्दारे नैसर्गिक घटनांमधील संभवनीय संबंधाच्या गृहितकृत्याचे टिकात्मक परीक्षण केले जाते.

संख्यात्मक संशोधनाचे टप्पे :

समस्या सुत्रण परिकल्पनांची निर्मिती, संशोधन आराखडा, तथ्यांचे संकलन, तथ्यांचे विश्लेषण व वर्गीकरण सामान्यीकरण अहवाल या पध्दतीने संख्यात्मक संशोधन केल्या जाते.

गुणात्मक संशोधन : Qualitative Research

विसाव्या शतकाच्या उत्तरार्धात व्यक्तींच्या समुहाचा सखोल अभ्यास करण्यासाठी गुणात्मक संशोधन केले जावे असा दृष्टिकोन उदयास आला. गुणात्मक संशोधन हे अनुभव, कल्पना, भावना, मत, दृष्टिकोन या संदर्भातील व्यक्तिनिष्ठ माहितीवर आधारित असते. एखादी सामाजिक प्रक्रिया निसर्गत:च कशी घडली याचे वर्णन गुणात्मक संशोधनात केले जाते.

गुणात्मक संशोधनाच्या व्याख्या :

1) **मार्शल आणि रोझमन :** "अभ्यासासाठी निवडलेल्या परिसरातील दैनंदिन जीवनाशी एकरुप होणे आवश्यक मानणारी, सहभागी व्यक्तींच्या जीवनविषयक दृष्टिकोनाला महत्त्व देणारी आणि ज्या दृष्टिकोनाचा शोध घेणारी, शोध ही संशोधक आणि सहभागी व्यक्ती यांच्यात परस्पर परिणाम करणारी प्रक्रिया आहे. असे मानणारी आणि प्राथमिक आधार सामग्री करिता प्रामुख्याने सर्वसामान्य लोकांच्या शाब्दिक निवेदनावर अवलंबुन असणारी वर्णनात्मक प्रक्रिया म्हणजे गुणात्मक संशोधन पध्दती होय."
2) **स्ट्राडस आणि कॉर्बिन :** "कोणत्याही प्रकारची सांख्यिकीय अथवा परिणामदर्शक साधनाचा वापर न करता निष्कर्ष मांडलेले कोणत्याही प्रकारचे संशोधन म्हणजे गुणात्मक संशोधन होय."

गुणात्मक संशोधनाच्या पध्दती व तंत्रे :

1) संस्कृती वर्णन : (Ethnography)

यामध्ये स्वाभाविक स्थितीतुन दैनंदिन व्यवहाराचे निरीक्षण करुन किंवा समुहात सहभागी होऊन सामाजिक गटाच्या अस्तित्वाचा शोध घेतला जातो. तसेच मानवी वर्तन व सवयींचा अभ्यास केला जातो. संस्कृती वर्णन पध्दतीत संस्कृतीचा समष्टिवाही पध्दतीने सखोल अभ्यास केला जातो. यामध्ये समाजातील धर्म, कर्मकांड, मिथके, सांस्कृतिक, भाषिक व्यवहार, कौटुंबिक नातेसंबंध यांचा अभ्यास केला जातो.

2) पायाभूत सिध्दांत : (Grounded Theory)

गुणात्मक संशोधनाचा पायाभुत सिध्दांत स्ट्रॉस यांनी विकसित केला आहे. आगमन व निगमन या दोन्ही विचारांच्या पध्दतीतून पायाभूत सिध्दांताची निर्मिती झाली आहे.

3) व्यक्ती अभ्यास : (Case Study Method)

4) आशय विश्लेषण : (Content Analysis)

आशय विश्लेषणाचा सर्वप्रथम वापर 1926 मध्ये मेलकोम विल्ली यांनी वर्तमानपत्रांच्या आशय विश्लेषणातून केला. यामध्ये वृत्तपत्रे, कादंबरी, भाषणे अशा संप्रेषण् माध्यमांचे विश्लेषण करून त्यातील मतितार्थ शोधला जातो.

5) सहभागी निरीक्षण : (Participant Observation)

सहभागी निरीक्षण पध्दतीत संशोधक समुहात अशाप्रकारे सहभागी होतो की, तो समुह संशोधकाला त्याच्यापेक्षा बाहेरचा समजत नाही. या संशोधन पध्दतीचे मुळ परंपरागत संस्कृती वर्णन संशोधनामध्ये आहे.

गुणात्मक संशोधनाची वैशिष्टे :

1) गुणात्मक स्वरूपाची माहिती
2) नैसर्गिक स्थितीत माहिती संकलन
3) संशोधन आराखड्यातील लवचिकता
4) सहेतुक नमुना निवड
5) निरीक्षण व सहभागिता
6) सर्व समावेशकता
7) सामाजिक संदर्भाचा अभ्यास
8) व्यक्तिनिष्ठता व वस्तुनिष्ठतेचा समन्वय
9) उद्गामी विचार पध्दतीचा अवलंब
10) खुलेपणा

समारोप:

अशा प्रकारे संशोधन कार्यासाठी संशोधनासाठी विविध पध्दतींचा विविध साधनाचा तंत्राचा उपयोग करण्यात येतो. संशोधन हे वस्तुनिष्ठ, शास्त्रशुध्द पध्दतीने होण्यासाठी संशोधकाला विविध पुर्वगतसंशोधने व संबंधित साहित्यांचा वापर करून आपल्या संशोधन कार्यासाठी उपयोग करून घेता येतो.

संदर्भ सूची

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2) अध्यापन व संशोधन अभियोग्यता संपूर्ण मार्गदर्शक - डॉ. शशिकांत अन्नदाते व स्वाती शेटे
3) संशोधन पध्दती प्रक्रिया अंतरंग डॉ. दु.का. संत
4) शैक्षणिक संशोधन पध्दती - भिंताडे वि.रा.
5) संशोधन पध्दतीशास्त्र तंत्रे आगलावे प्रदिप
6) शैक्षणिक संशोधनाची मुलतत्वे - प्रा.रा.श.मुळे, प्रा. वि.तु. उमाठे
7) इंटरनेट

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युवाओं के समग्र विकास के लिए शिक्षा नीति 2020 में व्यावसायिक शिक्षा का योगदान

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Abstract:

स्वामी विवेकानंद के अनुसार," मनुष्य की अंतर्निहित पूर्णता की अभिव्यक्ति करना ही शिक्षा है अर्थात अंतर्गत गुणों को विकसित कर उन्हें पूर्णता को उपलब्ध कराना ही शिक्षा का उद्देश्य है।" सार्वभौमिक उच्चतर स्तरीय शिक्षा वह उचित माध्यम है, जिससे देश की समृद्ध प्रतिभा और संसाधनों का सर्वोत्तम विकास और संवर्द्धन व्यक्ति, समाज, राष्ट्र और विश्व की भलाई के लिए किया जा सकता है। अगले दशक में भारत दुनिया का सबसे युवा जनसंख्या वाला देश होगा और इन युवाओं को उच्चतर गुणवत्तापूर्ण शैक्षिक अवसर उपलब्ध कराने पर ही भारत का भविष्य निर्भर करेगा। रोज़गार और वैश्विक पारिस्थितिकी में तीव्र गति से आ रहे परिवर्तनों की वजह से यह जरुरी हो गया है कि बच्चे, जो कुछ सिखाया जा रहा है, उसे तो सीखें ही और साथ ही वे सतत सीखते रहने की कला भी सीखें। आजाद भारत के इतिहास में 1986 में सर्वप्रथम, राष्ट्रीय शिक्षा नीति को बनाया गया था और 1992 में इसमें संशोध किये गये। इसके पश्चात् 34 वर्षों के एक लम्बे अन्तराल के बाद 'नवीन शिक्षा नीति 2020' की घोषणा, कोरोना महामारी के समय वर्तमान प्रधानमंत्री श्री नरेंद्र मोदी के सरकार के द्वारा की गयी।

Keywords - शिक्षा नीति 2020, व्यावसायिक शिक्षा, विद्यार्थी, कौशल, शिक्षा का मुख्य उद्देश्य आदि।

Introduction:

शिक्षा शिक्षार्थियों के जीवन के सभी पक्षों और क्षमताओं का संतुलित विकास करे इसके लिए पाठ्यक्रम में विज्ञान और गणित के अलावा बुनियादी कला, शिल्प, मानविकी, खेल और फिटनेस, भाषाओं, साहित्य, संस्कृति और मूल्य का अवश्य ही समावेश किया जाये। शिक्षा से चरित्र निर्माण होना चाहिए, शिक्षार्थियों में नैतिकता, तार्किकता, करुणा और संवेदनशीलता विकसित करनी चाहिए और साथ ही रोज़गार के लिए सक्षम बनाते हुए अधिक सार्थक और संतोषजनक जीवन और कार्य भूमिकाओं के लिए तैयार करना चाहिए।

Review of Literature:

शिक्षण-शास्त्र को पुनःघटित करने की द्रुष्टि से 'नवीन शिक्षा नीति 2020' के अंतर्गत शिक्षा में विषयवस्तु को बढ़ाने की जगह जोर इस बात पर अधिक होने की ज़रूरत महसूस की गयी है कि बच्चे समस्या-समाधान और तार्किक एवं रचनात्मक रूप से सोचना सीखें, विविध विषयों के बीच अंतर्संबंधों को देख पायें, कुछ नया सोच पायें और नयी जानकारी को नए और बदलती परिस्थितियों या क्षेत्रों में उपयोग में ला पायें। ऐसे में जरूरत है कि शिक्षण प्रक्रिया शिक्षार्थी केन्द्रित हो, जिज्ञासा, खोज, अनुभव और संवाद के आधार पर संचालित हो, लचीली हो और समग्रता और समन्वित रूप से देखने-समझने में सक्षम बनाने वाली और अवश्य ही, रुचिपूर्ण हो।

Limitations of the study:

राष्ट्रीय शिक्षा नीति 2020 में व्यावसायिक शिक्षा के स्थान को देश के युवाओं से परिचित कराने के उद्देश्य से अपना यह आलेख प्रस्तुत कर रही हूँ।

Analysis and Interpretation:

नई राष्ट्रीय शिक्षा नीति 2020 के नवें अध्याय के प्रथम अनुच्छेद के दूसरे बिन्दु में लिखा हुआ है कि -"व्यक्तियों के समग्र विकास के उद्देश्य के लिए यह आवश्यक है कि पूर्व विद्यालय से उच्चतर शिक्षा तक, सीखने के प्रत्येक चरण में कौशल और मूल्यों का एक निर्धारित सेट शामिल किया जाएगा। शिक्षा अपने वास्तविक उद्देश्यों और लक्ष्यों की प्राप्ति तभी कर सकती हैं जब वह शिक्षा व्यावसायिक शिक्षा

हो। शिक्षा का मुख्य उद्देश्य जिस देश में छात्रों को व्यवसाय दिलाना और उन्हें जीविकोपार्जन योग्य बनाना होता है, उस देश का विकास निश्चित ही संभव हैं। इसी उद्देश्य को ध्यान में रखते हुए नई राष्ट्रीय शिक्षा नीति 2020 के ग्यारहवें अध्याय के प्रथम अनुच्छेद में लिखा हुआ है कि -"भारत में समग्र एवं बहु-विषयक तरीके से सीखने की एक प्राचीन परंपरा है, तक्षशिला और नालंदा जैसे विश्वविद्यालयों से लेकर ऐसे कई व्यापक साहित्य हैं जो विभिन्न क्षेत्रों में विषयों के संयोजन को प्रकट करते हैं।

प्राचीन भारतीय साहित्य जैसे बाणभट्ट की कादंबरी शिक्षा को 64 कलाओं के ज्ञान के रूप में परिभाषित / वर्णित करती है; और इन 64 कलाओं में न केवल गायन और चित्रकला जैसे विषय शामिल हैं, बल्कि वैज्ञानिक क्षेत्र जैसे रसायनशास्त्र और गणित, व्यावसायिक क्षेत्र जैसे बढ़ई का काम और कपड़े सिलने का कार्य, व्यावसायिक कार्य जैसे औषधि तथा अभियांत्रिकी और साथ ही साथ सम्प्रेषण, चर्चा और वाद-संवाद करने के व्यवहारिक कौशल (सॉफ्ट स्किल्स) भी शामिल हैं। यह विचार कि इंसानी सृजन के सभी क्षेत्र (जिसमें गणित, विज्ञान, पेशेवर और व्यावसायिक विषय और व्यवहारिक कौशल शामिल हैं) को 'कलाओं के रूप में देखा जाना चाहिए, भारतीय चिंतन की देन है। विभिन्न कलाओं के ज्ञान के इस विचार, या जैसा कि आधुनिक युग में जिसे लिबरल आर्ट्स (कलाओं का एक उदार नजरिया)' कहा जाता है, को भारतीय शिक्षा में पुनः शामिल करना ही होगा, चूँकि यह वही शिक्षा है जिसकी 21वीं शताब्दी में आवश्यकता होगी।"

राष्ट्रीय शिक्षा नीति 2020 के ग्यारहवें अध्याय के द्वितीय अनुच्छेद में लिखा हुआ है कि -"आकलन से पता चलता है की, स्नातक शिक्षा के दौरान, ऐसी शैक्षणिक पद्धतियाँ जो एसटीईएम (विज्ञान, तकनीकी, अभियांत्रिकी और गणित) के साथ मानविकी और कला शिक्षा को समाहित करती हैं, तो रचनात्मकता और नवाचार, आलोचनात्मक चिंतन एवं उच्चतर स्तरीय चिंतन की क्षमता, समस्या समाधान योग्यता, समूह कार्य में दक्षता, सम्प्रेषण कौशल, सीखने में गहराई और पाठ्यक्रम के सभी विषयों पर पकड़, सामाजिक और नैतिकता के प्रति जागरूकता आदि जैसे सकारात्मक शैक्षणिक परिणाम प्राप्त हुए हैं और साथ ही, समग्र और बहु-विषयक शिक्षा दृष्टिकोण के माध्यम से अनुसंधान में भी सुधार और बढ़ोत्तरी हुई है।"

राष्ट्रीय शिक्षा नीति 2020 के ग्यारहवें अध्याय के तृतीय अनुच्छेद में लिखा हुआ है कि –

"एक समग्र और बहु-विषयक शिक्षा का उद्देश्य मनुष्य की सभी क्षमताओं- बौद्धिक, सौन्दर्यात्मक, सामाजिक, शारीरिक, भावात्मक तथा नैतिक- को एकीकृत तरीके से करना होगा। ऐसी शिक्षाव्यक्ति के सर्वांगीण विकास: कला, मानविकी, भाषा, विज्ञान, सामाजिक विज्ञान, और व्यावसायिक, तकनीकी और व्यावसायिक क्षेत्रों में महत्वपूर्ण 21 वीं सदी की क्षमता; सामाजिक जुड़ाव की नैतिकता व्यवहारिक कौशल (सॉफ्ट स्किल्स), जैसे सम्प्रेषण, चर्चा, वाद-विवाद: और एक चुने हुए क्षेत्र या क्षेत्रों में अच्छी विशेषज्ञता में मदत करेगी। इस तरह की समग्र शिक्षा, लंबे समय तक व्यावसायिक, तकनीकी और पेशेवर विषयों सहित सभी स्नातक कार्यक्रमों का दृष्टिकोण होगा।"

राष्ट्रीय शिक्षा नीति 2020 के ग्यारहवें अध्याय के चौथे अनुच्छेद में लिखा हुआ है कि –"एक समग्र और बहु-विषयक शिक्षा, जो कि भारत के इतिहास में सुन्दर ढंग से वर्णित की गई है। वास्तव में आज के स्कूलों की जरूरत है, ताकि हम इक्कीसवीं शताब्दी और चौथी औद्योगिक क्रांति का नेतृत्व कर सकें। यहाँ तक कि अभियांत्रिकी संस्थान जैसे आई. आई. टी, कला और मानविकी के साथ समग्र और बहु-विषयक शिक्षा की ओर बढ़ेंगे। कला एवं मानविकी के छात्र भी विज्ञान सीखेंगे, कोशिश यही होगी की सभी व्यावसायिक विषय और व्यवहारिक कौशलों (सॉफ्ट स्किल्स) को हासिल करें। कला, विज्ञान और अन्य क्षेत्रों में भारत की खास विरासत इस तरह की शिक्षा की ओर बढ़ने में सहायक होगी।"

राष्ट्रीय शिक्षा नीति 2020 के ग्यारहवें अध्याय के सातवें अनुच्छेद में लिखा हुआ है कि –"देश के विभिन्न उच्चतर शिक्षा संस्थानों (एचईआई) में भाषा, साहित्य, संगीत, दर्शन, भारत-विद्या, कला, नृत्य, नाट्यकला, शिक्षा, गणित, सांख्यिकी, सैद्धांतिक तथा व्यावहारिक विज्ञान, समाजशास्त्र, अर्थशास्त्र, खेल, अनुवाद एवं व्याख्या और अन्य ऐसे विषयों के विभागों को बहु-विषयक, भारतीय शिक्षा और वातावरण को प्रोत्साहित करने के लिए स्थापित और मज़बूत किया जाएगा। इन विषयों में सभी स्नातक उपाधि कार्यक्रमों में क्रेडिट दिया जाएगा।"

व्यावसायिक शिक्षा का नवीन आकल्पन

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के प्रथम अनुच्छेद में लिखा हुआ है कि –"भारत के 12वीं पंचवर्षीय योजना (2012-2017) के अनुमान के अनुसार 19-24 आयुवर्ग में आने वाले भारतीय कार्यबल के अत्यंत ही कम प्रतिशत (5% से कम) लोगों ने औपचारिक व्यावसायिक शिक्षा प्राप्त की; जबकि संयुक्त राज्य अमेरिका में 52%, जर्मनी में 75% और दक्षिण कोरिया में अत्यंत अधिक 96% पर यह संख्या काफी अधिक है। ये संख्या भारत में व्यावसायिक शिक्षा के प्रसार में तेजी लाने की आवश्यकता को पूरी स्पष्टता से रेखांकित करती हैं।"

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के द्वितीय अनुच्छेद में लिखा हुआ है कि –"व्यावसायिक शिक्षा प्राप्त करने वाले छात्रों की कम संख्या होने के पीछे एक प्रमुख कारण यह तथ्य है कि अतीत में व्यावसायिक शिक्षा मुख्य रूप से कक्षा 11-12 और कक्षा 8 और उससे ऊपर की कक्षा के ड्रॉपआउट्स पर केंद्रित थी। इसके अलावा, व्यावसायिक विषयों के साथ 11वीं-12वीं पास करने वाले विद्यार्थियों के पास अक्सर उच्चतर शिक्षा में अपने चुने हुए व्यवसाय क्षेत्र में आगे बढ़ने का स्पष्ट मार्ग नहीं होता है। सामान्य उच्चतर शिक्षा के लिए प्रवेश मानदंड भी व्यावसायिक शिक्षा की योग्यता वाले विद्यार्थियों के लिए अवसरों की उपलब्धता को सुनिश्चित करने की दृष्टि से डिज़ाइन नहीं किए गए थे, फलस्वरूप वे अपने ही देश के अन्य लोगों के सापेक्ष 'मुख्य धारा की शिक्षा' या 'अकादेमिक शिक्षा से वंचित रह जा रहे थे। इसने व्यावसायिक शिक्षा के विषयों से संबंधित विद्यार्थियों के लिए शिक्षा में सीधे-सीधे आगे बढ़ने के रास्तों को पूरी तरह से बंद ही कर दिया, और यह एक ऐसा मुद्दा है जिसे अभी वर्ष 2013 में राष्ट्रीय कौशल योग्यता फ्रेमवर्क (एनएसक्यूएफ) की घोषणा के माध्यम से संबोधित करने का प्रयास किया गया है।"

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के तृतीय अनुच्छेद में लिखा हुआ है कि –"व्यावसायिक शिक्षा को मुख्यधारा की शिक्षा से कम महत्व की शिक्षा माना जाता है और यह भी माना जाता है कि यह मुख्य रूप से उन विद्यार्थियों के लिए है जो मुख्यधारा की शिक्षा के साथ सामंजस्य नहीं बिठा पाते। यह एक ऐसी धारणा है जो आज भी जस की तस बनी हुई है, और विद्यार्थियों द्वारा चुने गए विकल्पों को प्रभावित करती है। यह एक गंभीर चिंता का विषय है और इससे निपटने के इस तथ्य को पुनर्कल्पित किए जाने की आवश्यकता है कि भविष्य में छात्रों के समक्ष व्यावसायिक शिक्षा की पेशकश किस प्रकार की जाती है।"

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के चतुर्थ अनुच्छेद में लिखा हुआ है कि –"इस नीति का उद्देश्य व्यावसायिक शिक्षा से जुड़ी सामाजिक पदानुक्रम की स्थिति को दूर करना है, और इसके लिए आवश्यक होगा कि समस्त शिक्षण संस्थान, जैसे- स्कूल, कॉलेज और विश्वविद्यालय, चरणबद्ध तरीके से व्यावसायिक शिक्षा के कार्यक्रमों को मुख्यधारा की शिक्षा में एकीकृत करें, और इसकी शुरुआत आरंभिक वर्षों में व्यावसायिक शिक्षा के अनुभव प्रदान करने से हो जो कि फिर सुचारु रूप से उच्चतर प्राथमिक, माध्यमिक, कक्षाओं से होते हुए उच्चतर शिक्षा तक जाए। इस तरह से व्यावसायिक शिक्षा को एकीकृत करना यह सुनिश्चित करेगा कि प्रत्येक बच्चा कम से कम एक व्यवसाय से जुड़े कौशलों को सीखे और अन्य कई व्यवसायों से इस प्रकार परिचित हो। ऐसा करने के परिणामस्वरूप वो श्रम की महत्ता और भारतीय कलाओं और कारीगरी सहित अन्य विभिन्न व्यवसायों के महत्व से परिचित होगा।"

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के पंचम अनुच्छेद में लिखा हुआ है कि –"वर्ष 2025 तक, स्कूल और उच्चतर शिक्षा प्रणाली के माध्यम से कम से कम 50% विद्यार्थियों को व्यावसायिक शिक्षा का अनुभव प्रदान किया जाएगा जिसके लिए लक्ष्य और समयसीमा के साथ एक स्पष्ट कार्य योजना विकसित की जाएगी। जीईआर के लक्ष्यों को तय करते वक़्त व्यावसायिक शिक्षा से जुड़े विद्यार्थियों की संख्या को भी ध्यान में रखा जाएगा। व्यावसायिक क्षमताओं का विकास और 'अकादेमिक' या अन्य क्षमताओं का विकास साथ- साथ होगा। अगले दशक में चरणबद्ध तरीके से सभी माध्यमिक स्कूलों के शैक्षणिक विषयों में व्यावसायिक शिक्षा को एकीकृत किया जाएगा। इसके लिए माध्यमिक विद्यालय, आईटीआई पॉलिटेक्निक और स्थानीय उद्योगों आदि से साथ संपर्क और सहयोग करेंगे। स्कूलों में हब और स्पोक मॉडल में कौशल प्रयोगशालाएं भी स्थापित और सृजित की जाएंगी, जहाँ अन्य स्कूल भी इस सुविधा का उपयोग कर सकेंगे।

उच्चतर शिक्षा संस्थान स्वयं ही या फिर उद्योगों और गैर-सरकारी संगठनों के साथ साझेदारी में व्यावसायिक शिक्षा प्रदान करेंगे। वर्ष 2013 में शुरू की गई डिग्री बी. वोक पूर्व की तरह ही जारी रहेगी, लेकिन इसके अतिरिक्त भी व्यावसायिक पाठ्यक्रम अन्य सभी स्नातक डिग्री

कार्यक्रमों में नामांकित छात्रों के लिए उपलब्ध होंगे, जिसमें 4-वर्षीय बहु-विषयक स्नातक कार्यक्रम भी शामिल रहेगा। उच्चतर शिक्षण संस्थानों को सॉफ्ट स्किल्स सहित विभिन्न कौशलों में सीमित अवधि के सर्टिफिकेट कोर्स करने की भी अनुमति होगी। 'लोक विद्या', अर्थात् भारत में विकसित महत्वपूर्ण व्यावसायिक ज्ञान से जुड़े विषयों को व्यावसायिक शिक्षा पाठ्यक्रमों में एकीकरण के माध्यम से छात्रों के लिए सुलभ बनाया जाएगा। जहाँ भी संभव हो, ओडीएल मोड के माध्यम से भी व्यावसायिक पाठ्यक्रमों को संचालित करने की संभावना तलाश की जाएगी।"

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के छटे अनुच्छेद में लिखा हुआ है कि –"अगले दशक में व्यावसायिक शिक्षा को चरणबद्ध तरीके से सभी स्कूल और उच्चतर शिक्षा संस्थानों में एकीकृत किया जाएगा। व्यावसायिक शिक्षा के फोकस एरिया का चुनाव कौशल अंतर विश्लेषण (स्किल गैप एनालिसिस) और स्थानीय अवसरों के आधार पर किया जाएगा। मानव संसाधन विकास मंत्रालय इस पहल की देखरेख के लिए उद्योगों के सहयोग से, व्यावसायिक शिक्षा के विशेषज्ञों और व्यावसायिक मंत्रालयों के प्रतिनिधियों के साथ मिलकर एक राष्ट्रीय समिति नेशनल कमेटी फॉर द इंटीग्रेशन ऑफ वोकेशनल एजुकेशन (एनसीआईवीई) का गठन करेगा।"

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के सातवें अनुच्छेद में लिखा हुआ है कि –"सबसे पहले इस प्रक्रिया को आरंभ करने वाले संस्थानों के लिए यह आवश्यक है कि वे नवाचार के माध्यम से ऐसे मॉडल और प्रणालियों की खोज करें जो कि सफल हों और फिर उन्हें एनसीआईवीई द्वारा स्थापित तंत्र के माध्यम से अन्य संस्थानों के साथ साझा करें, ताकि व्यावसायिक शिक्षा की पहुँच को विस्तार देने में सहायता मिल सके । व्यावसायिक शिक्षा और अप्रेंटिसशिप प्रदान करने वाले विभिन्न मॉडलों को उच्चतर शिक्षा संस्थानों द्वारा भी प्रयोग में लाया जाएगा। उद्योगों के साथ साझेदारी के तहत उच्चतर शिक्षा संस्थानों में इन्क्यूबेशन केंद्र स्थापित किए जाएंगे । 168 राष्ट्रीय कौशल योग्यता फ्रेमवर्क (एनएसक्यएफ) को प्रत्येक विषय व्यवसाय / रोजगार के लिए संस्थानों मे इन्क्यूबेशन केंद्र स्थापित किए जाएंगे।"

राष्ट्रीय शिक्षा नीति 2020 के सोलहवें अध्याय के आठवें अनुच्छेद में लिखा हुआ है कि –" राष्ट्रीय कौशल योग्यता फ्रेमवर्क (एनएसक्यूएफ) को प्रत्येक विषय व्यवसाय / रोजगार के लिए अधिक विस्तारपूर्वक निर्मित किया जाएगा। इसके अलावा, भारतीय मानकों को अंतर्राष्ट्रीय श्रम संगठन द्वारा बनाए गए व्यवसायों के अंतर्राष्ट्रीय मानक वर्गीकरण के साथ जोड़ा जाएगा। यह फ्रेमवर्क पूर्ववर्ती शिक्षा की आवश्यकता के लिए आधार प्रदान करेगा । इसके माध्यम से, ड्रॉपआउट हो चुके बच्चों के व्यावहारिक अनुभव को फ्रेमवर्क के प्रासंगिक स्तर के साथ जोड़कर उन्हें पुनः औपचारिक प्रणाली से जोड़ा जाएगा । क्रेडिट आधारित यह फ्रेमवर्क, छात्रों को 'सामान्य' से व्यावसायिक शिक्षा तक जाने को सुगम बनाएगा।"

व्यावसायिक शिक्षा राष्ट्रीय शिक्षा नीति 2020 के बीसवें अध्याय के प्रथम अनुच्छेद में लिखा हुआ है कि – "पेशेवरों को तैयार करने से जुड़ी शिक्षा के लिए यह अनिवार्य है कि उसके पाठ्यक्रम में नैतिकता और सार्वजनिक उद्देश्य के महत्व का समावेश हो, और इसके साथ ही साथ उस विषय विशेष की शिक्षा और व्यावहारिक अभ्यास की शिक्षा को भी शामिल किया जाए। अन्य समस्त उच्चतर शिक्षा से जुड़े विषयों की तरह ही इसके केंद्र में भी तार्किक और अंतःविषयी सोच, विमर्श, चर्चा, अनुसंधान और नवाचार को शामिल किया जाना चाहिए । इस उद्देश्य को प्राप्त करने के लिए यह आवश्यक है कि व्यावसायिक विकास से जुड़ी शिक्षा बाकी विषयों से कटी या अलग-थलग ना रहे।"

राष्ट्रीय शिक्षा नीति 2020 के बीसवें अध्याय के द्वितीय अनुच्छेद में लिखा हुआ है कि –"इस प्रकार व्यावसायिक विकास की शिक्षा समग्र उच्चतर शिक्षा प्रणाली का एक अभिन्न अंग बन जाएगी। स्टैंड-अलोन कृषि विश्वविद्यालयों, विधि विश्वविद्यालयों, स्वास्थ्य विज्ञान विश्वविद्यालयों, तकनीकी विश्वविद्यालयों और अन्य विषयों के स्टैंड-अलोन विश्वविद्यालयों का उद्देश्य अपने आप को एक बहु-विषयक संस्थान के रूप में विकसित करना होना चाहिए जो कि एक समग्र और बहु-विषयक शिक्षा मुहैया करवाए। व्यावसायिक या सामान्य शिक्षा प्रदान करने वाले सभी संस्थान वर्ष 2030 तक समेकित रूप से दोनों प्रकार की शिक्षा प्रदान करने वाले संस्थान या संस्थान-समूह बनने के लक्ष्य के साथ कार्य करेंगे।"

राष्ट्रीय शिक्षा नीति 2020 के बीसवें अध्याय के तृतीय अनुच्छेद में लिखा हुआ है कि –" कृषि शिक्षा और

इससे संबद्ध विषयों को पुनर्जीवित किया जाएगा । यद्यपि देश के विश्वविद्यालयों में कृषि विश्वविद्यालयों का प्रतिशत 9 है लेकिन कृषि और संबद्ध विज्ञान विषयों में नामांकन उच्चतर शिक्षा के कुल नामांकन के 1% से भी कम है। कुशल स्नातकों और तकनीशियनों, नवीन अनुसंधान और तकनीकी तथा कार्य प्रक्रियाओं से जुड़े बाज़ार आधारित विस्तार के माध्यम से कृषि उत्पादकता को बढ़ाने के लिए यह आवश्यक है कि कृषि और संबद्ध विषयों की क्षमता और गुणवत्ता दोनों को बेहतर किया जाय ।

सामान्य शिक्षा के साथ जुड़ते कार्यक्रमों के माध्यम से कृषि और पशुचिकित्सा विज्ञान से जुड़े पेशेवरों की तैयारी में तेजी से वृद्धि की जाएगी। कृषि शिक्षा की प्रक्रिया को ऐसे व्यावसायिक व्यक्तियों के विकास के लिए परिवर्तित किया जाएगा जो कि स्थानीय ज्ञान, पारंपरिक ज्ञान, और उभरती हुई तकनीकों को समझ सकें और उसका उपयोग कर सकें, और इसके साथ ही साथ महत्वपूर्ण मुद्दों जैसे कि भूमि की गिरती उत्पादन शक्ति, जलवायु परिवर्तन, हमारी बढ़ती आबादी के लिए पर्याप्त भोजन की आवश्यकता, आदि को लेकर जागरूक हों । यह आवश्यक है कि कृषि शिक्षा प्रदान करने वाले संस्थानों से स्थानीय समुदाय सीधे-सीधे लाभान्वित हों, इसका एक तरीका हो सकता है कृषि प्रौद्योगिकी पार्क की स्थापना करना ताकि प्रौद्योगिकीय-इन्क्यूबेशन और इसके प्रसार और टिकाऊ तरीकों को बढ़ावा मिल सके।"

राष्ट्रीय शिक्षा नीति 2020 के बीसवें अध्याय के चौथे अनुच्छेद में लिखा हुआ है कि –"विधिक शिक्षा को वैश्विक स्तर पर प्रतिस्पर्धी बनाने की आवश्यकता है, साथ ही इस क्षेत्र से संबन्धित बेहतरीन प्रक्रियाओं, कार्यप्रणालियों और नयी तकनीकों को अपनाया जाएगा जिससे कि सभी के लिए और सही समय पर न्याय को सुनिश्चित किया जा सके। साथ ही इसे सामाजिक, आर्थिक और राजनैतिक न्याय क संवैधानिक मूल्यों से संवर्धित एवं उनके आलोक में बनाया जाना चाहिए और लोकतन्त्र, कानून शासन और मानवाधिकारों के माध्यम से राष्ट्रीय पुनर्निर्माण की दिशा में निर्देशित किया जाना चाहिए। यह सुनिश्चित किया जाना चाहिए कि विधिक शिक्षा के पाठ्यक्रम में सामाजिक-सांस्कृतिक संदर्भों के साथ-साथ साक्ष्य-आधारित तरीके से, विधिक विचार प्रक्रिया के इतिहास, न्याय के सिद्धांतों, न्यायशास्त्र के अभ्यास और अन्य संबंधित विषयों को उचित और पर्याप्त प्रतिनिधित्व हो। विधिक शिक्षा की पेशकश करने वाले राज्य संस्थानों को भविष्य के वकीलों और न्यायाधीशों के लिए द्विभाषी शिक्षा की पेशकश पर विचार करना चाहिए जिसमें एक भाषा अंग्रेजी और दूसरी उस राज्य की भाषा हो जिसमें यह विधिक शिक्षा संस्था स्थित है।"

राष्ट्रीय शिक्षा नीति 2020 के बीसवें अध्याय के पाँचवे अनुच्छेद में लिखा हुआ है कि –"स्वास्थ्य शिक्षा को पुनर्कल्पित किए जाने की आवश्यकता है जिससे कि शैक्षिक कार्यक्रमों की अवधि, संरचना और डिजाइन, स्नातकों द्वारा निभाई जाने वाली भूमिकाओं के अनुरूप हो सकें। प्राथमिक देखभाल और माध्यमिक अस्पतालों में काम करने के लिए मुख्य रूप से अच्छी तरह से परिभाषित मापदंडों पर छात्रों का नियमित अंतराल पर मूल्यांकन किया जाएगा। यह देखते हुए कि हमारे लोग स्वास्थ्य सेवा में बहुलतावादी विकल्पों का प्रयोग करते हैं, हमारी स्वास्थ्य शिक्षा प्रणाली को एकीकृत होना चाहिए – जिसका अर्थ है कि, एलोपैथिक चिकित्सा शिक्षा के सभी छात्रों को आयुर्वेद, योग और प्राकृतिक चिकित्सा, यूनानी, सिद्ध और होम्योपैथी (आयुष) की बुनियादी समझ होना चाहिए, और ऐसा ही अन्य सभी प्रकार की चिकित्सा से संबन्धित विद्यार्थियों के विषय में भी लागू होगा। सभी प्रकार की हेल्थकेयर शिक्षा में निवारक स्वास्थ्य देखभाल (प्रिवेंटिव हेल्थकेयर) और सामुदायिक चिकित्सा (कम्यूनिटी मेडिसिन) पर अधिक जोर दिया जाएगा।"

राष्ट्रीय शिक्षा नीति 2020 के बीसवें अध्याय के छठे अनुच्छेद में लिखा हुआ है कि –"तकनीकी शिक्षा में डिग्री और डिप्लोमा कार्यक्रम शामिल हैं, उदाहरण के लिए, इंजीनियरिंग, प्रौद्योगिकी, प्रबंधन, वास्तुकला, टाउन प्लानिंग, फार्मेसी, होटल प्रबंधन और कैटरिंग आदि जो भारत के समग्र विकास के लिए महत्वपूर्ण हैं। इन क्षेत्रों में न केवल कई दशकों तक पूरी तरह से योग्य व्यक्तियों की मांग जारी रहेगी, बल्कि इन क्षेत्रों में नवाचार और अनुसंधान सुनिश्चित करने के लिए संबंधित उद्योगों और उच्चतर शिक्षा संस्थानों के बीच घनिष्ठ सहयोग की भी अधिक आवश्यकता होगी। भारत को स्वास्थ्य, पर्यावरण और दीर्घकालिक स्वस्थ जीवन में इनके महत्वपूर्ण अनुप्रयोगों के साथ, जिन्हें युवाओं के लिए रोजगार संवर्धन हेतु अवर स्नातक शिक्षा कार्यक्रम का हिस्सा बनाया जाएगा, अत्याधुनिक महत्वपूर्ण क्षेत्रों जैसे कि जीनोमिक अध्ययन, जैव प्रौद्योगिकी, नैनो प्रौद्योगिकी,

न्यूरोसाइंस के साथ ही साथ तेजी से प्रमुखता हासिल कर रहे आर्टिफिशियल इंटेलिजेंस (ए आई), 3-डी मशीनिंग, बड़े डेटा विश्लेषण, और मशीन लर्निंग क्षेत्रों में पेशेवरों को तैयार करने में भी अग्रणी भूमिका निभानी चाहिए।"

राष्ट्रीय शिक्षा नीति 2020 के इक्कीसवें अध्याय के पांचवें अनुच्छेद में लिखा हुआ है कि –"सबसे पहले एनसीईआरटी के एक नए और सु-समर्थित घटक संगठन द्वारा एक उत्कृष्ट प्रोड़ शिक्षण पाठ्यचर्या ढांचा विकसित किया जाएगा जो प्रोदा शिक्षा के लिए समर्थित हो ताकि साक्षरता, संख्यात्मकता बुनियादी शिक्षण, व्यावसायिक कौशल आदि के लिए उत्कृष्ट पाठ्यचर्या बनाने में एनसीईआरटी की मौजूदा विशेषज्ञता के प्रति अनुरूपता विकसित और उससे सामंजस्य रखते हुए प्रौढ़ शिक्षा की पाठ्यचर्या ढांचा तैयार होगा।" इस पाठ्यचर्यात्मक ढाँचे में कम से कम पांच प्रकार के कार्यक्रम शामिल होंगे, जिन में व्यावसायिक कौशल विकास (स्थानीय रोज़गार प्राप्ति के मद्देनज़र) एक होगा।

राष्ट्रीय शिक्षा नीति 2020 के इक्कीसवें अध्याय के छठे अनुच्छेद में लिखा हुआ है कि –"उपयुक्त बुनियादी ढांचा सुनिश्चित किया जाएगा ताकि सभी इच्छुक प्रौढ़ो को प्रौढ़ शिक्षा और आजीवन अधिगम प्राप्त हो सके। इस दिशा में एक महत्वपूर्ण पहल स्कूल के घंटों के बाद और सप्ताहांत पर स्कूल / स्कूल परिसरों का उपयोग, प्रौढ़ शिक्षा पाठ्यक्रमों के लिए सार्वजनिक पुस्तकालय स्थान, जो जहाँ तक संभव हो आईसीटी से सुसज्जित होंगे और अन्य सामुदायिक भागीदारी और संवर्धन गतिविधियों के लिए किया जाना होगा। स्कूल शिक्षा, उच्चतर शिक्षा, प्रौढ़ शिक्षा और व्यावसायिक शिक्षा के लिए और अन्य सामुदायिक और स्वयंसेवी गतिविधियों के लिए अवसंरचना का साझाकरण, भौतिक और मानव, दोनों संसाधनों के कुशल उपयोग को सुनिश्चित करने के साथ-साथ इन चार प्रकार की शिक्षा और उससे परे के बीच तालमेल बनाने के लिए महत्वपूर्ण होगा। इन कारणों से, उच्चतर शिक्षण संस्थानों, व्यावसायिक प्रशिक्षण केन्द्रों आदि जैसे, आदि अन्य सार्वजनिक संस्थानों के भीतर प्रौढ़ शिक्षा केन्द्रो को भी शामिल किया जा सकता है।"

राष्ट्रीय शिक्षा नीति 2020 के ग्यारहवें अध्याय के आठवें अनुच्छेद में लिखा हुआ है कि –"अंतत: समग्र शिक्षा के अंतर्गत, उच्चतर शिक्षा संस्थान अपने ही संस्थानों में या अन्य उच्चतर शिक्षा / शोध संस्थानों में इंटर्नशिप के अवसर उपलब्ध कराएंगे, जैसे- स्थानीय उद्योग, व्यवसाय, कलाकार, शिल्पकार आदि के साथ इंटर्नशिप और अध्यापकों और शोधार्थियों के साथ, शोध इंटर्नशिप, ताकि छात्र सक्रिय रूप से अपने सीखने के व्यावहारिक पक्ष के साथ जुड़ें और साथ ही साथ, स्वयं के रोज़गार की संभावनाओं को भी बढ़ा सकें।"

Conclusion of the study:

भारत की समृद्ध विविधता और संस्कृति के प्रति सम्मान रखते हुए और साथ ही देश की स्थानीय और वैश्विक संदर्भ में आवश्यकताओं का ध्यान रखते हुए नई राष्ट्रीय शिक्षा नीति 2020 में व्यावसायिक शिक्षा का स्थान उपरोक्त बिंदुओं में समावेश किया गया है। भारत के युवाओं को भारत देश के बारे में और इसकी विविध सामाजिक, सांस्कृतिक, और तकनीकी आवश्यकताओं सहित यहाँ की अद्वितीय कला, भाषा और ज्ञान परंपराओं के बारे में ज्ञानवान बनाना राष्ट्रीय गौरव, आत्मविश्वास, आत्मज्ञान, परस्पर सहयोग और एकता की दृष्टि से भारत को सतत ऊंचाइयों पर पोहोंचाने के लक्ष्य की पूर्ति के लिए नई राष्ट्रीय शिक्षा नीति 2020 में व्यावसायिक शिक्षा का महत्वपूर्ण स्थान है यह कहना अतिशयोक्ति नहीं होगी।

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हवामान बदलाचा सामाजिक व सांस्कृतिक जीवनावरील प्रभाव

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गोषवारा:

हवामान बदल हा सर्व मानवजातीचा ज्वलंत प्रश्न आहे. वाढत्या जागतिक तापमानामुळे पर्यावरणाला गंभीर धोका निर्माण झाला आहे. सन २०२३ हे सर्वाधिक उष्णतेचे वर्ष होते. फेब्रुवारी २०२३ ते जानेवारी २०२४ या काळात पृथ्वीच्या सरासरी तापमानाची वाढ दीड अंश सेल्सिअसपेक्षा जास्त होती असे युरोपियन युनियनच्या अंतराळ कार्यक्रमाचा भाग असणाऱ्या कोपर्निकस क्लायमेट चेंज सर्व्हिसकडून जाहीर करण्यात आले आहे. साहजिकच जागतिक तापमान वाढ दीड अंश सेल्सिअसखाली ठेवण्यात जागतिक पातळीवर अपयश आले आहे. यामुळे जगाच्या सामाजिक व सांस्कृतिक जीवनावर याचे दीर्घकालीन परिणाम दिसून येत आहेत. हा हवामानाचा कोप भारताबरोबरच जगातील १०९ देशानाही भोवला आहे. हवामानातील बदलांचे संकेत लक्षात घेऊन त्यांना सामोरे जाण्यासाठी मानवाने तयार असणे गरजेचे आहे. 1896 मध्ये स्वीडिश शास्त्रज्ञ वांटे अरहेरिन्स यांनी जगाला सांगितले की जीवाश्म इंधन जाळल्याने ग्लोबल वार्मिंगवर परिणाम होऊ शकतो, परंतु त्याच्याकडे दुर्लक्ष केले गेले. जागतिक हवामानात नेहमीच मोठ्या प्रमाणात नैसर्गिक परिवर्तनशीलता असते. हवामान बदल हा जलद, सतत आणि परिवर्तनीय आहे. त्याला ग्लोबल वॉर्मिंग म्हणतात. हवामान बदलाचा दीर्घ इतिहास आहे, हे स्पष्ट आहे की पृथ्वीवर हवामान बदलाचे अनेक भाग आहेत, पॅलिओ हवामानशास्त्रज्ञ आणि भूवैज्ञानिक हवामान बदलाचे पुरावे याचे साक्षीदार आहेत.

मुख्य शब्द: हवामान बदल, तापमानवाढ, ग्लोबल वार्मिंग, इकोलॉजिकल सिस्टम्स, कोस्टल झोन इ.

परिचय:

'हवामान' या शब्दाचा अर्थ एखाद्या दिलेल्या जागेसाठी दीर्घकालीन सरासरी हवामान असे आहे तर हवामान हे दिलेल्या वेळी दिलेल्या जागेसाठी वातावरणाची स्थिती दर्शवते. हवामान बदल ही एक धीमी प्रक्रिया आहे परंतु हवामानातील बदलाचा परिणाम दीर्घ कालावधीत होतो. अंतराळानुसार, हवामानाची श्रेणी विस्तृत आहे तर हवामान अगदी कमी अंतरावर बदलू शकते.

हवामान बदलाचे परिणाम जंगली वणवे, महासागरांची तापमान वाढ, ध्रुवीय प्रदेशातील बर्फ वितळणे, तीव्र उन्हाळा-हिवाळा, अवेळी पडणारा पाऊस, अतिवृष्टी, वादळे व गारपीट इ. स्वरुपात जाणवत आहेत. साहजिकच यामुळे सामाजिक मानवी व सांस्कृतिक पर्यावरणीय जीवनावर याचे दिर्घकालीन परिणाम होत आहेत.

हवामानाची भूमिका आणि महत्त्व:

वातावरण आणि इतर पर्यावरणीय प्रणाली जसे की लिथोस्फियर, हायड्रोस्फियर आणि बायोस्फियर यांच्यातील जटिल परस्परसंवादाचा परिणाम म्हणजे हवामान. हवामान पर्यावरणाच्या भौगोलिक वितरणावर नियंत्रण ठेवते. मातीच्या निर्मितीसाठी हा एक प्रमुख घटक आहे जो अन्न उत्पादनाशी जोडलेला आहे. हे गरम किंवा थंड करण्याच्या उद्देशाने लोकांच्या ऊर्जेच्या गरजा देखील ठरवते. जलस्रोतांची उपलब्धता, बर्फ आणि बर्फाचे आवरण, पूर आणि दुष्काळ, वितरण आणि वनस्पती आणि प्राणी प्रजातींचे प्रकार यावरही हवामानाचा जोरदार परिणाम होतो. हे हवामान आणि वाळवंटीकरणाच्या घटनेशी देखील संबंधित आहे.

हवामान बदल:

पृथ्वीचे हवामान लाखो वर्षांपासून बदलत आहे, परंतु गेल्या दोन शतकांमध्ये झालेले बदल अत्यंत चिंताजनक आहेत. ते खालीलप्रमाणे :

1) जागतिक तापमान वाढत आहे. गेल्या शतकात जमिनीचे सरासरी तापमान 0.45-0.6C ने वाढले आहे.

2) गेल्या शतकात खंडांमध्ये पर्जन्यमान 1% वाढले आहे. उंचावरील भागात पावसात वाढ झाली आहे तर अनेक उष्णकटिबंधीय प्रदेशांमध्ये घट दिसून आली आहे.

3) समुद्राच्या पातळीत 15-20 सेंटीमीटरची वाढ दिसून आली आहे. थर्मल विस्ताराचे योगदान 2-7 सेमी आहे तर बर्फ वितळल्याने 2-5 सेमी वाढ झाली आहे.

हवामान बदलाचे परिणाम:

हवामान बदलाचे परिणाम हे अनेक अनिश्चितता आणि परिवर्तनीय बदल जसे की पर्जन्य, बाष्पीभवन, वादळे, समुद्र पातळी इत्यादींचा समावेश आहे. हवामान बदलावर परिणाम करणाऱ्या विविध घटकांच्या गुंतागुंतीच्या परस्परसंबंधांमुळे मानवी आरोग्य, परिसंस्था आणि शेतीवर होणारे परिणाम स्पष्टपणे दिसू लागले आहेत. हवामानात उन्हाळयात नैऋत्य मान्सून आणि हिवाळयात ईशान्य मान्सूनचे वर्चस्व असते. ते पर्जन्यवृष्टीवर परिणाम करतात जे शेती आणि घरगुती वापरासाठी पाण्याच्या उपलब्धतेशी जोडलेले असतात. उत्तर हिंद महासागर आणि उत्तर-पश्चिम प्रशांत महासागरातील उष्णकटिबंधीय चक्रीवादळांचा प्रादेशिक हवामानावरही परिणाम होतो. एल निनो सदर्न ऑसिलेशन (ENSO) या घटनेचा हवामान आणि समुद्र पातळीवरही प्रभाव आहे.

IPCC वर्किंग ग्रुप II च्या विशेष अहवालात खालील श्रेण्यांतील प्रभावांचे वर्णन केले आहे:

अ) पर्यावरणीय प्रणालींवर परिणाम:

आशियातील पर्वत आणि विमानांमधील परिसंस्था वरच्या दिशेने सरकतील अशी अपेक्षा आहे. उच्च उंचीवर, तणाच्या प्रजाती झाडे विस्थापित करतात. बृहत् हिमालयात मातीची धूप वाढेल आणि त्यामुळे वनस्पती बदलाचा वेग मंद असेल. निरोगी पर्जन्यवनांच्या वितरणात आणि वाढत्या पावसाळी जंगलात गुंतागुंतीचे बदल होतील.

तसेच अति थंडी, अति ऊन, अति पाऊस, दुष्काळ, गारपीट, वादळे, पूर, जमिनीची धूप, हिमनगांचे वितळणे या पर्यावरणीय घटनांचा विपरीत परिणाम मानवी जीवनाबरोबरच शेतीवर अधिक प्रमाणात होईल. समुद्राच्या पाण्याच्या तापमानात वाढ झाल्यामुळे प्रवाळ खडकांसारखी किनारपट्टीची परिसंस्था ब्लीच होऊ शकते. 1983 मध्ये ENSO कार्यक्रमादरम्यान अशीच घटना पाहण्यात आली जेव्हा इंडोनेशियातील प्रवाळ खडकांना गंभीर ब्लीचिंगचा सामना करावा लागला.

ब) शेतीवर परिणाम:

प्रदेशातील अनेक तृणधान्ये आणि वृक्ष पिके तापमान, ओलावा आणि CO2 एकाग्रतेतील बदलांच्या संदर्भात अभ्यास करतात. तांदूळ, गहू आणि ज्वारीचे उत्पादन CO2 च्या एकाग्रतेत वाढ होईल अशी अपेक्षा आहे परंतु वाढत्या हंगामात, पीक व्यवस्थापन, साठवण आणि वितरणामध्ये प्रदेशानुसार फरक असेल. उष्णकटिबंधीय आशियातील कृषी क्षेत्रे वारंवार पूर, दुष्काळ, चक्रीवादळ आणि वादळांना असुरक्षित आहेत ज्यामुळे जीवन, मालमत्तेचे नुकसान होते आणि कृषी उत्पादनावर परिणाम होतो. पर्यावरणीय घटनांचा विपरीत परिणाम मानवी जीवनाबरोबरच शेतीवर अधिक प्रमाणात होईल.

क) तापमान आणि पर्जन्यमानावर परिणाम:

असा अंदाज आहे की संपूर्ण प्रदेशात तापमानवाढीचा सामना केला जाईल परंतु त्याची व्याप्ती सरासरी ग्लोबल वॉर्मिंगपेक्षा कमी असेल. समुद्राच्या समीपतेमुळे प्रादेशिक भिन्नता निर्माण होईल. अशा प्रकारे, इंडोनेशिया, फिलीपिन्स, किनारपट्टी दक्षिण आशिया आणि इंडो-चीन मधील बेटे आणि किनारी भागात तापमानवाढ कमी असेल तर दक्षिण आशियातील जून ते ऑगस्ट वगळता दक्षिण आशिया आणि इंडो-चीनच्या खंडीय भागात ते सर्वात जास्त असेल. कमी तापमानवाढ होऊ शकते.

एप्रिल-सप्टेंबरमध्ये दक्षिण आशिया आणि भारत-चीन द्वीपकल्पात सर्वाधिक पाऊस पडेल परंतु इंडोनेशिया आणि ऑस्ट्रेलियाजवळ किमान असेल.

ड) किनारी क्षेत्रांवर परिणाम:

किनारी भागात, समुद्राच्या पातळीत वाढ आणि पावसाच्या वाढीमुळे पुढील परिणाम होतील:

1) जमिनीचे नुकसान आणि लोकसंख्येचे विस्थापन होईल.
2) सखल किनारी भागात पूरस्थिती वाढेल.
3) शेतीचे उत्पन्न आणि रोजगाराचे नुकसान होईल.
4) वालुकामय किनाऱ्यांची धूप झाल्याने महागड्या पर्यटनात घट होईल.

बांगलादेश, म्यानमार, व्हिएतनाम आणि थायलंडचे मोठे डेल्टा प्रदेश आणि इंडोनेशिया, फिलीपिन्स आणि मलेशियाचे सखल भाग किनारपट्टीच्या धूप होण्यास असुरक्षित आहेत; जमिनीचे नुकसान, सागरी पूर, पूर इ. अभ्यासानुसार, समुद्राची पातळी 1 मीटर वाढल्यास बांगलादेश, इंडोनेशिया, भारत आणि मलेशियामध्ये जमिनीचे नुकसान होईल.

जलविज्ञान आणि जलस्रोतांवर परिणाम:

आशिया खंडातील मॉन्सूनला पाण्याच्या उपलब्धतेसाठी हिमालय अत्यंत गंभीर आहे. तापमानात झालेली वाढ आणि पर्जन्यमानातील फरक यामुळे हिमनद्यांच्या मंदीला वेग येईल आणि पुराचा धोका वाढेल. नद्यांमधील शिखर प्रवाहातही वाढ होईल आणि त्या बदल्यात वाढलेल्या गाळाचा जलविद्युत निर्मिती, शेती आणि शहरी पाणीपुरवठ्यावर मोठा परिणाम होईल. बर्फाच्छादित नद्यांमध्ये अल्प कालावधीसाठी पाणी वाढेल परंतु दीर्घ कालावधीसाठी, कमी उपलब्धता आणि वाढत्या मागणीमुळे जलस्रोतांवर ताण येईल.

मानवी आरोग्यावर परिणाम:

जनुकीय व संसर्गजन्य रोगांचे प्रमाण वाढेल. हवामान बदलामुळे मलेरिया, डेंग्यू आणि शिस्टोसोमियासिसचा प्रसार वाढेल जे उष्णकटिबंधीय आशियातील मृत्यू आणि विकृतीचे कारण आहेत. नव्याने

बाधित झालेल्या भागात मृत्यूचे प्रमाण अधिक असेल. मलेरिया (12-27%), डेंग्यू (31-47%) आणि शिस्टोसोमियासिस (11-17%) साठी साथीची संभाव्यता वाढेल. त्याचप्रमाणे जलजन्य आणि पाण्याशी संबंधित संसर्गजन्य रोग देखील उच्च तापमान आणि उच्च आर्द्रता आणि जलसंकटामुळे कमी पाण्याच्या गुणवत्तेसह वाढ दर्शवतील.

सारांश:

या पेपरमध्ये हवामान बदल आणि त्यांचे समाज आणि संस्कृती, मानव आणि हरित पृथ्वीवरील जैविक जीवनावरील हानिकारक प्रभावांबद्दल जागरूक करण्याचा प्रयत्न केला आहे. त्यामुळे हवामान बदलाबाबत जागरूकता असली पाहिजे कारण भविष्यातील मानवी व पर्यावरणीय जीवन वाचविणे आज आपल्या हातात आहे, म्हणून पृथ्वी, मानवी सुरक्षा, समाज आणि संस्कृती यांचे रक्षण करण्याचा प्रयत्न करूया.

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राष्ट्रीय शिक्षा नीति–2020 के परिप्रेक्ष्य में माध्यमिक विद्यालय के शिक्षकों को तकनीकी उपयोग में आने वाली चुनौतियों का अध्ययन

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प्रस्तावना–

शिक्षा एक ऐसा संसाधन है जो मानव को जीवन जीने की कला का ज्ञान कराती है। इसीलिए समाज यह मानता है कि मनुष्य के जीवन के लिये शिक्षा एक आवश्यक एवं अनिवार्य कारक है। क्योंकि यदि मनुष्य के पास कुछ भी न हो केवल शिक्षा हो तब भी वह अपना जीवन यापन भली भांति कर सकता है क्योंकि शिक्षा मनुष्य को समाज में किस प्रकार बर्ताब करना है, किस प्रकार सम्बन्धों में मजबूती लानी है किस प्रकार जीवन में आने वाली कठिनाइयों से बचना है आदि के विषय में बताने का काम करती है। अनेक शिक्षाविदों ने शिक्षा को परिभाषित करते हुये कहा है कि –

महात्मा गाँधी ''शिक्षा से मेरा अभिप्राय बालक एवं मनुष्य के शरीर, मस्तिष्क एवं आत्मा के सर्वोत्तम की अभिव्यक्ति है।''
राधा कृष्णन ''शिक्षा को मनुष्य और समाज का निर्माण करना चाहिए। इस कार्य के किये बिना शिक्षा अनुर्वर और अपूर्ण है।''
स्वामी विवेकानन्द ''मनुष्य की अन्तःनिर्हित पूर्णता को अभिव्यक्त करना ही शिक्षा है।''
हरबर्ट स्पेसर ''शिक्षा का अर्थ अन्तःशक्तियों का बाहय जीवन में समन्वय स्थापित करना है।''

सोचने वाली बात यह है कि कोरोना जैसी महामारी में शिक्षा व्यवस्था को कैसे सुचारू रूप से चलाया जा सकता है तो बात आती है कि तकनीकी के माध्यम से एक ऐसी शिक्षा व्यवस्था का खाका तैयार किया जा सकता है जो प्रकृतिक आपदाओं कोरोना जैसी महामारियों में भी शिक्षा को व्यवस्थित रूप से संचालित करने में मद्द करेगी। क्योंकि वर्तमान समय के मनावों ने कोरोना की भयावह त्रासदी को देखा है, जब गलियां सूनी थी मौत का ताण्डव चल रहा था। सभी अपने, पराये हो गये थे लोग घर से निकलना नहीं चाहते थे। उन परिस्थितियों में भी शिक्षा व्यवस्था को जिन्दा रखने का काम किसी ने किया तो वह तकनीकी ही थी। इसीलिये अब भविष्य में समस्याओं से निपटने के लिए तकनीकी के सहयोग से शिक्षा की वैकल्पिक व्यवस्था को तैयार करना आवश्यक हो गया है।

तकनीकी–

जब शिक्षक अपने शिक्षण को प्रभावशाली बनाने के लिए विभिन्न तकनीकी संसाधनों की मदद लेता है जिससे शिक्षण और अधिगम दोनों प्रभावित होता है उसे तकनीकी कहते हैं। तकनीकी एक ऐसा विज्ञान है जो मानव जीवन के दैनिक प्रयोग में लाई जाने वाली विधियों का उपयोग करता है जिसका तात्पर्य यह है कि तकनीकी आम जीवन में उपयोग होने वाली विधियों का वैज्ञानिक रूप है।

इस सम्बन्ध में शिक्षाविदों ने अपने विचार निम्न रूप से प्रस्तुत किये हैं–

जकोटा ब्लूमर के अनुसार ''वैज्ञानिक अवस्थाओं तथा प्रविधियों का प्रयोगात्मक रूप ही तकनीकी विज्ञान है।''
अतः शोधकर्ता इसी विषय पर शोध कार्य करना चाहता है। क्योंकि 2020 की राष्ट्रीय शिक्षा नीत में इस विषय पर स्पष्ट कहा गया है। शिक्षा में तकनीकी का ज्यादा से ज्यादा उपयोग किया जाये। जिससे शिक्षा सस्ती और सर्व सुलभ हो सके।

वैसे इससे पहले भी कई शिक्षा नीतियां आयीं जो समय और आवश्यकता के अनुसार शिक्षा में परिवर्तन करने में सफल रही चाहे वह शिक्षा नीति 1968 हो, 1979 हो या फिर 1986 (संशोधित 1992) सब ने अपने समय और आवश्यकता के अनुरूप शिक्षा व्यवस्था में आवश्यक परिवर्तन करके बेहतर बनाने का काम किया इसी क्रम में निम्न शिक्षा नीतियां भारत में आयीं।

शिक्षा नीति–

शिक्षा नीति से तात्पर्य ऐसी नियमावली से है जो शिक्षा व्यवस्था को एक व्यवस्थित रूप से संचालित करने का प्रावधान करे तथा उसका ढांचा सुनिश्चित करते हुये आगे बढ़ाने का काम करें। दूसरे शब्दों में शिक्षा नीति से तात्पर्य ऐसे नियमों की श्रृंखला से है जो शिक्षा वयवस्था को ढांचागत रूप प्रदान करते हुये विकास के पथ पर आगे ले जायें।

राष्ट्रीय शिक्षा नीति 2020

राष्ट्रीय शिक्षा नीति 2020 का विजन भारतीय मूल्यों से विकसित शिक्षा प्रणाली है। जो सभी को उच्च गुणवत्ता शिक्षा उपलब्ध कराके भारत को वैश्विक ज्ञान महाशक्ति बनाने का प्रयास करेगी इस शिक्षा नीति ने बदलते परिवेश एवं आवश्कताओं के साथ शैक्षिक ढांचे में भी परिवर्तन करने का काम किया है। अब पूर्व की शिक्षा संरचना 10+2+3 के स्थान पर 5+3+3+4 लागू किया गया है।

राष्ट्रीय शिक्षा नीति 2020 के आधार सिद्धान्त–

1) हर बच्चे की विशिष्ट क्षमताओं की स्वीकृति, पहचान और उनके विकास हेतु प्रयास करना।
2) बुनियादी साक्षरता और संख्या ज्ञान को सर्वाधिक प्राथमिकता देना।
3) अवधारणात्मक समझ पर जोर देना।
4) बहु–भाषिकता पर जोर दिया जाएगा।
5) तकनीकी के यथा संभव उपयोग पर जोर दिया जाएगा।
6) सम्पूर्ण देश में 5+3+3+4 शिक्षा संरचना के आधार पर शिक्षा दी जाएगी।

माध्यमिक शिक्षा–

माध्यमिक शिक्षा के अन्तर्गत 9, 10, 11, 12 तक की शिक्षा को सम्मलित किया जाता है जो वास्तव में शिक्षा व्यवस्था की रीढ़ की हड्डी के समान है यह जहां एक ओर उच्चशिक्षा के रास्ते खोलती है। वही दूसरी ओर रोजगार परक पाठ्यक्रम के चयन में महत्वपूर्ण भूमिका निभाती है। माध्यमिक शिक्षा मानव जीवन के लिए उपयोगी तथा महत्वपूर्ण मानी जाती है। माध्यमिक शिक्षा हेतु माध्यमिक शिक्षा आयोग का गठन भी 1952 में मद्रास विश्वविद्यालय के कुलपति श्री लक्ष्मण स्वामी मुदालियर की अध्यक्षता में किया गया जिसने माध्यमिक शिक्षा के सुधार हेतु काफी काम किया। जिसे मुदालियर आयोग के नाम से भी जाना जाता है।

माध्यमिक शिक्षा के प्रकार–

माध्यमिक शिक्षा को दो भागों में बांटा गया है।

1) सरकार द्वारा वित्त पोषित माध्यमिक शिक्षा (सरकारी माध्यमिक शिक्षा)।
2) स्ववित्त पोषित माध्यमिक शिक्षा (गैर सरकारी माध्यमिक शिक्षा)।

माध्यमिक विद्यालय के शिक्षक–

माध्यमिक विद्यालय के शिक्षकों से तात्पर्य यह है कि वे शिक्षक जो माध्यमिक स्कूलों में शिक्षण कार्य करते हों अर्थात कक्षा 9, 10, 11, 12 को पढ़ाने में सक्षम हो ऐसे शिक्षकों को ही माध्यमिक शिक्षा के शिक्षक के रूप में जाना जाता है।

तकनीकी उपयोग में आने वाली चुनौतियॉ–

बात यदि माध्यमिक विद्यालय के शिक्षकों की, किया जाय तो यह कह सकते है कि आज की माध्यमिक शिक्षा में तकनीकी उपयोग की अनेक चुनौतियॉ है, खास कर शासन द्वारा पोषित शिक्षा व्यवस्था एवं शिक्षकों में जबकी तुलनात्मक रूप से निजी विद्यालय के शिक्षक तकनीकी उपयोग में उनकी तुलना में ज्यादा बेहतर है इसके अनेक कारण है, जिन्हे चुनौतियों के रूप में इस प्रकार समझा जा सकता है।

शिक्षकों में तकनीकी उपयोग के प्रति रूचि का अभाव–

वर्तमान समय में शिक्षा में तकनीकी के भरपूर उपयोग का समय है क्योंकि वर्तमान समय में तकनीकी आधारित शिक्षा को बढ़ावा दिया जा रहा है परन्तु यदि हम शिक्षकों की रूचि के विषय में कहे तो यह सच है कि जो शिक्षक वर्तमान समय में नयी नियुक्ति पाये है वह तो तकनीकी का भरपूर उपयोग कर रहे है परन्तु जो शिक्षक काफी पहले से काम कर रहे है उनके पास तकनीकी ज्ञान के अभाव के कारण तकनीकी उपयोग में रूचि की भी कमी है जो पूर्ण रूप से तकनीकी उपयोग में चुनौती के रूप में दिखायी देती है।

सेवारत शिक्षकों के प्रशिक्षण का अभाव–

वैसे तो तकनीकी का उपयोग तो बहुत पहले से शिक्षा में होता रहा है परन्तु केवल नाम मात्र का उपयोग ही होता रहा है वर्तमान समय में कोरोना के बाद से शिक्षा में तकनीकी के उपयोग को बढ़ावा मिला है परन्तु उसके सापेक्ष शिक्षकों को तकनीकी रूप से दक्ष बनाने के लिए सेवारत शिक्षकों के प्रशिक्षण की आवश्यकता है परन्तु इसमें कमी के चलते तकनीकी उपयोग में यह चुनौती के रूप में दिखायी देता है।

छात्रों में जागरूकता का अभाव–

वर्तमान समय में शहरी क्षेत्र के छात्र तो तकनीकी उपयोग में जागरूक एवं सक्षम दिखायी देते है परन्तु ग्रामीण क्षेत्रों में आज भी इस हेतु जागरूकता का अभाव देखा जा सकता है जिसके चलते शिक्षा में तकनीकी के उपयोग को पूर्ण रूप से लागू नही किया जा पा रहा है।

पर्याप्त संसाधनों का अभाव–

शिक्षा में तकनीकी उपयोग में आने वाली चुनौतियों की बात करें तो हम कह सकते है कि पर्याप्त संसाधनों का आभाव शिक्षा में तकनीकीकरण की सबसे बड़ी चुनौती है।

आधुनिक कक्षाओं का अभाव–

वर्तमान समय में शिक्षा में तकनीकी का यदि भारपूर उपयोग करना है तो यह पहली आवश्यकता है कि सभी स्कूलों में आधुनिक कक्षाओं की उपलब्धता सुनिश्चित की जाय अन्यथा तकनीकी उपयोग में यह भी एक बड़ी चुनौती के रूप में दिखायी देती है।

मानसिक तैयारी का अभाव–

यह एक बड़ी चुनौती है कि किसी कार्य को करने से पहले व्यक्ति को मानसिक रूप से उस कार्य को करने के लिए तैयार होना होता है परन्तु स्कूली शिक्षा के शिक्षकों में इसकी कमी दिखायी देती है जिसके चलते शिक्षा में तकनीकी के उपयोग में यह भी एक बड़ी बाधा है।

प्रशिक्षण का अभाव–

तकनीकी उपयोग हेतु सेवारत एवं सेवापूर्व सभी शिक्षकों को तकनीकी शिक्षा का क्रियात्मक एवं व्यवहारिक प्रशिक्षण दिया जाना चाहिए परन्तु वर्तमान समय में ऐसा ना होने के कारण यह एक बढ़ी समस्या या चुनौती बन गयी है।

आर्थिक समस्यायें–

आर्थिक समस्याओं की बात करें तो हम कह सकते है कि बिना अर्थ के तो तकनीकी उपयोग की कल्पना करना भी बेइमानी होगा क्योंकि अर्थ के आभाव में न संसाधन होगें और न ही प्रशिक्षण होगा। आज वर्तमान समय में सरकारे थोडा सा विचार इस ओंर करने लगी है परन्तु अर्थ के आभाव में अनेक कियाकलाप अधूरे है जिनकों एक चुनौती के रूप में देखा जा सकता है।

निष्कर्ष–

निष्कर्षतः हम कह सकते है कि शिक्षा में तकनीकी का उपयोग प्रारम्भिक तौर पर किया जा रहा है परन्तु अभी पूर्ण नही हुआ है पूर्ण होने के लिए उपरोक्त चुनौतियों को कम करना होगा तभी हम कह सकते है कि यह शिक्षा में पूर्णतया लागू हो पाएगा और आवश्यक हो जाता है कि इसके लागू होने के लिए शिक्षा व्यवस्था से जुड़े सभी लोगों को बराबर सहयोग करना होगा।

सुझाव–

सुझाव की बात करें तो हम कह सकते है यदि उपरोंक्त बिन्दुओं का समाधान खोज लिया जाए तो शिक्षा में तकनीकी उपयोग को बढ़ावा देते हुए शिक्षा में तकनीकी के उपयोग को पूर्ण रूप से लागू किया जा सकता है।

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गोषवारा-

"कॅशलेस अर्थव्यवस्था" ही एक आर्थिक यंत्रणा आहे ज्यामध्ये भौतिक चलना ऐवजी वस्तू आणि सेवा खरेदी करण्यासाठी आणि पैसे देण्यासाठी डिजिटल माध्यमांचा वापर आर्थिक व्यवहारात केला जातो. "कॅशलेस इकॉनोमी" हा शब्द जलद आर्थिक विकास सुनिश्चित करतो. ज्यामध्ये डेबिट सारख्या इलेक्ट्रॉनिक पेमेंट पद्धती, क्रेडिट कार्ड, इ-वॉलेट्स, इलेक्ट्रॉनिक धनादेश आणि थेट वायर रोख हस्तांतरण यांसारख्या माध्यमांतून प्रत्यक्ष रोख रकमेऐवजी कॅशलेस व्यवहार केले जातात. ज्यामध्ये छापील नोटांचा समावेश नसतो. जगामध्ये व्यवहारात रोखीचा सर्वाधिक वापर भारतात होतो. रोखीचा इतका जास्त वापर देशाची अनौपचारिक अर्थव्यवस्था मजबूत करतो त्यामुळे रोख व्यवहार बेहिशेबी होत असल्याने नेमकी आर्थिक वाढ ठरवता येत नाही. यावर उपाय म्हणून या प्रकारच्या अर्थव्यवस्थेची भारताला नक्कीच गरज आहे. ही व्यवस्था मोठ्या प्रमाणात अंमलात आणणे शक्य देखील आहे. भारतीयांमध्ये वाढलेला फोनचा वापर यासाठी अधिक उपयुक्त ठरणार आहेच! या अर्थव्यवस्थेमुळे आर्थिक व्यवहारांमध्ये पारदर्शकता,सुरक्षितता असेल आणि काळ्या पैशाला/गैरव्यवहारांना थांबवता येईल. या लेखात कॅशलेस व्यवहारांची माध्यमे, कॅशलेस अर्थव्यवस्थेचे भारतीय अर्थव्यवस्थेला होणारे फायदे त्याशिवाय या व्यवहारांना अंमलात आणताना निर्माण होणारी आव्हाने, सरकारद्वारे कॅशलेस व्यवहारांसाठी राबविण्यात येणारे विविध कार्यक्रम यांविषयी सखोल विश्लेषण केले आहे.

सूचनक शब्द (की-वर्ड्स)- कॅशलेस वित्तीय प्रणाली , ई-बँकिंग, अर्थव्यवस्था, सरकार, डिजिटल भारत

प्रस्तावना-

रिझर्व बँक ऑफ इंडिया आणि भारत सरकारने अर्थव्यवस्थेतील भौतिक चलनाचा प्रसार कमी करण्याच्या प्रयत्नात विविध डिजिटल पेमेंट उपकरणे आणि कार्ड्स यांसारख्या माध्यमांना प्रोत्साहन देत असल्याने भारतीय अर्थव्यवस्था गेल्या काही काळापासून कॅशलेस मॉडेलकडे वाटचाल करत आहे. सरकारने या पद्धतींचा अवलंब करण्यास प्रोत्साहन देण्यासाठी व्यक्ती आणि व्यवसायांना प्रवेश करून सोपी पावले उचललेली आहेत. भारतातील कॅशलेस अर्थव्यवस्थेकडे वळण्यामागील मुख्य कारणांपैकी एक म्हणजे काळ्या पैशाला आळा घालण्यासाठी आणि भ्रष्टाचार कमी करण्यासाठी सरकारचे प्रयत्न. डिजिटल पेमेंट पद्धती वापरून आर्थिक व्यवहारांचा मागोवा घेणे सोपे होते त्यामुळे करचोरी मनी लॉडरींग यांसारखे बेकायदेशीर व्यवहार करणे लोकांना अधिक कठीण होते. ८ नोव्हेंबर २०१६ रोजी भारत सरकारने ५०० आणि १००० रुपयांच्या सर्वोच्च मूल्यांच्या नोटांच्या चलनावर बंदी घातली. यामागील मुख्य उद्दिष्ट अर्थव्यवस्थेतील बनावट आणि काळ्या पैशाच्या प्रसाराला लढा देणे हे होते.

कॅशलेसच्या व्यापक वापराला प्रोत्साहन देण्यासाठी RBI ने जून २०१६ ला उपक्रम हाती घेऊन भारताच्या पेमेंट सिस्टीममध्ये २०१८ पर्यंत आधुनिकीकरण करण्याची वचनबद्धतेची पुष्टी केली आहे. २०१८ च्या RBI उपक्रमानुसार "कॅश शॉर्ट" सोसायटी तयार करण्यासाठी शक्य तितक्या लोकांनी इलेक्ट्रॉनिक पेमेंट करणे आणि वापरणे आवश्यक आहे ,याकरिता 5Cs (Coverage, convenience, Dependability, Convergence & Cost) हा कार्यक्रम राबविण्यात आला. यात चार महत्त्वाची उद्दिष्टे ठरविण्यात आली होती ज्यात प्रतिसादात्मक नियम, मजबूत पायाभूत सुविधा, प्रभावी देखरेख आणि मध्यवर्ती ठिकाण यांचा समावेश होता. २०१६ ते २०२४ पर्यंतच्या काळात मोठ्या प्रमाणात आर्थिक व्यवहारांमध्ये इलेक्ट्रॉनिक पद्धतीने व्यवहार करण्यास लोकांनी दिलेला प्राधान्यक्रम दिसून येत आहे.

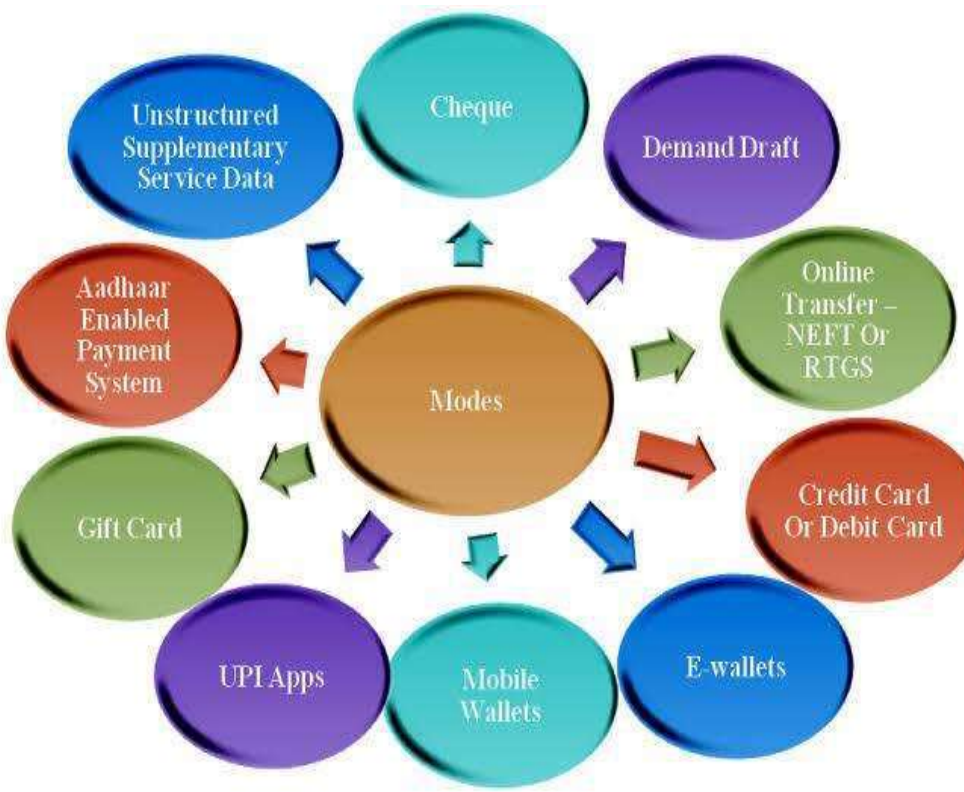
उद्दिष्टे-

1) कॅशलेस व्यवहारांच्या पद्धती जाणून घेणे.
2) अर्थव्यवस्थेतील कॅशलेस व्यवहाराचे फायदे आणि मर्यादा समजून घेणे.
3) कॅशलेस व्यवहारांसाठी सरकारद्वारे राबविल्या जाणाऱ्या विविध उपायोजना अभ्यासणे.

संशोधन पद्धती-

प्रस्तुत शोधनिबंधासाठी दुय्यम साधनसामग्रीचा वापर करण्यात आलेला असून यात माहिती संकलनाकरिता शोधप्रबंध, पुस्तके, मासिके, वर्तमानपत्रे, लेख, जर्नल्स आणि संबंधित संकेतस्थळांचा वापर केला आहे.

कॅशलेस व्यवहाराच्या पद्धती



1. धनादेश (cheque) :

जेव्हा रोख नसलेल्या व्यवहारांचा विचार केला असता चेक हा जुन्या पर्यायांपैकी एक आहे. बँकेला धनादेश प्राप्त झालेल्या रकमेमध्ये धनादेश पावतीवर लिहिला जातो आणि तो बँकेत जमा केला जातो.जेव्हा ग्राहक धनादेशाने व्यवहार करतो, तेव्हा धनादेशाने प्राप्त झालेली रक्कम ग्राहकाच्या खात्यावर जमा झाल्याचे दस्तऐवज बँकेकडे असते. बऱ्याचदा वेळेत न भरल्याने आणि चुकीच्या स्वाक्षरीमुळे धनादेश हस्तांतरण करण्यात अडथळा निर्माण होतो. तेव्हा या धनादेशाने व्यवहार न करता दुसऱ्या कॅशलेस पद्धतीने आर्थिक व्यवहार ग्राहक करू शकतो.

2. डिमांड ड्राफ्ट :

डिमांड ड्राफ्ट हा इलेक्ट्रॉनिक पेमेंटचा एक प्रकार आहे. डिमांड ड्राफ्टला मराठीत मागणी धनाकर्ष म्हणतात.डिमांड ड्राफ्ट हा एक प्रकारचा दस्तऐवज आहे जो एका संस्थेकडून दुसऱ्या संस्थेला किंवा एका व्यक्तीकडून दुसऱ्या व्यक्तीला पेमेंट करण्यासाठी वापरला जातो.डिमांड ड्राफ्ट घेण्यासाठी बँकेमध्ये जाण्याची आवश्यकता पडत नाही. बहुतांश घटनांमध्ये डिमांड ड्राफ्ट तेव्हा जारी केल्या जातो, जेव्हा पक्ष एक दुसऱ्यांना ओळखत नाही आणि

विश्वासाची कमी असते,म्हणून याच्या अंतर्गत पेमेंट करण्याच्या वेळी फसवणुकीची संभावना कमी असते.

3. ऑनलाइन ट्रान्सफर- NEFT आणि RTGS :

नॅशनल इलेक्ट्रॉनिक फंड ट्रान्सफर (NEFT) ही रिझर्व्ह बँक ऑफ इंडिया (RBI) च्या मालकीची आणि ऑपरेट केलेली देशव्यापी केंद्रीकृत पेमेंट प्रणाली आहे. NEFT द्वारे निधी हस्तांतरित करण्यास इच्छुक असलेली व्यक्ती/ फर्म/ कॉर्पोरेट ऑनलाइन निधी हस्तांतरण विनंती सुरू करण्यासाठी त्याच्या/तिच्या बँकेने ऑफर केलेल्या इंटरनेट/मोबाइल बँकिंग सुविधेचा वापर करू शकतात. RTGS चे पूर्ण रूप म्हणजे रिअल टाइम ग्रॉस सेटलमेंट. याद्वारे आपण सहजपणे मोठ्या प्रमाणात रक्कम किंवा निधी ऑनलाइन हस्तांतरित करू शकता. UPI मधील व्यवहार आणि मूल्याच्या मर्यादेमुळे मोठी रक्कम हस्तांतरित करणे शक्य होत नाही याद्वारे 2 लाख रुपयांहून अधिक ऑनलाइन ट्रान्सफर करता येतो

4. क्रेडिट कार्ड आणि डेबिट कार्ड :

हे पैसे हाताळण्याचे इलेक्ट्रॉनिक साधन आहे. भारतात डेबिट कार्ड व क्रेडिट कार्डचा वापर म्हणजेच प्लास्टिक मनी वापर कमी होता परंतु नोटबंदी नंतर क्रेडिट व डेबिट कार्डचा वापर मोठ्या प्रमाणात वाढलेला दिसून येतो. विविध प्रकारचे किरकोळ व्यापारी स्वाईप मशीन ग्राहकांना पेमेंट करण्यासाठी उपलब्ध करून देतात त्यामुळे ग्राहक या पद्धतीने आर्थिक व्यवहार करण्यास प्राधान्य देता.

5. ई- वॉलेट :

ई-वॉलेट हा एक प्रकारचा इलेक्ट्रॉनिक कार्ड आहे जो संगणक किंवा स्मार्टफोनद्वारे ऑनलाइन व्यवहारांसाठी वापरला जातो. त्याची उपयुक्तता क्रेडिट किंवा डेबिट कार्ड सारखीच आहे. पेमेंट करण्यासाठी व्यक्तीच्या बँक खात्याशी ई-वॉलेट लिंक केले जाते. ई-वॉलेट हा प्री-पेड खात्याचा एक प्रकार आहे ज्यामध्ये वापरकर्ता भविष्यातील कोणत्याही ऑनलाइन व्यवहारासाठी पैसे साठवू शकतो.ई-वॉलेटच्या मदतीने, किराणा सामान, ऑनलाइन खरेदी आणि फ्लाइट तिकिटांसाठी पेमेंट करता येते.

6. मोबाईल वॉलेट :

मोबाईल वॉलेट हे अगदी तेच आहे, एक वॉलेट जे तुमच्या खिशात न राहता तुमच्या स्मार्टफोनवरच राहते. तुमची क्रेडिट आणि डेबिट कार्ड माहिती बँकेकडे सुरक्षितपणे ठेवली जाते, ज्यामुळे तुम्हाला तुमच्या मोबाइल डिव्हाइसवरून लोक आणि विक्रेत्यांना पेमेंट करता येते, मग ते मॉल किंवा किराणा दुकानात असो. मोबाईल वॉलेट हे अधिक लोकप्रिय आधुनिक आर्थिक व्यवहारांचे साधन आहे.

7. UPI ॲप :

UPI हे २०१६ मध्ये नॅशनल पेमेंट्स कॉर्पोरेशन ऑफ इंडिया (NPCI) द्वारे लॉन्च केले गेले होते, ज्याचा उद्देश डिजिटल व्यवहारांना चालना देण्याचा सरकारी उपक्रम आहे. भारतात वेगाने होणाऱ्या डिजिटलायझेशनच्या पार्श्वभूमीवर, UPI (Unified Payments Interface) एक आर्थिक तंत्रज्ञान म्हणून उदयास आले आणि खरोखरच आर्थिक क्रांती घडवली. UPI पेमेंट ॲप्सनी भारतीयांच्या सर्व प्रकारच्या व्यवहारात क्रांती घडवून आणली आहे, ज्यामुळे पैसे पाठवणे, सर्व प्रकारची बिले भरणे आणि ऑनलाइन खरेदी करण्याचे अखंड आणि सुरक्षित मार्ग तयार झाले आहेत.

8. गिफ्ट कार्ड :

कॅशलेस व्यवहारांना चांगल्या देण्यासाठी बऱ्याचदा बँकांकडून कंपन्यांकडून किंवा व्यक्तींकडून गिफ्ट कार्ड दिली जातात. गिफ्ट कार्ड चा वापर खरेदीसाठी, मनोरंजनासाठी, जेवणासाठी तसेच ऑनलाइन खरेदीसाठी देखील करता येतो.

9. आधार सक्षम पेमेंट सिस्टीम (AEPS) :

ही एक इलेक्ट्रॉनिक पेमेंट सेवा आहे. AEPS प्रणालीचा उद्देश आधारद्वारे सर्वांसाठी आर्थिक आणि बँकिंग सेवा उपलब्ध करून समाजातील सर्व घटकांना सक्षम बनवणे आहे. AEPS ही एक आधार-सक्षम पेमेंट प्रणाली आहे ज्याद्वारे निधी हस्तांतरित करता येतो, पेमेंट करता येते, रोख रक्कम जमा करता येते, पैसे काढू शकतात, बँक शिल्लकची चौकशी करू शकतात.

10. भारत इंटरफेस फॉर मनी (BHIM App) :

हे नॅशनल पेमेंट्स कॉर्पोरेशन ऑफ इंडियाने विकसित केलेले एक असे ॲप आहे जे आपले सगळे आर्थिक व्यवहार सोपे आणि सुरक्षित करते.भारत डिजिटायझेशन आणि कॅशलेस अर्थव्यवस्थेकडे जात आहे तेव्हा समाजातील सर्व घटकांनी इंटरनेट बँकिंगच्या माध्यमातून मा. पंतप्रधान नरेंद्र मोदी यांनी ३० डिसेंबर २०१६ रोजी BHIM ॲप जाहीर केले. देशात होणारे कॅशलेस आर्थिक व्यवहार थेट बँकाद्वारे व्हावे हे याचे मूळ उद्दिष्ट आहे.

11. QR कोड :

QR कोड (Quick Response Code) हा अतिशय वेगाने काम करतो. काळ्या रंगाच्या बॉक्समध्ये एक पॅटर्न असतो. त्यामध्ये यूआरएल आणि मोबाईल नंबर लपवलेला असतो. जेव्हा ग्राहक तो बॉक्समधील कोड स्कॅन करता, तेव्हा त्या व्यक्तीचे डिटेल्स मोबाइलमध्ये येतात व पेमेंटचा पर्याय उपलब्ध होतो. जी रक्कम असेल,तेवढा आकडा टाकून पेमेंट करता येते. सध्याच्या युगात सर्व दुकानदार, विक्रेते यांच्यापासून तर अनेक कंपन्यांमध्ये पेमेंटसाठी QR कोडचा वापर केला जातो.

12. USSD कोड :

Unstructured Supplementary Service Data याचे (USSD) हे लघुरूप आहे. याला अनेकदा युएसएसडी कोड

असेही म्हंटले जाते. हा एक जीएसएम मोबाईल सेवा वापरातील भाग आहे. ही सेवा एसएमएस सेवेपेक्षा वेगळी आहे. युएसएसडी वापरून फोनसेवा देणाऱ्या कंपनीशी संपर्क साधून अतिरिक्त सेवा मिळवता येतात या सेवेचे अनेक उपयोग आहेत. प्रिपेड कॉलबॅक, मोबाईल पैसे देण्याची सुविधा, आपण जिथे असाल त्या स्थानाची माहिती मिळवणे तसेच फोन सेवेची वेगवेगळी सेटिंग्स निश्चित करणे यासाठी युएसएसडी कोड वापरले जातात. काही वेळा याद्वारे दिल्या जाणाऱ्या सेवांसाठी शुल्क आकारले जाते.

कॅशलेस अर्थव्यवस्थेचे फायदे

1) **जलद आर्थिक व्यवहार**:- कॅशलेस व्यवहारांमध्ये विविध प्रकारच्या ई बँकिंग सुविधा, चलन हस्तांतरण सुविधा, डेबिट कार्ड व क्रेडिट कार्ड सुविधा उपलब्ध असल्याने यांसारख्या सुविधांमुळे त्वरित आर्थिक व्यवहार होण्यास मदत होते. यामुळे शेतकरी, कामगार आणि लहान मोठ्या व्यवसायिकांना आर्थिक व्यवहार जलद गतीने करता येतात. त्यामुळे अनेक लोकांनी कॅशलेस व्यवहारांना स्वीकृती दिलेली दिसून येते.

2) **व्यवहारांतील पारदर्शकता**:- ऑनलाइन पद्धतीने आर्थिक व्यवहार होत असल्याने या सर्व व्यवहारांची नोंद पारदर्शक असते. त्यामुळे काळा पैसा आणि कर चुकवेगिरी यांसारख्या व्यवहारांना आळा बसतो. तसेच इलेक्ट्रॉनिक व्यवहार आणि प्लास्टिक मनीचा वापर होत असल्याने रोखीने व्यवहार कमी होतात त्यामुळे व्यवहारांमधील पारदर्शकता अचूक असते.

3) **करात/ महसूल वाढ**:- काळापैसा आणि भ्रष्टाचाराच्या समस्येमुळे सरकारला कर जमा करण्यात अनेक अडचणी येतात. नोकारदार वर्गाकडून सरकारला मोठ्याप्रमाणात कर जमा होत असतो.परंतू व्यावसायिक कर भरण्यापासून पळवाटा काढत असतात. आयकर व्यवहार ऑनलाईन झाल्याने सरकारला आणि लोकांना कर भरणाऱ्याची आणि चुकवणाऱ्याची माहिती ऑनलाईन उपलब्ध होते आणि आयकरापासून वाचण्याचा प्रयत्न करणाऱ्यांना लगाम घालता येतो.

4) **भ्रष्टाचार :-** भारतासारख्या अफाट लोकसंख्येच्या देशातील भ्रष्टाचारावर नियंत्रण ठेवणे कठीण आहे. भारतामध्ये मोठ्याप्रमाणात भ्रष्टाचार रोख स्वरूपात होतो. कॅशलेस अर्थव्यवस्थेमुळे अशा भ्रष्टाचाराला आळा बसण्यास मदत होईल. सरकारी खात्यातील अधिकारी लाच ही रोख स्वरूपात घेतात परंतू डिजिटल ट्रांजेक्शनमुळे सरकारी खात्यातील पैसांच्या उलाढालीची माहिती मिळवणे सर्वसामान्य लोकांना सहज सोपे होते.

5) **आर्थिक समावेश**:- कॅशलेस अर्थव्यवस्थेमुळे सरकारला किमान वेतन कायद्यावर लक्ष देता येणार आहे. ज्या ठिकाणी बँकिंगच्या सुविधा नाहीत अशा ठिकाणी ई-पेमेंट किंवा मोबाइल बँकिंगच्या माध्यमातून सहज व्यवहार करता येणे शक्य होईल. तसेच कल्याणकारी योजनांचा निधी लाभार्थ्यांच्या खात्यात सहज जमा होण्यास देखील मदत होईल आणि पारदर्शकता टिकून राहील.

6) **वेळ आणि खर्चाची बचत**:- वेळ आणि खर्चाच्या दृष्टिकोनातून ऑनलाइन आर्थिक व्यवहार हे एक प्रकारे अर्थव्यवस्थेला मिळालेले वरदानच आहे. डिजिटल माध्यमांच्या साह्याने आर्थिक व्यवहार केल्यामुळे प्रतीक्षा करणे आणि खर्चिक व्यवहार होणे टाळता येते.

कॅशलेस अर्थव्यवस्थेच्या मर्यादा -

1) भारताचा साक्षरता दर कमी असल्याने बहुसंख्य लोक निरक्षर आहे त्यामुळे त्यांना कॅशलेस व्यवहारांबाबत माहिती नाही. बँक खाते नसलेल्या आणि अनभिज्ञतेमुळे बँक खाते उघडण्याची भीती बाळवणाऱ्यांची संख्या मोठी आहे.

2) कॅशलेस व्यवहार करण्यासाठी लागणारी तांत्रिक साधने मर्यादित आहेत. शिवाय मोबाईल, लॅपटॉप डेटा कनेक्शन आणि इंटरनेट महाग झाले असल्यामुळे या व्यवहारांना कुठेतरी मर्यादा येते. भारताला कॅशलेस अर्थव्यवस्था बनवण्याच्या मार्गात उपकरणांची कमतरता हा एक मोठा अडथळा आहे यात शंका नाही.

3) सायबर सुरक्षा हे आणखी एक कारण आहे जे कॅशलेस अर्थव्यवस्थेसाठी प्रमुख अडथळा बनत आहे बऱ्याचदा कोणत्याही प्रमानिकरणाशिवाय बनावट व्यवहार होण्याचा धोका असतो. त्यामुळे या व्यवहारांना मर्यादा येतात.

4) भाजीपाला, फळे, पुस्तके, औषधे इत्यादी दैनंदिन गरजा भागवण्यासाठी बऱ्याचदा रोखीच्या व्यवहारांचा वापर केला जातो. लहान विक्रेत्यांना ऑनलाइन पद्धतीने व्यवहार करण्यासाठी डिजिटल साधने किंवा वॉलेट वापरणे कठीण होते. बऱ्याचदा हे व्यवहार क्लिष्ट आणि गुंतागुंतीचे असल्यामुळे यांच्या वापरावर मर्यादा येतात.

5) कॅशलेस व्यवहार व्यापक पातळीवर अजूनही पाहिजे तेवढे पोहोचू शकले नाही अशी अनेक ठिकाणी आहेत जिथे कर, टोल किंवा दंड जसे की टोल टॅक्स, पार्किंग शुल्क, ग्रीन टॅक्स रोख स्वरूपात भरला जातो. तथापि, Fast tag ने कॅशलेस अर्थव्यवस्थेच्या दिशेने काही नावीन्यपूर्ण बदल घडवून आणले असले तरी या व्यवहारांना मर्यादा येतात.

6) कॅशलेस व्यवहार ग्रामीण भागापर्यंत अजूनही पोहोचू शकलेले नाही. इंटरनेट सुविधा आणि पायाभूत सुविधा

यांचा अभाव असल्याने ग्रामीण भागात कॅशलेस व्यवहार न करता रोखीने व्यवहार स्वीकृत केले जातात.

कॅशलेस अर्थव्यवस्थेसाठी भारत सरकारच्या विविध उपायोजना

1. नोटबंदी :-

सरकारकडून मोठ्या मूल्याच्या नोटांची नोटबंदी झाल्यानंतर काळा पैसा अजूनही अस्तित्वात आहे. पण भारताने स्वतःला "Cashless Society" बनवण्याच्या दिशेने ढकलले आहे. कॅशलेस अर्थव्यवस्था बनवण्याच्या दिशेने हि एक मूलगामी **"क्रांती"** झाली आहे. नोटाबंदीनंतर पेटीएमचा दैनंदिन वापर सरासरी ३ दशलक्ष व्यवहारांवरून ५ दशलक्षपर्यंत वाढला आहे. तसेच नोटाबंदीनंतर पहिल्या दोन दिवसात जमा झालेल्या रकमेत १०००% वाढ झाली आहे. याशिवाय ई वॉलेट नुसार जमा झालेल्या रकमेत १५००% ने वाढ झालेली दिसून येते.

2. प्रधानमंत्री जनधन योजना :-

सन २०१४ मध्ये राबविण्यात येणाऱ्या जगातील सर्वात महत्वकांक्षी आर्थिक समावेशन कार्यक्रमांपैकी भारतातील प्रधानमंत्री जनधन योजना एक मोठे पाऊल आहे. देशातील सर्व नागरिकांसाठी बँकिंग सुविधा उपलब्ध करून देणे हे या योजनेचे मुख्य उद्दिष्ट आहे. देशातील सर्व नागरिकांना बँकिंग सेवांचा लाभ मिळावा आणि आर्थिक समावेशन व्हावे या दृष्टिकोनातून ही योजना राबविण्यात येत आहे. ही योजना लोकांना विविध प्रकारच्या आर्थिक सेवांमध्ये प्रवेश मिळवण्याची हमी देते, जात पैसे बचत करण्याच्या संधीचा समावेश आहे, बँक खाते उघडणे समाविष्ट आहे, लोकांच्या वास्तविक गरजांवर दिले जाणारे कर्ज यात समाविष्ट आहे. ही योजना देशातील कमी उत्पन्न गटातील लोकांना बँकिंग सेवा देण्यासाठी उपयुक्त ठरली आहे.

3. थेट लाभ हस्तांतरण योजना (DBT) :-

भारतातील नागरिकांना सरकारी अनुदाने आणि इतर देयके मिळतील याची खात्री करण्यासाठी सरकारने थेट लाभ हस्तांतरण योजना सुरू केली आहे. सरकारच्या विविध कल्याणकारी योजनांमध्ये ही योजना कार्यान्वित आहे.ज्यात LPG सबसिडी , वृद्धपकाळात निवृत्तीवेतन, शिष्यवृत्ती आणि मनरेगा योजना यांचा समावेश आहे. या योजनेमुळे देशाच्या ग्रामीण भागात डिजिटल बँकिंग व्यवस्थेला लोकांकडून स्वीकृती मिळालेली दिसून येते.

4. Digishala - एज्युकेशनल5555 टीव्ही Channel फोर डिजिटल पेमेंट्स ऑन दूरदर्शन :-

डिजीशाला हे एक मोफत दूरदर्शन DTH चायनल भारत सरकार प्रक्षेपित करत असते. या कार्यक्रमाद्वारे देशातील नागरिकांना डिजिटल पेमेंट चे फायदे तसेच ते वापरण्याच्या पद्धती शिकविल्या जातात.UPI, USSD, AEPS, ई- वॉलेट, डेबिट कार्ड्स, क्रेडिट कार्ड्स यांचा वापर कसा करावा ? हे शिकविले जाते. या कार्यक्रमाद्वारे ग्रामीण भागातील लोकांपर्यंत डिजिटल पेमेंटच्या विविध माध्यमांची माहिती या कार्यक्रमाद्वारे पोहचवण्यात येत आहे. ज्यामुळे कॅशलेस अर्थव्यवस्थेचा प्रसार होण्यास मोठ्या प्रमाणावर वाढ होईल.

भारतातील कॅशलेस व्यवहारांत झालेली वाढ

भारतात १९८० च्या दशकात क्रेडिट कार्डच्या वापरातून ई-कॉमर्स ला सुरुवात झाली.मोबाईल फोन, इंटरनेट आणि डिजिटल पेमेंट पद्धती वापरणाऱ्या लोकांच्या संख्येत देशभरात लक्षणीय वाढ झाली आहे. वाढत्या गरजेनुसार नवीन कंपन्या या क्षेत्रात कार्यरत झाल्या. सन २०१० पासून भारतात कॅशलेस व्यवहारांतील वाढ व्यावसायिक दृष्टिकोनातून झालेली दिसून येत आहे. भारताच्या किरकोळ डिजिटल व्यवहारांमध्ये सन २०१२-१३ मध्ये डिजिटल व्यवहारात १६२ कोटी पर्यंत वाढ होऊन ती सन २०२३-२४ मध्ये १४,७२६ कोटींपर्यंत पोहोचलेली आहे. जगातील एकूण डिजिटल व्यवहारांमधील भारताचा वाटा ४६% आहे.

निष्कर्ष

या संशोधनातून असे दिसून येते की, भारत सरकारची कॅशलेस अर्थव्यवस्थेकडील वाटचाल महत्वपूर्ण आणि सकारात्मक आहे. कॅशलेस वित्तीय प्रणालीला लोकांचा मोठ्या प्रमाणावर प्रतिसाद आहे. भारतातील कॅशलेस पेमेंटच्या मुख्य समस्या म्हणजे सायबर गुन्हे तसेच ग्राहकांच्या माहितीचा अधिकृतपणे वापर यामुळे गुन्हेगारी आणि फसवणूक यांसारख्या समस्या निर्माण होतात. असे असले तरी डिजिटल पेमेंट पद्धतीमुळे बेकायदेशीर आणि अनधिकृत मार्गाने होणाऱ्या आर्थिक व्यवहारांना आळा बसतो. एकंदरीत, अशा गैरप्रकारांना रोखण्यासाठी इंटरनेट सुरक्षितता बळकट बनवणे महत्त्वपूर्ण आहे.ग्राहक आणि लहान व्यावसायिक या दोघांसाठी कॅशलेस व्यवहाराच्या अंमलबजावणीशी संबंधित जोखीम आणि अडचणी मोठ्या प्रमाणात आहेत, याचे प्रमुख कारण म्हणजे ग्रामीण भागातील कमी साक्षरता दर होय. सरकारला कॅशलेस पेमेंट प्रणाली वापरण्याबद्दल अधिक जनजागृती करणे आवश्यक आहे. संभाव्य धोक्यांबद्दल ग्राहकांमध्ये जागृतता

वाढविण्यासाठी सरकार प्रयत्नशील आहे. कॅशलेस व्यवहारांमुळे भारतीय अर्थव्यवस्थेच्या विकासात वाढ झाली आहे. त्यामुळे देशातील प्रत्येक नागरिकाला डिजिटल आर्थिक व्यवहार करता येणे आवश्यक आहे. देशातील कॅशलेस व्यवहारांमध्ये वाढ होण्यासाठी सरकार नेहमीच प्रयत्नशील असताना दिसून येते आहे.

संदर्भ-

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21वीं सदी में महिलाओं की राजनीति में भूमिका

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सारांश–

महिलाओं का राजनीति में भागीदार होना 21वी. सदी में एक महत्वपूर्ण अध्ययन है। आज के युग में किसी भी देश का समग्र विकास व प्रगति उस देश की महिलाओं के राजनीति में सक्रिय होने का महत्वपूर्ण परिचायक होता है। महिलाओं में पर्याप्त क्षमता व शक्ति तथा योग्यता होने के बावजूद, सामाजिक, आर्थिक, राजनीतिक व सांस्कृतिक क्षेत्रों में उनकी भूमिका, भागीदारी का कम होना, कमजोर स्थिति तथा सहभागिता पर प्रश्न चिन्ह लगाता है। भारत में महिलाओं की राजनीतिक क्रियाशीलता को जानने के लिये यदि हम प्राचीन काल का अध्ययन करे ं तो भारत में पूर्व वैदिक काल में मातृ–सत्तात्मक परिवार थे, परन्तु धीरे–धीरे मध्यकाल तथा आाधुनिक काल में भारत में महिलाओं की स्थिति बिगड़ती गयी। भारत के स्वाधीनता आन्दोलन में महात्मा गांधी के विशेष प्रेरणा व प्रोत्साहन से महिलायें देश की राजनीति में आगे आई। वर्तमान में महिलाओं का राजनीति में भागीदार होना इतने वर्षों बाद भी बहुत कम संख्या में है। राजनीति के क्षेत्र में महिलाओं की स्थिति समय, काल व परिस्थिति के अनुसार बदली है। महिलाएं राजनीति में अपने हिस्से का आसमां लेने के लिये बहुत प्रयास कर रही है। परन्तु वर्तमान में भी महिलाओं को वो स्थान नहीं दिया जाता। जो कि उनके सर्वागीण विकास हेतु आवश्यक है। चाहे वो विश्वविद्यालय स्तर पर हो, चाहे वो राजनीति के क्षेत्र में, चाहे ग्रामीण क्षेत्र में या फिर शहरी क्षेत्रों में हो, सभी में महिलाओं को कम प्रतिनिधित्व ही मिला है। जबकि कहा यह जाता है कि महिलाएं पुरूषों से किसी भी क्षेत्र में पीछे नहीं है। आज हमने 21वीं सदी में प्रवेश तो कर लिया है, हमारी सोच महिलाओं के प्रति बहुत हद तक बदली तो है परन्तु आज भी बहुत कुछ करने की कमी है। महिलाओं को पर्याप्त समर्थन नहीं मिल पाता है, जिसकी वजह से वह राजनीति के क्षेत्र में आगे नहीं बढ पाती हैं। जब भी महिलाओं को महत्वपूर्ण व जिम्मेदारी देने की बात उठती है, तो अक्सर शीर्ष नेता महिलाओं को योग्य नहीं मानते व कहते है कि उनमें क्षमता नहीं है, इसलिये राजनीति क्षेत्र को पुरूषों का क्षेत्र माना जाता है। तथापि राजनीति के क्षेत्र में कुछ महिलाओं ने स्वयं अपनी एक महत्वपूर्ण पहचान बनाई हैं, जिसमें श्रीमती इंदिरा गांधी का देश के सर्वोच्च पद पर आसीन होना तथा राष्ट्रीय व अन्तर्राष्ट्रीय क्षेत्र में श्रीमती विजय लक्ष्मी पंडित एवं सरोजनी नायडू आदि महिला राजनीति में जाग्रति का एक शुभ संकेत है। इनके अतिरिक्त सोनिया गांधी, श्रीमती सुषमा स्वराज, सुश्री उमा भारती, ममता बनर्जी, गिरजा व्यास, मेनका गांधी, सुमित्रा महाजन, मारगेट अल्वा, सुश्री बहन मायावती, श्रीमती प्रतिभा देवी सिंह पाटिल, श्रीमती स्मृति ईरानी आदि महिलाएं अपनी मेहनत, लगन, साहस, संघर्ष व अपनी सुझ–बुझ से आगे बढ़ी है। लेकिन राजनीति में महिलाओं की कमी है जिन्हें आसानी से उंगलियों पर गिना जा सकता है। 21वीं सदी में महिलाओं के लिये कुछ आरक्षण का (50 प्रतिशत) बिल लोकसभा में लम्बे समय तक अटके रहना इस बात की ओर संकेत करता है कि कोई भी राजनैतिक पार्टी उसके लिये तैयार नहीं है और केवल ऊपरी तौर पर सभी पार्टियां महिलाओं को आगे लाने के लिये प्रयासों का दिखावा ही करती आई है। राजनीति का क्षेत्र भले ही महिलाओं के लिये सुनिश्चित नहीं हो पा रहा है तथापि भारतीय महिलाएं आज भी अपने को सक्रिय रूप में लेकर राजनीति में प्रयास कर रही है। अतः महिलाओं को राजनीति के क्षेत्र में सक्रिय होकर स्वयं ठोस कदम व आर्थिक स्तर में सुधार करके अपने को राजनीति में आगे लाना होगा व राजनीति में महिलाओं की सशक्त व अर्थपूर्ण भूमिका आवश्यक है। इसके लिये पुरूष प्रधान समाज व राजनेताओं को भी सहयोग देना होगा। ताकि महिलायें राजनीति के क्षेत्र में अपनी भूमिका निभा सके।

Keywords: - सहभागिता, राजनीतिक स्थिति, भागीदारी, राजनीतिक सक्रियता

प्रस्तावना–

भारतीय समाज में महिलाओं की भूमिका परिवार का पालन–पोशण, परिवार की वृद्धि या घरेलू काम–काज तक सीमित मानी जाती रही है, परन्तु यह भी सत्य है कि समय–समय पर महिलाओं ने जीवन के हर क्षेत्र में अपनी अविस्मरणीय उपस्थिति दर्ज करवाई है। चाहे वह वैदिक काल का समय हो, महाभारत, रामायण काल की गांधारी, कुन्ती, सीता हो, चाहे भक्तिकाल की मीराबाई हो, मुगल काल की रजिया सुल्तान या पदमावती, शिवाजी की माता जीजाबाई हो, चाहे वो स्वतन्त्रता आन्दोलन पूर्व काल की रानी लक्ष्मीबाई हो, या फिर स्वतन्त्रता आन्दोलन काल की सरोजनी नायडू, ऐनी बसेन्ट, कस्तूरबा गांधी हो या वो वर्तमान समय में विजयलक्ष्मी पंडित, सुचेता कृपलानी, इंदिरा गांधी, सोनिया गांधी, प्रतिभा देवी सिंह पाटिल या सुशमा स्वराज हो। भारतीय जीवन क्षेत्र चाहे वह सामाजिक हो या राजनैतिक इन महिलाओं ने उसमें मुख्य भूमिका निभाई है। भारतीय समाज में महिलाओं की स्थिति समय, काल के अनुसार मजबूत और प्रतिष्ठापूर्ण रही है। वैदिक समाज में महिलाओं को पर्याप्त स्वतन्त्रता थी और मनु महाराज ने मनु स्मृति में नारी का विवेचन करते हुए स्पष्ट लिखा है किः–''यत्र नारियस्तु पूज्यन्ते, रमन्ते तत्र देवता।'' अर्थात् जहाँ नारियों की पूजा होती है वहाँ देवता निवास करते हैं। परन्तु वर्तमान समय में विश्व में नारी की अपरोक्ष भूमिका तब तक सिद्ध नहीं हो सकती है जब तक कि शासन तन्त्र

में महिला की योग्यताओं का उपयोग न हो। दूसरे शब्दों में वर्तमान समय में किसी भी देष की राजनीति में महिला की भूमिका जितनी सशक्त है उतना ही वह देश महिला सशक्तिकरण के मामले में आगे माना जायेगा।

इस शोध पत्र का उद्देश्य महिलाओं का विभिन्न आयामों से यश–ज्ञान करना न होकर वर्तमान समय में राजनैतिक पटल पर महिलाओं की स्थिति का विश्लेषण करना व इसकी कमियों को उजागर करना तथा सुझाव प्रस्तुत करना है। अतः हम विषय–वस्तु की सीमाओं को ध्यान में रखते हुए मुख्य विषय को रेखांकित करेंगे। सर्वप्रथम हम पूरे विश्व में महिलाओं की राजनैतिक स्थिति पर नजर डालें तो पायेगें कि अधिकतर देश राजनीतिक क्षेत्र मे महिलाओं को उनका उपयुक्त स्थान व प्रतिनिधित्व देने में नाकाम रहे हैं। यदि विश्व के विभिन्न देशों की राजनीति में महिला प्रतिनिधित्व की बात की जाये तो रवाँडा में 56 प्रतिशत, स्वीडन में 46 प्रतिशत, क्यूबा में 43 प्रतिशत, फिनलैण्ड में 42 प्रतिशत, अर्जेटीना में 40 प्रतिशत हैं। इसके अतिरिक्त अनेक यूरोपियन देशों में महिलाओं की राजनैतिक भागीदारी 30 प्रतिशत से अधिक हैं। यहां पर एक बात ध्यान देने योग्य है कि समानता की बात करने वाले साम्यवादी देशों में भी महिलाओं का राजनीति में स्थान विशेष नहीं है। क्यूबा में यह सबसे अधिक 26 प्रतिशत, चीन में 21 प्रतिशत, DPR कोरिया में 15.6 प्रतिशत महिला प्रतिनिधित्व है। दूसरी ओर ऐसी ही समान स्थिति विकसित देशों की है। कनाडा में 22 प्रतिशत, यू.के. में 20 प्रतिशत और यू.एस.ए. में 17 प्रतिशत महिलायें इन देशों में राजनैतिक प्रतिनिधित्व करती है। अब यदि हम सार्क की बात करे तो नेपाल में 33 प्रतिशत, पाकिस्तान में 22.5 प्रतिशत, बांग्लादेष में 12 प्रतिशत राजनैतिक प्रतिनिधित्व महिलाओं का है, जो कि भारत की स्थिति (10 प्रतिशत) से काफी अधिक है और यह विश्व के सबसे बड़े लोकतन्त्र देश के लिये चिन्तनीय विषय है। महिलाओं के राजनैतिक प्रतिनिधित्व के मामले में भारत का स्थान विश्व में 105वां है। 543 सदस्यों वाली लोकसभा में मात्र 60 महिला सांसद व 240 सदस्यों वाली राज्यसभा में मात्र 24 महिला सांसद भारत में महिलाओं की दयनीय राजनैतिक स्थिति का वर्णन करती है। पड़ोसी देशों में केवल श्रीलंका व म्याँमार ही महिला प्रतिनिधित्व के मामले में भारत से पीछे है, जो कि क्रमशः 129 वें व 134 वें स्थान पर है। यहाँ पर एक ही बात भारत के पक्ष में कुछ सन्तुश्टि दायक हैं कि विष्व के आठ देशों सऊदी अरब, कतर, बिलाइज, पलाऊ, माइक्रोनेशिया, नौरू, व सोलोमन, आइसलैण्ड में एक भी महिला राजनीति में भागीदारी नहीं करती थे किसी भी देश में महिलाओं की राजनीति में भागीदारी 21वीं सदी में महिला सशक्तिकरण का एक महत्वपूर्ण पैमाना हो सकता है। भारत में स्वतन्त्रता से लेकर अब तक महिलाओं की राजनैतिक स्थिति पर एक दृष्टि डालें तो देश के राजनीतिक परिदृश्य में पहले से ही महिलाओं का होना यद्यपि कम रहा है परन्तु वर्तमान में महिलाओं में राजनैतिक चेतना का विकास तेजी से हो रहा है। सन् 1930 में पहली बार महिलाओं को मताधिकार मिला। यद्यपि हमारे भारतवर्ष में महिलायें महत्वपूर्ण पदों पर आसीन हैं तथापि राजनीति में महिलाओं की भागीदारी में अधिक सुधार नहीं हो पा रहा है। इस विषय में संविधान निर्माता समिति के अति महत्वपूर्ण सदस्य डॉ. बी. आर. अम्बेडकर का मानना हैं कि ''न्यायपूर्ण व्यवस्था न्यायपूर्ण विधान के बिना स्थापित नहीं हो सकती। अभिप्राय यह है कि जब तक किसी समाज में न्याय का वितरण समाज के प्रत्येक व्यक्ति तक समुचित और समान रूप से नहीं होगा तब तक एक न्यायपूर्ण व्यवस्था का खड़ा किया जाना असम्भव है और न्यायपूर्ण वितरण के लिये हमें एक न्यायपूर्ण विधान व्यवस्था को अपनाना पड़ेगा। उपर्युक्त विश्लेषण से यह तो निर्विवाद रूप से सिद्ध है कि राजनैतिक क्षेत्र में महिलाओं की कमी एक समस्या है, जो कि कई वर्षो से समाधान की खोज में है, परन्तु अनेकों बार प्रयास करने के उपरान्त भी स्थायी रूप से समस्या बनी हुई है और हल नहीं हो पा रही है। यहाँ संक्षिप्त रूप में इस समस्या के कारणों पर विचार करना उपर्युक्त होगा। महिलाओं की राजनीति में अनुपस्थिति के कारण देश की ताजा जनगणना सन् 2011 के अनुसार महिलाओं की शैक्षणिक स्थिति काफी चिन्ताजनक है। देश में पुरूष साक्षरता दर 82.14 प्रतिशत और महिला साक्षरता दर मात्र 65.46 प्रतिशत बनी हुई है। महिला साक्षरता दर को बढ़ाने के लिए उनमें जागरूकता व संगठित होने की आवश्यकता है। वर्तमान समय के पुरूष प्रधान समाज में भारतीय महिलाओं की स्थिति काफी दहलाने वाली बनी हुई है। 21वी. सदी के दषक में प्रवेश करने के बाद भी लोग 15–16 वीं सदी में जीवन व्यतीत कर रहे है। आज आर्थिक सशक्तिकरण के इतने प्रयासों के बाद भी सच यह है कि कुछ शिक्षित व जागरूक महिलाएँ ही सरकारी योजनाओं का लाभ उठा रही हैं, जबकि अशिक्षित व ग्रामीण एवं निम्न वर्ग की महिलाओं की स्थिति ज्यों की त्यों है। आज भ्रूण हत्याएं, गर्भ परीक्षण की दुकान पर जन्म से पूर्व ही खात्में की कोशिश, बाल विवाह, दहेज, बलात्कार, मौन हिंसा, अत्याचार, शोषण, बेटी को उच्च शिक्षा का अभाव भारतीय समाज में विद्यमान है। इसी तरह महिला विवाह, तलाक, उत्तराधिकार, गोद लेने की प्रकिया जैसे महत्वपूर्ण मुद्दों पर पुरूष के समान महिलाओं को अधिकार प्राप्त नहीं है। महिलाओं के लिये सारे विश्व में 'अन्तर्राष्ट्रीय महिला दिवस' प्रत्येक वर्ष 8 मार्च को मनाया जाता है। यह दिवस 1975 से मनाया जा रहा है। जिसमें वर्ष 2014 की थीम है– ''Equality for women is Progress for all.'' अर्थात् महिलाओं के लिये समानता सबकी प्रगति है। इस दिन यद्यपि बड़े–बड़े कार्यक्रम होते है, लेकिन इन कार्यक्रमों के बारे में किसी प्रकार की कोई सूचना उन महिलाओं तक नहीं पहुँच पाती है जिनको इनकी आवश्यकता होती है। इस प्रकार का प्रत्येक प्रयास कुछ गिनी चुनी व उच्च स्तर तक शिक्षित महिलाओं की बपौती बनकर रह गया है। महिलाओं के लिये क्या किया जा रहा है, कौन कर रहा है, यह सब न तो ज्यादात्तर महिलाओं को पता है, न ही उनके परिवार वालों को, तो इससे यही स्पष्ट होता है कि महिलाओं में अभी तक वो जागरूकता नहीं आ सकी है जितने कि प्रयास किये गये है। महिलाओं के निर्णयों की योग्यता को सामाजिक नजरिये से कम आँका जाता है। महिलाओं पर काम के अधिक बोझ के साथ–साथ लैंगिक भेदभाव के कारण उनका राजनीति में आना रूकावट पैदा करता है। यूनिसेफ की रिर्पोट के मुताबिक संसद और विधान मंडलों में महिलाओं की भागीदारी ब उनकी अरूचि का कारण बनता है। इसके अलावा भारत में रूचि सोच कुछ काम नहीं आती है और वह राजनीति से अपना पल्ला झाड़ लेती है। भारत की राजनीति में महिलाओं की भागीदारी कम होने के पीछे अब तक समाज में पितृसत्तात्मक ना, महिलाओं द्वारा महिलाओं का शोषण, महिलाओं पर विभिन्न धार्मिक दबाव इत्यादि। परन्तु देश में प्रथम आम चुनाव 1952 से लेकर 2014 में महिलाओं की

राजनीति में भागीदारी ब C C बढ़ी है, जो कि प्रासंगिक है। स्वतन्त्रता प्राप्ति से लेकर अब तक राजनीति के क्षेत्र में अपनी जगह बनाने वाली महिलाओं पर गौर करें तो अनेक महिलाओं ने भारत की राजनीति में सशक्त योगदान दिया है। कुछ महत्वपूर्ण चहेरों का जिक्र करना यहाँ पर प्रासंगिक होगा, जिन्होंने राजनीति में महिलाओ की भूमिका को सशक्त किया है।

इंदिरा गांधी–

इंदिरा गांधी विश्व राजनीति की लौह महिला व प्रियदर्शिनी गांधी के नाम से विख्यात है। इंदिरा गांधी भारत की पहली महिला प्रधानमंत्री बनी। वह वर्ष 1965 से लेकर 1984 तक के समय में तीन बार प्रधानमंत्री रही। देश को अधिक मजबूत और सषक्त बनाने के लिए इंदिरा गांधी ने कई प्रयास भी किए। इसके अलावा देष मे ं पहला परमाणु परीक्षण करने का श्रेय भी मुख्य रूप से इंदिरा गांधी को ही जाता है।

सुचेता कृपलानी

सुचेता कृपलानी वर्ष 1953 में उत्तर प्रदेश की पहली महिला मुख्यमंत्री बनीं। सुचेता स्वतन्त्रता सैनानी के साथ संविधान सभा के लिये चुनी जाने वाली कुछ महिलाओं में शामिल थी। इसके अलावा वह कई उपसमितियों में भी शामिल रहीं जिन्होंने स्वतंत्र भारत का संविधान तैयार किया।

विजयलक्ष्मी पंडित–

विजयलक्ष्मी पंडित वर्श 1953 में संयुक्त राष्ट्र संघ आमसभा की पहली भारतीय और महिला अध्यक्ष बनी थीं। वर्ष 1962–1964 में वह महाराष्ट्र की राज्यपाल तथा वर्ष 1964–1968 तक उत्तर प्रदेश के फूलपुर से सदस्य भी रहीं।

सरोजनी नायडू–

सरोजनी नायडू को 'भारत कोकिला' भी कहा जाता है। वह आजादी से पहले संयुक्त प्रांत की राज्यपाल थी व आजादी से पहले वह कांग्रेस पार्टी की अध्यक्ष भी रही एवं स्वतंत्रता के बाद वह भारत की पहली महिला राज्यपाल बनीं। इन्होंने स्वतंत्रता संग्राम में भी भाग लिया था।

प्रतिभा देवी सिंह पाटिल–

19 दिसम्बर 1934 को बॉम्बे प्रेसीडेन्सी के नडगांव में जन्मी श्रीमति प्रतिभा देवी सिंह पाटिल 2007 में देष की 12 वीं व प्रथम महिला राष्ट्रपति बनी। इससे पहले वह 2004 में राजस्थान की 24 वीं राज्यपाल भी थी।

मीरा कुमार–

श्रीमति मीरा कुमार 2009 में देश की प्रथम महिला लोकसभा अध्यक्ष बनीं। श्रीमति मीरा कुमार पेशे से एक वकील व इससे पहले 2004 में वह मनमोहन सरकार में सामाजिक न्याय और सषक्तिकरण मंत्री भी रही।

सोनिया गांधी–

सोनिया गांधी 1998 से लगातार कांग्रेस पार्टी की अध्यक्ष हैं। सूचना का अधिकार कानून और मनरेगा लागू कराने में उनकी बड़ी भूमिका रही है।

सुषमा स्वराज–

सुषमा स्वराज वर्तमान में विदेश मंत्री के पद पर आसीन है। वह लोकसभा में विपक्ष की नेता भी रह चुकी है। सुषमा स्वराज वर्ष 1998 में दिल्ली की पहली मुख्यमंत्री भी बनी थी और उनका कार्यकाल मात्र दो महीने का ही रहा था। वह अटलबिहारी वाजपेयी सरकार में भी मंत्री थी।

सुमित्रा महाजन–

देश की लगातार दूसरी महिला लोकसभा अध्यक्ष श्रीमति सुमित्रा महाजन को यह पद दलगत राजनीति से ऊपर उठकर प्राप्त हुआ है। सुमित्रा जी 1989 से लेकर लगातार 8 बार इंदौर से सासंद रही है व 2002 से 2004 तक वह केन्द्रीय राज्य मंत्री के रूप में मानव संसाधन, सूचना प्रोद्योगिकी एवं संचार मंत्री रही।

मायावती–

मायावती को वर्ष 1977 में बसपा के संस्थापक कांशीराम ने मायावती को राजनीति में आने के लिए प्रेरित किया था। उत्तर प्रदेश से मायावती बहुजन समाज पार्टी से चार बार मुख्यमंत्री रह चुकी है। वर्तमान मे भी राजनीति में सक्रिय रूप से मूल भूमिका में हैं।

ममता बनर्जी–

ममता बनर्जी पश्चिम बंगाल की पहली महिला मुख्यमंत्री हैं। उन्होंने राज्य से वाम दलों के 34 वर्षीय राज को खत्म किया। वह देश की पहली महिला रेल मंत्री भी रही। उन्होंने राजनीति कैरियर की शुरूआत कांग्रेस से की तथा वर्ष 1997 में अलग होकर तृणमूल कांग्रेस बनाई।

महिलाओं की स्थिति को सुधाने के लिए सरकार द्वारा किये गये प्रयास भारत में महिलाओं के लिये राष्ट्रीय महिला–शिक्षा समिति 1958, राष्ट्रीय महिला शिक्षा परिषद 1959, हंसा मेहता समिति 1962, राश्ट्रीय शिक्षा नीति 1986 आदि का गठन किया गया। 20 वीं शताब्दी के प्रथम दशक में महिलाओं ने यह महसूस किया कि उनका एक सामाजिक संगठन होना जो महिला जगत के उत्थान के लिये कार्य कर सके यह भी अनुभव किया गया कि यह संगठन महिलाओं के द्वारा ही संचालित किया जाय। इस तरह 1910 और 1920 के मध्य अनेक कार्य किये गये। इनमें मुख्य हैं– महिला समिति, वीमन्स इण्डियन एसोसियेशन, (1917) एवं 1920 में अखिल भारतीय महिला परिषद की स्थापना बम्बई में की गई। इन महिला संगठनों के पीछे सुधारवादी आन्दोलन की प्रेरणा समाहित हैं, जिसने महिलाओं को घर से निकलने की प्रेरणा दी, उन्हें जागरूक बनाया। ए.आर.देसाई का विचार है कि, ''सामाजिक अस्तित्व की स्थिति में जो समाज सुधार आन्दोलन उद्भव हुए, उनका एक लक्ष्य यह भी था कि भारतीय नारी जिन सामाजिक और न्यायिक विशमताओं एवं अनीतियों की शिकार है, उन्हें दूर किया जाय''। संविधान संशोधन द्वारा महिलाओं को 1992 में 73 वें 1993 में 74 वें संशोधन के द्वारा 33 प्रतिशत राजनैतिक आरक्षण दिया गया तथा लगभग 15 लाख महिलाओं को ग्राम पंचायतों तथा शहरी निकायों के चुनावों में भागीदारी का अवसर प्रदान किया गया। यहाँ पर एक तथ्य अत्यन्त रूचिकर है कि पश्चिम बंगाल लोकल बॉडीज में महिला प्रतिनिधित्व 40 प्रतिशत व केरला में 35 प्रतिशत हो गया है जो कि आरक्षित कोटे को पार कर गया है। इसी विषय में 108 वाँ संविधान संशोधन बिल जो कि महिलाओं को लोकसभा और सभी राज्यों की विधानसभाओं में 33 प्रतिशत सीट आरक्षित कर देगा, राज्यसभा में 9 मार्च 2010 को पास हो चुका है परन्तु लोकसभा में अभी भी लटका हुआ था। महिलाओं का प्राप्त राजनीतिक अधिकार का असर सोलहवीं लोकसभा के चुनावों में खूब दिखा। जिसमें कैबिनेट मंत्रियों में एक चौथाई जगह महिलाओं को मिली। मंत्रिमंडल में मुस्लिम समुदाय से नजमा हेपतुल्ला को जगह दी गई। 45 सदस्यों में 7 महिलाओं को जगह मिली हैं। उनमें 6 कैबिनेट मंत्री हैं। यह भी संयोग ही है कि लोक सभा चुनाव में इस बार सबसे बुजुर्ग नजमा हेपतुल्ला (74) और सबसे युवा स्मृति

ईरानी (38) भी शामिल हैं। 16वीं कैबिनेट में महिलाओं की संख्या में अप्रत्याशित वृद्धि की गई है, जिसमें सुषमा स्वराज को विदेश मंत्रालय, उमा भारती को गंगा और नदियों की सफाई अभियान मंत्रालय, स्मृति ईरानी को मानव संसाधन विकास मंत्रालय, मेनका गांधी को महिला एवं बाल कल्याण मंत्रालय, नजमा हेपतुल्ला को अल्पसंख्यक मंत्रालय, हरसिमरत कौर बादल खाद्य सुरक्षा मंत्रालय एवं सुमित्रा महाजन को लोकसभा अध्यक्ष का पद मिला है। जो कि महिलाओं के लिये सराहनीय है।

निष्कर्ष–

उपर्युक्त विश्लेषण से एक बात मुख्य रूप से निकलकर सामने आती है कि न सिर्फ भारत में बल्कि सम्पूर्ण विश्व में महिलाओं की राजनैतिक स्थिति सुधारने के लिये विशेष प्रयास नहीं किये गये। भारत में भले ही महिलाओं की राजनैतिक स्थिति सुधारने के लिये कुछ अच्छे प्रयास किये गये हैं, परन्तु फिर भी बहुत कुछ करने की आवश्यकता है। पंचायती राज में 33 प्रतिशत महिला आरक्षण का इतनी देरी से पास होना तथा लोक सभा व विधान सभा में अभी तक भी इस बिल का पास न होना इस बात का परिचायक है कि महिलाओं की राजनैतिक भागीदारी बढ़–चेगें बल्कि उनका राजनीति में पूरा समर्थन देना चाहिए। साथ ही साथ मतदाओं को पुरूष और महिला प्रत्याशी में भेद न करके दोनों को समान समझकर मतदान करना चाहिये। इस शोध पत्र के माध्यम से हमारा यह प्रयास है कि हम महिलाओं के राजनैतिक पिछड़ेपन को उजागर कर सके तथा इसमें अपेक्षित सुधार का संदेश दे सके।

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'રમકડાં અને બાળમાનસ: એક વિકાસાત્મક અધ્યયન'

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સારાંશ:

આમ તો મનોવિજ્ઞાન એ માનવી અને પ્રાણીના વર્તન અને માનસિક પ્રક્રિયાઓનો અભ્યાસ કરે છે તેમજ તેના વર્તન વિશે આગાહી પણ કરે છે પરંતુ બાળકના મનોજગતને જાણવા તેના રમકડાંઓ કેવા છે તે એક આધારભૂત બાબત બની શકે છે. બાળકના જન્મ બાદ ઘોડિયા પર લટકાવેલ ઘૂઘરો કે કોઈ રંગબેરંગી વસ્તુથી માંડીને બાળક જેમ જેમ મોટું થતું જાય તેમ તેમ ઢીંગલા-ઢીંગલી કે યાંત્રિક રમકડાં અને આધુનિક યુગમાં મોબાઈલ ફોનનો રમકડાં તરીકેનો ઉપયોગ તેના માનસ અને વર્તન વિશે ઘણી નિર્ણાયક બાબતો સૂચવી જાય છે. બાળવિકાસના વિવિધ તબક્કાઓ દરમ્યાન પણ રમકડાની પસંદગી બાળકના વિવિધ પ્રકારના વિકાસની પ્રક્રિયા પર પણ અસર કરે છે.

રમકડાં અને બાળ-માનસ :

બાળક સમજતું થાય છે અને વસ્તુઓ વચ્ચે ભેદ પરખ કરતું થાય છે ત્યારે જાતિગત ભિન્નતાઓને (છોકરો કે છોકરી)ને આધારે તેના રમકડાંઓની પસંદગી કરવામાં આવે છે. જો છોકરી હોય તો તેને ઢીંગલી, સુંવાળા કપડામાંથી બનાવેલ રમકડા અને બીજા અન્ય નાજુક રમકડાં જ રમવા માટે આપવામાં આવે છે જ્યારે બીજી તરફ છોકરા માટે દડો, યાંત્રિક રમકડા, પ્લાસ્ટીકની બંદૂક વગેરે જેવા રમકડાં રમવા માટે આપવામાં આવે છે જે આપણા સામાન્ય જનમાનસને પ્રદર્શિત કરે છે.

બાળકના માનસને જાણવા તેની સમક્ષ તમામ રમકડાં મૂકી દેવા જોઈએ જેમાંથી તે પોતાની પસંદગી મુજબ રમકડાં પસંદ કરે છે જે કાલક્રમે તેની વિવિધ પ્રકારની વિકાસ અવસ્થાઓનું નિર્ધારણ કરે છે. બાળક આકર્ષક રંગો અને આકૃતિઓ ધરાવતા રમકડાં તરફ ઝડપથી આકર્ષિત થાય છે. પરંતુ હા, રમકડાંની પસંદગીમાં બે બાબત ખાસ ધ્યાન રાખવી જોઈએ. જેમાં એક બાબત એ કે રમકડાં બાળકની અલગ-અલગ વયઅનુસાર અલગ અલગ હોવા જોઈએ. અને બીજું કે બાળકને નુકસાન થાય અથવા શારીરિક ઈજા થાય તેવા પ્રકારના રમકડાંઓ ક્યારેય બાળકને ન આપવાં જોઈએ. રમકડાં એ માત્ર બાળકના મનોરંજન માટે નથી હોતા, પરંતુ એક પ્રકારના પ્રશિક્ષણ સ્વરૂપે હોય છે. જે તેની લાગણીઓને સમજવા અને વિવિધ રીતે વિકાસ પ્રક્રિયામાં મદદરૂપ બને છે.

રમકડાં અને પ્રત્યાયન કૌશલ્ય :

રમકડાં દ્વારા બાળક માત્ર મનોરંજન જ મેળવતું નથી પરંતુ પરોક્ષ રીતે સામાજીકરણની પ્રક્રિયામાં પણ ભાગ લેતું થાય છે. પાડોશના બાળકો સાથે મળી રમકડાં રમતી વખતે બાળક વિવિધ ભાષાકીય પ્રત્યાયનો શીખે છે, સાથે સાથે વિવિધ સ્નાયવિક કૌશલ્યો પણ બાળક રમકડાં દ્વારા રમતાં રમતાં શીખે છે. બાળકનું મોટાભાગનું શિક્ષણ અને વર્તન એ અનુકરણાત્મક હોય છે માટે તેને એવા પ્રકારની રમતોમાં સામેલ કરવું જોઈએ જેના દ્વારા તેની બહુવિધ વિકાસ પ્રક્રિયાને વેગ મળે.

દિવ્યાંગ બાળકો તેમજ માનસિક સમસ્યાઓ ધરાવતાં બાળકો માટે રમકડાની પસંદગી કરવી એ અઘરું કાર્ય છે પરંતુ આધુનિક વિજ્ઞાન અને ટેક્નોલોજીને કારણે એ કાર્ય પણ સરળ બન્યું છે. આવા દિવ્યાંગ બાળકો માટે સામાન્ય બાળકો માટેના રમકડાંની તુલનામાં કદ, વજન અને સંવેદનશીલતા અંગેની ખાસ વિશેષતા ધરાવતા હોય તેવા રમકડાંની પસંદગી કરવામાં આવે તો બાળક વિવિધ સ્નાયવિક કૌશલ્યો ઝડપથી શીખે છે. ઉપરાંત લાંબાગાળે સામાન્ય બાળકો સાથેની રમતોમાં સામેલ થતાં બાળક ક્ષોભ કે સંકોચ અનુભવતું નથી. તેનામાં અભિવ્યક્તિ કૌશલ્યોનો વિકાસ ઝડપથી થવા લાગે છે

રમકડાં અને બોધાત્મક વિકાસ :

સ્વીસ મનોવૈજ્ઞાનિક જ્યાં પીયાજે એ બાળકના બોધાત્મક વિકાસ અંગેની વિસ્તૃત માહિતી આપી છે.બાળકની વિચારણાની પ્રક્રિયા પુખ્ત વયની વ્યક્તિની વિચારણાથી ભિન્ન હોય છે. જીન પીયાજેએ બોધાત્મક વિકાસના નીચે મુજબના ચાર તબક્કાઓ દર્શાવ્યા છે.

૧.સાંવેદનીક કારક તબક્કો

૨.પૂર્વ ક્રિયાત્મક તબક્કો

૩.મૂર્ત ક્રિયાત્મક તબક્કો

૪.અમૂર્ત ક્રિયાત્મક તબક્કો

સાંવેદનીક કારક તબક્કો:

જન્મથી ૨ વર્ષ સુધીના તબક્કાને સાંવેદનીક કારક તબક્કો કહે છે, કારણકે આ તબક્કા દરમ્યાન બાળક વિવિધ ચેષ્ટાત્મક વર્તન અને સંવેદનો વચ્ચેનો સંબંધ શોધે છે. આ સમયગાળામાં બાળક પોતાનું શરીર અને તેની આસપાસના વાતાવરણથી ભિન્ન છે તેવું શીખે છે. તે પોતાના શરીર પર થતા વિવિધ સંવેદનો અને ચેષ્ટાત્મક વર્તન વચ્ચેનો સંબંધ બાંધે છે. બાળક દૃશ્ય, શ્રાવ્ય, સ્વાદ, સ્પર્શ અને સૂંઘવાના કૌશલ્યો સ્થાપિત થતા તે કઈ ક્રિયા ક્યારે કરવી અને ક્યારે ન કરવી તે શીખે છે.

૬ માસનું બાળક રમકડું પકડવાનો પ્રયત્ન કરે છે. જો આ સમયે રમકડાને ઢાંકી દેવામાં આવે તો બાળક તેમાંથી રસ ગુમાવી દે છે.આ ક્રિયામાં બાળક કોઈ આશ્ચર્ય કે બેચેનીનો ભાવ દર્શાવતું નથી પરંતુ, આઠ માસનું બાળક જો રમકડાથી રમતું હોય અને રમકડાને ઢાંકી દેવામાં આવે તો તે કપડાને દુર કરવાનો પ્રયત્ન કરે છે, જે દર્શાવે છે કે બાળકમાં 'સ્થાઈત્વના ખ્યાલનો' વિકાસ થયો છે. જ્યાં સુધી બાળકમાં આ ખ્યાલનો વિકાસ થયો ન હોય ત્યાં સુધી બાળક એમ માને છે કે જે વસ્તુ દેખાતી નથી તે વસ્તુનું અસ્તિત્વ જ નથી.

બે વર્ષનું બાળક અનુકરણ કરીને ઘણી ક્રિયાઓ શીખી જાય છે તે ક્રિયાને ઉલટ-સુલટ કરી શકે છે. દા.ત. તોડવું અને જોડવું. ઉંચે લઇ જવું અને નીચે લાવવું આ ક્રિયાઓ બાળકનો જ્ઞાનાત્મક વિકાસ દર્શાવે છે.

પૂર્વ ક્રિયાત્મક તબક્કો:

૨ થી ૭ વર્ષના સમયગાળાને પૂર્વ ક્રિયાત્મક તબક્કો કહે છે. અહી બાળકે કરેલી માનસિક ક્રિયાનું નિરિક્ષણ કરવામાં આવે છે. આ તબક્કામાં બાળક પદાર્થના આકાર અને તેની ગોઠવણને ધ્યાનમાં રાખે છે. ચાર વર્ષનું બાળક પદાર્થનો બાહ્ય દેખાવ સરખો હોય, તો પદાર્થ સરખો છે એમ સમજે છે.દા.ત. માટીના બે સરખા વજનના ગોળા સાથે મુકવામાં આવે તો તે તેમને સરખા માની લે છે, પરંતુ તેમાંથી એક ગોળનો આકાર લંબગોળ બનાવી દેવામાં આવે તો બાળક લંબગોળ આકારના ગોળાને વધારે વજનવાળો ગોળો સમજી લે છે.

એકસરખા વજનનું દૂધ ધરાવતાં બે પ્યાલામાંથી એક પ્યાલાનો આકાર ટૂંકો છતાં પહોળો હોય અને બીજા પ્યાલાનો આકાર ઉભા ઘાટનો હોય, તો ચાર વર્ષનું બાળક ઉભા ઘાટના પ્યાલાનું દૂધ વધારે સમજે છે. આકાર લાંબો હોય એટલે તે તેને વધારે વજનવાળો ગણે છે. સાત વર્ષના બાળકમ તર્કક્રિયા અને કાલ્પનિક વિચારણાનો વિકાસ થયેલો હોય છે. તેથી તે જુદો આકાર હોવા છતાં તેને એકસરખા વજનના સમજે છે. પ્રતીકો અને સંજ્ઞાના ઉપયોગ વડે વિચાર કરવાની શક્તિનો વિકાસ એ આ તબક્કાની નોંધપાત્ર બાબત છે. પ્રતિક કોઈ પદાર્થ કે વ્યક્તિનું પ્રતિનિધિત્વ કરે છે.દા.ત. ઢીંગલી એ બાળકનું પ્રતિક છે, પરંતુ તે સંજ્ઞા નથી. પરંતુ ટ્રાફિક સિગ્નલની લાઈટ એ એક સંજ્ઞા છે.

મૂર્ત ક્રિયાત્મક તબક્કો:

સાતથી બાર વર્ષના સમયગાળાને મૂર્ત ક્રિયાત્મક તબક્કો કહેવામાં આવે છે. સાત વર્ષની ઉપરના બાળકને વજન, કદ અને દળમાં થતા ફેરફારની સમજ પડે છે. બાળકમાં સંખ્યાત્મક અને અમૂર્ત વિચારણાની શક્તિનો આ ઉંમરે વિકાસ થાય છે. આ બધી પ્રક્રિયા પદાર્થલક્ષી હોય છે. આ તબક્કામાં બાળક ભૌતિક પદાર્થોનો વિચાર કરી શકે છે. પરંતુ અમૂર્ત ખ્યાલ અંગે તે તર્ક કરી શકતું નથી. બાળક નજરે જોઈ શકાય તેવા પ્રશ્નોના ઉત્તરો આપી શકે છે. પરંતુ અહિંસા, આત્મા, પરમાત્મા, પ્રામાણિકતા વગેરે ખ્યાલો સમજી શકતું નથી. તે જુદી જુદી લંબાઈની લાકડીઓ લાઈનમાં ગોઠવી શકે છે. આમ, ભૌતિક પદાર્થોને લાગતો ખ્યાલ તેનામાં સારી રીતે વિકસે છે.

અમૂર્ત ક્રિયાત્મક તબક્કો:

આ તબક્કાની શરૂઆત ૧૨ વર્ષ પછી થાય છે.આ તબક્કામાં અમૂર્ત તર્ક કરવાની શક્તિનો વિકાસ થાય. સ્વચ્છતા, સ્વાતંત્ર્ય, લોકશાહી વગેરે ખ્યાલોને તે સમજે છે. સદૃષ્ટાંત સમજુતી મેળવી શકે છે. આ તબક્કામાં તે વિવિધ વિષયોનું તર્કબદ્ધ જ્ઞાન મેળવી શકે છે.

આધુનિક રમકડું – મોબાઈલ :

જ્યારે રમકડાંના મનોવૈજ્ઞાનિક મહત્વની વાત થતી હોય ત્યારે સર્જનાત્મક રમકડાઓના દુશ્મન એવા મોબાઈલની નિષેધક અસરોને ભૂલી ન શકાય. વર્તમાન ટેક્નોલોજીના યુગમાં બાળકોમાં મોબાઈલ રૂપી રમકડાંનું દૂષણ એટલી હદ સુધી વ્યાપી ગયું છે કે જેની દૂરોગામી અસરોને ટાળવી મુશ્કેલ છે. અત્યારના આધુનિક યુગમાં હવે બાળકોમાં રમકડાંનું સ્થાન મોબાઈલે લઈ લીધું છે. માત્ર શારીરિક જ નહી પરંતુ માનસિક રીતે પણ આનો પ્રભાવ બાળકો પર પડે છે. બાળકો ધીમે ધીમે વિવિધ રમતોની જગ્યાએ મોબાઈલના વ્યસની બનતા જાય છે જે સમાજ માટે તેમજ માતા-પિતા માટે ચેતવણીરૂપ બાબત છે. મોબાઈલે બાળકોની વિચારશક્તિને સિમિત બનાવી દીધી છે. મોબાઈલ ફોનના રેડિયેશનની બાળકોના મસ્તિષ્ક પર ખૂબ જ ખરાબ અસર થાય છે જેથી શક્ય બને તો ત્યાં સુધી બાળકોને મોબાઈલ ફોનથી દુર

રાખવા જ હિતાવહ છે. જ્યારે બાળકોના મસ્તિષ્ક પર મોબાઈલનું ભૂત સવાર નહીં થવા દઈએ ત્યારે જ બાળક અન્ય રમકડાં પ્રત્યે આકર્ષિત થશે.

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आधुनिक काळातील मूल्य शिक्षण विषयक बदलते दृष्टिकोन: सामाजिक व शैक्षणिक भूमिका

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सारांश

व्यक्ती आणि समाजाचा घटक म्हणून संयुक्तिक वाटेल असे ज्ञान, कौशल्य, कृती, मूल्ये आणि वर्तनरचना याचा समावेश शिक्षणात होतो म्हणून योग्य दिशेने परिवर्तनाची प्रक्रिया म्हणजे शिक्षण असे म्हटले जाते. सृजनशीलता, सामाजिक न्याय, राष्ट्रीय एकता, शास्त्रीय दृष्टी, स्वातंत्र्य, समाजवाद, धर्मनिरपेक्षता, लोकशाही ही मानवी मूल्ये आहेत, त्यात चांगल्या जीवनाच्या संकल्पना आहेत. शिक्षण प्रक्रिये मार्फत या मानवी मूल्यांची अभिव्यक्ती व्हावी अशी अपेक्षा असते. शिक्षण हे उद्दिष्टये, अभ्यासक्रम आणि पध्दतीतून जोडलेले असते. शिक्षणाद्वारेच मानवी समाज आपल्या मूल्यांचा ठेवा मिळवितो, जतन करतो आणि वाढवितो. सध्याच्या परिस्थितीत मूल्य शिक्षण हा राष्ट्रीय पातळीवर नव्हे तर जागतिक पातळीवरचा एक चिंतनाचा विषय झाला आहे. समाजाने समाजाची रचना करतांनाच काही मूल्ये जोपासली व वाढविली. ही मूल्ये नसती तर समाज कधीच रसातळाला गेला असता. शास्त्राच्या विकासामुळे मानवाचा व मानवी समाजाचा भौतिक विकास झाला. भौतिक विकासाबरोबर मानवी जीवन सुखी, समृध्द व सुरक्षित होईल अशी अपेक्षा होती. पण तसे घडले नाही याचे प्रमुख कारण म्हणजे भौतिक विकासाबरोबर नैतिक मूल्यांचा विकास झाला नाही. समाजातील आवश्यक मूल्यांची घसरण व मूल्यांचा ऱ्हास ही आजची वस्तुस्थिती आहे. या नैतिक मूल्यांच्या ऱ्हासाला वेळीच बंधने घातले नाही तर मानव जातीचे भवितव्य धोक्यात येईल. अशी जाणीव विचारवंताच्या मनात झाली आणि या जाणीवेतून नैतिक व आधुनिक मूल्यांचे शिक्षण द्यावयाचा विचार सुरु झाला. बदलणाऱ्या सामाजिक गरजा आणि विचारप्रवाह यासोबत मूल्य शिक्षण विषयक दृष्टिकोनही बदलत गेले आहेत. काळानुसार मुल्यांची व्याख्या बदलली. त्यामुळे मूल्य शिक्षण देण्याच्या पद्धतीही बदलणे गरजेचे झाले आहे.

मुख्य संबोध: मूल्य शिक्षण, शास्वत मुल्ये, सर्वांगिण विकास, सामाजिक नियंत्रण, मूल्य शिक्षणाची गरज, शैक्षणिक उपक्रम, सुयोग्य सामाजीकरण, मानवी एकात्मता

प्रास्ताविक:

मानवी जीवनास हितकारक व पोषक अशा गोष्टी बिंबवण्याचे, रुजविण्याचे प्रयत्न ज्या शिक्षणातून केले जातात त्यास मूल्य शिक्षण असे म्हणतात. आपल्या विचारांना, भावनांना आणि कृतिला चांगल्या जीवनाच्या संकल्पना अपेक्षित असतात. वर्तनात परिवर्तन घडवून आणणे ही शिक्षणाची प्रक्रिया आहे. व्यक्ती आणि समाजाचा घटक म्हणून संयुक्तिक वाटेल असे ज्ञान, कौशल्य, कृती, मूल्ये आणि वर्तनरचना याचा समावेश शिक्षणात होतो म्हणून योग्य दिशेने परिवर्तनाची प्रक्रिया म्हणजे शिक्षण असे म्हटले जाते. सृजनशीलता, सामाजिक न्याय, राष्ट्रीय एकता, शास्त्रीय दृष्टी, स्वातंत्र्य, समाजवाद, धर्मनिरपेक्षता, लोकशाही ही मानवी मूल्ये आहेत, त्यात चांगल्या जीवनाच्या संकल्पना आहेत. शिक्षण प्रक्रियेमार्फत या मानवी मूल्यांची अभिव्यक्ती व्हावी अशी अपेक्षा असते. शिक्षण हे उद्दिष्टये, अभ्यासक्रम आणि पध्दतीतून जोडलेले असते. शिक्षणाद्वारेच मानवी समाज आपल्या मूल्यांचा ठेवा मिळवितो, जतन करतो आणि वाढवितो. आणि म्हणूनच मुल्य शिक्षण हे प्रत्येक समाजात व काळात सामाजिक नियंत्रण व विकासाचे प्रमुख साधन मानले गेले आहे.

मूल्य शिक्षणाचा अर्थ व संकल्पना:

मूल्यशिक्षण म्हणजे मानवाने आपला सांस्कृतिक विकास करीत असतांना समाज विकासासाठी ठरविलेले नैतिक मानदंड विद्यार्थ्यांमध्ये रुजविणे होय. एका अर्थाने शिक्षण ही वर्तनात बदल करण्याची प्रक्रिया आहे. यामध्ये विद्यार्थ्यांच्या वृत्तीमध्ये बदल करणे अपेक्षित आहे. विद्यार्थ्यांच्या वृतीत ठरविलेल्या मानदंडाच्या दिशेने बदल व्हावा म्हणून दिले जाणारे सर्व प्रकारचे शिक्षण म्हणजे मूल्यशिक्षण होय.

योग्य मूल्यांचा, वृतीचा भावनांचा आणि वर्तन रचनांचा विकास व्हावा म्हणून विषय अध्यापनातून तसेच सहशालेय कार्यक्रमांतून दिले जाणारे शिक्षण म्हणजे मूल्यशिक्षण होय.

जीवनास आवश्यक मूल्य कोणती आहेत? ती कशी उपयोगी आहेत? याचे केवळ ज्ञान होऊन भागत नाही. ती

मूल्ये विद्यार्थ्यांनी स्विकारण्याची परिस्थिती निर्माण करावी लागते. मूल्य शिक्षण म्हणजे मूल्यांची माहिती देणे नव्हे. शाळेत विद्यार्थी जेवढा वेळ राहतो त्या वेळात तो ज्या ज्या उपक्रमात सहभागी होतो तो सर्व कार्यक्रमांची आखणी व आयोजन अशाप्रकारे करावयास हवे की त्यातून विद्यार्थ्यांना मूल्यांची जाणीव होईल, ते मूल्य स्वीकारतील आणि त्यानूसार आचरण करतील.

विनोबा भावे यांच्या मते, जीवन म्हणजे संस्कार संचय होय, म्हणून मूल्य शिक्षणातून मानवतेच्या विधायक विकासाला साक्षात्कार घडणे आवश्यक आहे. मूल्य शिक्षण म्हणजे मूल्यांचे शिक्षण. पण मूल्य म्हणजे काय? मूल्य कशाला म्हणायचे? तर मूल्यांमध्ये सर्वच चांगल्या गोष्टीचा समावेश होतो. इतरांना मनाने किंवा शरीराने न दुखवणे ही चांगली वृत्ती तसेच दुसऱ्याशी योग्य प्रकारे वागता येणे त्यास मूल्य शिक्षण म्हणावे.

मूल्य शिक्षणाच्या संकल्पनेचा विचार करतांना आपण काही शिक्षणतज्ञांनी मूल्य शिक्षणाच्या केलेल्या व्याख्यांचा विचार येथे करुया.

1) एन.सी.ई.आर.टी. - व्यक्तीच्या शारीरीक स्वास्थ्याला तसेच सामाजिक समायोजनाला, संस्कृतिला कार्यान्वीत करणाऱ्या मार्गदर्शक जीवनतत्वांचे शिक्षण म्हणजे मूल्य शिक्षण होय.

2) रॉकेच - चिरकाल टिकणारा विश्वास, एखाद्या विशिष्ट वर्तनाचे वळण, चांगल्या गोष्टी ह्यांची पातळी ठरविण्याऱ्या निकषांचे शिक्षण म्हणजे मूल्य शिक्षण होय.

3) मूळावकर - मानवी जीवनात सात्विक करणाऱ्या तात्वीक बाबींचे, मनाला सशक्त करणाऱ्या, वर्तनाला इष्ट वळण देणाऱ्या, मनाला व वर्तनाला इष्ट दिशेने प्रयत्नशील ठेवणाऱ्या बाबींचे शिक्षण म्हणजेच मूल्य शिक्षण होय.

4) लिटन - अनेक परिस्थितीत समान राहणाऱ्या व व्यक्तीला कार्याचे निश्चित दिग्दर्शन करणाऱ्या तत्वांचे शिक्षण म्हणजे मूल्य शिक्षण होय.

5) सी. व्ही. गुड - व्यक्तीच्या क्षमता, अभियोग्यता व दृष्टीकोन ह्यांच्या अनुषंगाने वर्तन विकसित करणाऱ्या एकात्म साधनांचे शिक्षण म्हणजे मूल्य शिक्षण होय.

मूल्य शिक्षणांच्या संकल्पनेचा विचार करतांना कोणकोणती मूल्ये आहेत याचाही विचार महत्वाचा आहे यात वर्गीकरण केल्यास

1) सामाजिक मूल्ये

2) धार्मिक मूल्ये

3) व्यक्तिगत मूल्ये

4) सांस्कृतिक मूल्ये

5) राजकीय मूल्ये

6) व्यावसायिक मूल्ये

7) नैतिक मूल्ये

8) आधुनिक मूल्ये

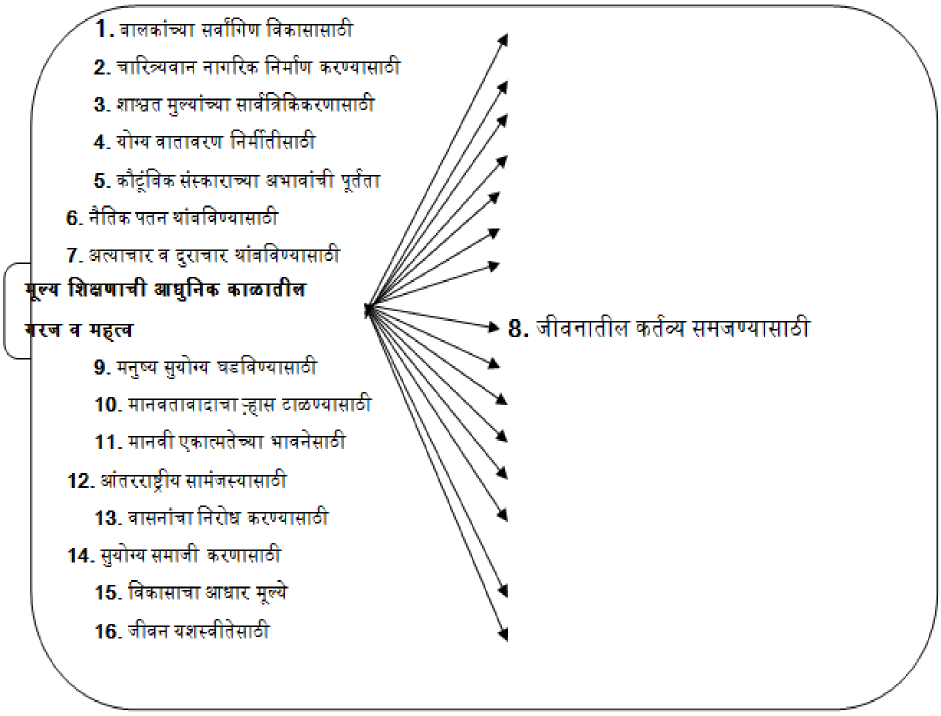
9) राष्ट्रीय मूल्ये

10) निसर्ग मूल्ये इ. मूल्य प्रकार सांगता येतील.

1986 च्या राष्ट्रीय शैक्षणिक धोरणात 10 गाभाभूत घटक हे अभ्यासक्रमाचा आधार निश्चित करण्यात आले. हे गाभाभूत घटक म्हणजेच 10 मूल्ये आहेत ज्यावर पूर्ण देशाचा अभ्यासक्रम आधारलेला आहे. ती 10 मूल्ये खालील प्रमाणे आहेत. (1) भारतीय स्वातंत्र्याचा इतिहास (2) राष्ट्रीय कर्तव्य (3) सर्वधर्म समभाव (4) स्त्री -पुरुष समानता (5) पर्यावरण सुरक्षा (6) सामाजिक अंधश्रध्दांचे निर्मुलन (7) परिवार कल्याण (8) वैज्ञानिक दृष्टीकोण (9) भारतीय सांस्कृतिक वारस्यांचा आदर (10)राष्ट्रप्रेम व राष्ट्रीय एकात्मता

मूल्य शिक्षणाची आधुनिक काळातील गरज व महत्व

आजच्या आधुनिक व विज्ञानाच्या काळात व्यक्तीचे जीवन अत्यंत संघर्षाचे व धावपळीचे झाले आहे. अशा परिस्थितीत समाजाचे नैतिक घसरणीचे प्रमाण हे वाढतच चालले आहे. यामुळे मनुष्य जीवनावर विपरीत परिणाम होत आहेत. भौतिक सुविधा व समृध्दी असूनही व्यक्ती आज सुखी नाही. कारण त्याला आत्मसमाधान नाही. तसेच जीवनातील मूल्यांची घसरण ही सतत जाणवत असते. आजची ही सामाजिक असंतुलनाची व असामाजिक परिस्थिती बदलायची असेल तर त्यासाठी मूल्याधिष्ठीत समाज निर्मीतीची आवश्यकता आहे. यादृष्टीने मूल्य शिक्षणाची गरज खालील प्रमाणे स्पष्ट करता येईल



मुल्य शिक्षणासाठी शैक्षणिक उपक्रम/कार्यक्रम

आजच्या काळात विद्यार्थ्यांवर मूल्यसंस्कार करण्याची मोठी जबाबदारी शाळेवर आहे. त्यात शिक्षक, मुख्याध्यापक, शिक्षकेतर कर्मचारी इ. सर्व घटकांची भूमिका मूल्य शिक्षण देण्यात अथवा तशी परिस्थिती निर्माण करण्यात अत्यंत महत्वाची ठरत आहे. शाळेमध्ये विविध विषयांच्या माध्यमाने, विविध सांस्कृतिक उपक्रम इतर विविध अभ्यासपूरक व अभ्यासेतर कार्यक्रम, तसेच मूल्यवर्धक शालेय परिसराच्या माध्यमाने विद्यार्थ्यांवर मूल्य संस्कार करता येतात. मूल्यशिक्षणासाठी पुढील प्रमाणे कार्यक्रम राबविता येऊ शकतात.

1) अभ्यासक्रम - मुल्य शिक्षण हे प्रत्यक्ष-अप्रत्यक्ष आणि प्रसंगानुरुप देता येईल. मुल्य शिक्षण म्हणजे खास तासिका देऊन पध्दतशीर केलेले अध्यापन. बऱ्याच राज्यात पाच पध्दतीने मूल्यशिक्षण दिले जाते. ह्या पध्दतीत मूल्य गोष्टी, नीतीकथा, प्रेरक प्रसंग, नैतिक समस्या, विविध पेच प्रसंग, याद्वारे स्पष्ट केली जातात, चर्चीली जातात आणि विशद केली जातात. आणि विशद केली जातात. दैनंदिन शालेय अभ्यासक्रमाच्या विषयातून आणि अभ्यासक्रमानुषंगिक उपक्रमातुन मूल्य शिक्षणाचे कार्य अप्रत्यक्षरित्या घडत असते. अभ्यासक्रम हा मूल्यधिष्ठित व मूल्यसंपन्न कसा होईल, हा ही दृष्टीकोन ठेवलेला असतो. अभ्यासक्रमातील प्रत्येक पाठयविषयातून भाषा, समाजशास्त्र, विज्ञान, समाजसेवा, कार्यानुभव यातून मूल्य संस्कार प्रत्यक्षपणे होतात. उदा. भाषा विषयाच्या पाठयपुस्तकात अनेक गद्य,पद्य पाठातून जीवन विषयक मूल्ये अनुस्यूत आहेत. या मूल्यांचा अध्यापन करतांना विद्यार्थ्यांना परिचय करुन देण्याची जबाबदारी शिक्षकांची आहे. त्यासाठी पाठयाध्यापनातून सुत्रे, संकल्पना, शब्दार्थ, आशय अशा ज्ञानात्मक स्तरावरच शिक्षकांनी अध्यापन मर्यादिन न ठेवता, त्यातील अध्यारुत मूल्यांचे स्पष्टीकरण करावे. एखादया मूल्यांची ओळख झाल्यावर ते मनावर बिंबविण्यासाठी, स्थिरावण्यासाठी आणखी वेगळे उपक्रम राबवून विद्यार्थ्यांना त्यात सहभागी होण्यास भाग पाडावे. उदा. एखादया कवितेतून किंवा गद्य पाठातून लेखकाने वा कवीने निसर्गावर प्रेम करा, असा संदेश दिला असेल तर निसर्गप्रेम या मूल्यांचा परिचय झालेल्या विद्यार्थ्यांना निसर्गाच्या सानिध्यात घेऊन निसर्ग हा कसा संपन्न आहे, त्याचे संरक्षण व संवर्धन करण्याची जबाबदारी मानवावर कशी आहे, हे पटवून दिल्यास ते अधिक प्रस्तुत ठरेल.

2) सांस्कृतिक कार्यक्रम व इतर उपक्रम - पाठयविषयाचे अध्यापन करीत असतांना विद्यार्थ्यांना ज्या मूल्यांचा परिचय करुन दिला आहे. ती मूल्य स्थिरावण्यासाठी विद्यार्थ्यांना त्या मूल्यांशी सुसंगत अशा उपक्रम सहभागी होण्यासाठी संधी द्यावी. उपक्रमात सहभागी विद्यार्थ्यांना आनंद वाटावा. उपक्रमात आयोजन हे आनंदाकडूनच विकासाकडे नेणारे असावे. शालेय उपक्रमात परिपाठ, राष्ट्रीय पुरुषांच्या जयंत्या, पुण्यतिथी, श्रमदान, सहली, गीतमंच, कथाकथन असे जे विविध उपक्रम आयोजीत केले जातात. त्या सर्व उपक्रमांतून विद्याथ्र्यांमध्ये कोणत्या स्वरुपाची व्यक्तिगत, सामाजिक व निसर्गविषयक मूल्य आपणास बिंबवायची आहेत. हा पूर्व विचार करुन सांस्कृतिक व इतर उपक्रमांचे आयोजन करावयास हवे.

कारण मूल्य स्वीकारले जाऊन ते स्थिरावण्यासाठी मूल्यांशी सुसंगत अशा क्रियेतील प्रत्यक्ष अनुभव महत्वाचा असतो.

3) **शालेय परिसर** - विद्यार्थी दिवसभर ज्या शालेय परिसरात असतात. त्या परिसराचा उपयोग विद्यार्थ्यांच्या मनावर चांगली मूल्ये बिंबवण्यासाठी करुन घ्यावयास हवा. काही शाळांचा परिसर इतका निसर्गसमृध्द असतो की त्या परिसरात प्रवेश केल्याबरोबरच मुलांची मने प्रफुल्लीत होतात. परिसर हे मुल्य संस्काराचे अबोल माध्यम आहे. परिसरातील सत्येतन वस्तू आणि विद्यार्थी यांच्यामध्ये होणाऱ्या आंतरप्रक्रियेतून मूल्यसंस्काराची प्रक्रिया नकळत होत असते. शालेय इमारत, वर्गाच्या भिंती शाळेचे ओटे, भिंतीचे व जिन्याचे कोपरे शाळेत लावलेले वृक्ष, शालेय बाग, स्पर्धांमध्ये मिळवलेली बक्षिसे शाळेतील माजी मान्यता प्राप्त झालेल्या विद्यार्थ्यांचे फोटो, त्यांच्या आठवणी शिल्पे, काचपेटयातून लावलेली चित्रे, सुविचार अशी कितीतरी गोष्टी मूलांच्या मनावर जीवनाश्यक वृत्तींचा संस्कार करणे शक्य असते. त्यासाठी शाळेतील शिक्षकांनी व मुख्याध्यापकांनी आपल्या शालेय परिसर कल्पकतेने संस्कारसमृध्द कसा करता येईल याचा विचार करावयास हवा. थोडक्यात परिसर संस्कारसमृध्द असेल तर विद्यार्थी देखील नकळत त्यातील चांगल्या गोष्टी उचलतात, आत्मसात करतात व त्यातून मूल्यांचा संस्कार होत असतो.

4) **आदर्श वर्तन** - शालेय वातावरणात शिक्षक, मुख्याध्यापक व शिक्षकेतर कर्मचारी यांचे वर्तन हे अत्यंत आदर्श व चांगले असणे आवश्यक आहे. विद्यार्थ्यांशी बोलतांना व वागतांना जर शिक्षक चांगले व आदर्श वागले, आपल्या वागण्यातून सहकार्य, नम्रता, आदरभाव, समानता, निपक्षपातीपणा, कर्तव्यनिष्ठा या गुणांची जोपासना केली तर विद्यार्थ्यांवर त्याचा प्रभाव पडतो व त्यांच्या व्यक्तीमत्वात ते सहेतूक बदल करण्याचा प्रयत्न करतात. यामुळे शिक्षकांच्या आदर्श वर्तनाद्वारे ही विद्यार्थ्यांमध्ये मूल्ये उत्तम प्रकारे रुजविता येतात. यामुळे शिक्षक, मुख्याध्यापक व शिक्षकेतर कर्मचारी यांनी तसा विचार करुन आपल्या वर्तनात योग्य ते बदल करावेत.

निष्कर्ष

मूल्य शिक्षण देने आजच्या आधुनिक काळाची गरज आहे. व्यक्ती कितीही प्रगतीशील असला तरी तो समाजाशी निगडीत आहे. समाजाचे नियम आणि नितीमुल्य समजून घेऊन आणि ती आत्मसात करून जीवन जगणे आवश्यक असते. त्यात आधुनिक काळात जीवनशैली बदलली आहे. त्यामुळे मुल्ये रुजविणे जास्त गरजेचे झाले आहे. ज्या ज्या चांगल्या व जीवनास पोषक अशा गोष्टी आहेत त्या सर्व बिंबवण्याचे, रुजविण्याचे प्रयत्न ज्या शिक्षणातून केले जातात त्यास मूल्य शिक्षण असे म्हणतात. आपल्या विचारांना, भावनांना आणि कृतिला चांगल्या जीवनाच्या संकल्पना अपेक्षित असतात. वर्तनात परिवर्तन घडवून आणणे ही शिक्षणाची प्रक्रिया आहे. व्यक्ती आणि समाजाचा घटक म्हणून संयुक्तिक वाटेल असे ज्ञान, कौशल्य, कृती, मूल्ये आणि वर्तनरचना याचा समावेश शिक्षणात होतो म्हणून योग्य दिशेने परिवर्तनाची प्रक्रिया म्हणजे शिक्षण असे म्हटले जाते. सृजनशीलता, सामाजिक न्याय, राष्ट्रीय एकता, शास्त्रीय दृष्टी, स्वातंत्र्य, समाजवाद, धर्मनिरपेक्षता, लोकशाही ही मानवी मूल्ये आहेत, त्यात चांगल्या जीवनाच्या संकल्पना आहेत. शिक्षण प्रक्रिये मार्फत या मानवी मूल्यांची अभिव्यक्ती व्हावी अशी अपेक्षा असते. शिक्षण हे उद्दिष्टये, अभ्यासक्रम आणि पध्दतीतून जोडलेले असते. शिक्षणाद्वारेच मानवी समाज आपल्या मूल्यांचा ठेवा मिळवितो, जतन करतो आणि वाढवितो.

संदर्भ सूची

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कथा सम्राट प्रेमचंद का जीवन दर्शन

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सार

प्रेमचंद को हिंदी साहित्य के जगत में उपन्यास सम्राट के रूप में माना जाता है। वे अपने काल के एक विशिष्ट कथाकार भी थे। उन्होंने अपनी लेखनी से न केवल समाज की सेवा की बल्कि कलम के सिपाही के रूप में उभरे। प्रेमचंद ने अपने समय की गहराई को समझा और मार्गदर्शन किया। उन्होंने ब्रिटिश राज में रहते हुए अपनी कहानियों और उपन्यासों के जरिए भारतीय स्वतंत्रता संग्राम में योगदान दिया और भारतीय समाज की विभिन्न समस्याओं की पहचान कर उनके समाधान की ओर इशारा किया। उनके जीवन के कठिन अनुभवों ने उन्हें भारतीय जीवन की विडंबनाओं का साक्षात्कार कराया। मानव जीवन के प्रति उनकी व्यक्तिगत समझ गोदान जैसी उनकी परिपक्व कृति में प्रकट हुई है, जिसमें उन्होंने अपने विचारों को स्पष्ट रूप में व्यक्त किया। उनका मानना था कि बिना अपने मार्ग, अध्ययन और दर्शन के कोई भी सच्चा कलाकार नहीं बन सकता। वास्तविक जीवन को अपनी आँखों से देखो, अपने अनुभवों से मापो और जैसा पाओ, वैसा ही लिखो। गोदान में, प्रोफेसर मेहता के किरदार के माध्यम से, जो दर्शन के विद्वान हैं, प्रेमचंद ने अपने जीवन दर्शन को उजागर किया है।

मुख्य शब्द– मानवीयता, स्वतंत्रता, यथार्थवाद, आदर्शवाद, दांपत्य

प्रस्तावना–

प्रेमचंद मानव जीवन में मानवतावाद को महत्वपूर्ण मानते थे। उनकी धारणा थी कि जब तक मानवता का प्रभाव नहीं होगा, तब तक समाज में समृद्धि और सुख नहीं हो सकता। प्रेमचंद का मानना था कि धन और सामृद्धि के बावजूद, यदि व्यक्ति मानवता के मूल्यों को नहीं समझता है और उनका अनुसरण नहीं करता है, तो उसका जीवन अधूरा और व्यर्थ होता है। राय साहब के लंबे संवाद भी इस बात का प्रमाण है कि मानवीयता को समझने और उसे अपनाने में लोगों को महत्वपूर्णता देनी चाहिए। प्रेमचंद एक ऐसे समाज की कल्पना करते थे, जहां सभी लोग स्वयं को मानवीय दृष्टि से समझते हैं और मानवता के आदान–प्रदान में समर्थ होते हैं। राय साहब अपने भावनात्मक अंतरंग मन से दुखी हैं, और वे स्वयं की भावनाओं के माध्यम से समाज को सुधारने का प्रयास करते हैं।

सामाजिक न्याय और आत्म–सुधार ईश्वरीय विश्वास से अधिक महत्वपूर्ण हैं। वे मानते थे कि समाज में असमानता, शोषण और अत्याचार का मुकाबला करने के लिए व्यक्तिगत जागरूकता और सामाजिक क्रियाकलाप अनिवार्य हैं। प्रेमचंद के अनुसार, यदि हमें समाज में सच्चे मानवीय संबंधों की स्थापना करनी है, तो पहला कदम स्वयं का आत्म–परीक्षण है। यानी हमें अपनी कमजोरियों, पूर्वाग्रहों और दुर्भावनाओं की पहचान करनी होगी और उन्हें दूर करने की कोशिश करनी होगी। ईश्वर के प्रति प्रेमचंद का दृष्टिकोण भारतीय समाज में प्रचलित अंधविश्वास और रूढ़िवादिता से अलग था। वे ईश्वरीय विश्वास को व्यक्तिगत मामला मानते थे और इसे सामाजिक सुधार या नैतिकता के लिए एक आवश्यक शर्त के रूप में नहीं देखते थे। उन्होंने ईश्वर के नाम पर किए जाने वाले अन्याय और अत्याचारों की कठोर आलोचना की। प्रेमचंद के लेखन में यह स्पष्ट है कि वे मानवता के उत्थान और सामाजिक न्याय को सबसे ऊपर मानते थे।

प्रेमचंद की कहानियाँ और उपन्यास सामाजिक विषमताओं, शोषण, और मानवीय संघर्षों का चित्रण करते हैं, जिसमें उन्होंने ईश्वरीय विश्वास और धार्मिक आदर्शों की अपेक्षा सामाजिक बदलाव के लिए व्यक्तिगत जिम्मेदारी और सक्रिय प्रयासों पर जोर दिया। उनका लेखन समाज में बदलाव लाने के लिए जागरूकता और कार्य की आवश्यकता पर बल देता है, जिससे एक न्यायपूर्ण और समतामूलक समाज की रचना हो सके और विज्ञान के प्रति सम्मान रखते हुए भी उन्होंने यह बात स्पष्ट की कि मनुष्य को अपनी बुद्धि और विवेक का उपयोग करते हुए जीवन की समस्याओं का समाधान खोजना चाहिए। प्रेमचंद ने इस बात पर जोर दिया कि भगवान पर पूर्णतः निर्भर रहने के बजाय, मनुष्य को अपनी समस्याओं का समाधान खुद ढूंढना चाहिए। उन्होंने मानवता को यह संदेश दिया कि जीवन में चुनौतियों का सामना करते समय, उन्हें अपने आंतरिक शक्ति और बुद्धिमत्ता का उपयोग करना चाहिए।

प्रेमचंद का मानना था कि ईश्वर के विधानों को समझना मनुष्य के लिए संभव नहीं है, और इसीलिए मनुष्य को अपने जीवन की दिशा और निर्णय स्वयं तय करने चाहिए। वे इस विचार के खिलाफ थे कि मनुष्य के हर काम में ईश्वर की प्रेरणा होती है, बल्कि उन्होंने यह बताने की कोशिश की कि मनुष्य की अपनी कर्मठता, उसका निर्णय और उसकी मेहनत ही उसके जीवन को आकार देते हैं। इस प्रकार, प्रेमचंद ने मानवता को आत्म–निर्भरता, विवेक और कर्म पर बल दिया। उनका यह दृष्टिकोण आज भी प्रासंगिक है, जहां समाज में व्यक्तियों को अपने जीवन की चुनौतियों का सामना करते समय सकारात्मक और प्रगतिशील दृष्टिकोण अपनाने की जरूरत है। प्रेमचंद की यह शिक्षा हमें याद दिलाती है कि जीवन में समस्याओं का

सामना करने के लिए अपनी बुद्धि और क्षमता पर भरोसा करना चाहिए। मध्यम वर्गीय लोगों के जीवन से भी गहराई से जुड़ी हुई हैं। उनकी कहानियों में वर्ग संघर्ष, सामाजिक अन्याय, आर्थिक विषमता, नैतिकता, और मानवीय मूल्यों की खोज जैसे मुद्दे प्रमुख रूप से उठाए गए हैं। प्रेमचंद ने अपनी कहानियों में समाज की विसंगतियों को उजागर किया और उनके समाधान के लिए विवेकपूर्ण, मानवीय दृ ष्टिकोण का प्रस्ताव किया।

प्रेमचंद ने धर्म और पूजा–पाठ में श्रद्धा न रखने का अपना विचार इसलिए व्यक्त किया क्योंकि उन्होंने देखा कि कैसे धर्म के नाम पर पाखंड और अंधविश्वास समाज में व्याप्त हैं। उनका मानना था कि वास्तविक धर्म सेवा, ममता, और सत्य के माध्यम से व्यक्त होता है, न कि केवल रस्म–रिवाजों और बाहरी आडंबरों के जरिए। इस प्रकार, उनके लेखन में एक गहरा मानवतावादी दृष्टिकोण निहित है, जो प्रत्येक व्यक्ति के भीतर की अच्छाई और सकारात्मक परिवर्तन की संभावना पर बल देता है। प्रेमचंद की कहानियां समय और स्थान की सीमाओं को पार कर गईं, क्योंकि उन्होंने मानवीय संघर्षों, आशाओं, और सपनों को ऐसे चित्रित किया जो आज भी प्रासंगिक हैं। उनकी कहानियों में जीवन की यथार्थता और आदर्श के बीच का संघर्ष आज भी हमें प्रेरित करता है, जो हमें सिखाता है कि किस प्रकार से हमारे आदर्श और व्यवहारिक जीवन के बीच संतुलन स्थापित किया जा सकता है। अंततः, प्रेमचंद की विचारधारा और लेखन में एक ऐसी सार्वभौमिकता है जो समय के साथ और अधिक प्रासंगिक होती जा रही है। उनका कार्य मानवीय मूल्यों, समाजिक न्याय, और आत्म–सुधार की दिशा में एक लगातार प्रेरणा का स्रोत बना हुआ है।

प्रेमचंद की कहानियां समय और स्थान की सीमाओं को पार कर गईं, क्योंकि उन्होंने मानवीय संघर्षों, आशाओं, और सपनों को लिखा जो आज भी प्रासंगिक हैं। उनकी कहानियों में जीवन की यथार्थता और आदर्श के बीच का संघर्ष आज भी हमें प्रेरित करता है, जो हमें सिखाता है कि किस प्रकार से हमारे आदर्श और व्यवहारिक जीवन के बीच संतुलन स्थापित किया जा सकता है। अंततः, प्रेमचंद की विचारधारा और लेखन में सार्वभौमिकता है जो समय के साथ और अधिक प्रासंगिक होती जा रही है। उनका कार्य मानवीय मूल्यों, समाजिक न्याय, और आत्म–सुधार की दिशा में लगातार प्रेरणा का स्रोत बना हुआ है। प्रेमचंद के विचारों में जीवन के प्रति एक गहरी समझ और सहानुभूति दिखाई देती है। उनके लेखन में नारी की स्थिति, समाज के ढांचे, और मानवीय संबंधों की परतें खोलकर सामने रखी गई हैं। प्रेमचंद नारी को समाज का एक मजबूत स्तंभ मानते थे, और उन्होंने नारी शिक्षा और उसके सम्मान की बात की। उनके लेखन में यथार्थवाद और आदर्शवाद का संतुलन नजर आता है, जिससे पाठकों को न सिर्फ उस समय के समाज की सच्चाई का आभास होता है, बल्कि एक बेहतर समाज की कल्पना भी कर सकते हैं। प्रेमचंद की कहानियों में जीवन के संघर्ष, सपने, और आदर्शों की गाथा है। वे मानवता के प्रति अपने गहरे प्रेम और समर्पण के माध्यम से समाज में बदलाव लाने की बात करते हैं। उनके विचार आज भी प्रासंगिक हैं और हमें समाज में व्याप्त विसंगतियों पर चिंतन करने और उन्हें सुधारने की प्रेरणा देते हैं। प्रेमचंद ने अपनी रचनाओं के माध्यम से न सिर्फ हिंदी साहित्य को समृद्ध किया, बल्कि एक सोच को भी जन्म दिया, जो आज भी हमें अपने जीवन और समाज के प्रति सचेत रहने का संदेश देती है।

प्रेमचंद जी का जीवन दर्शन वास्तव में आज के समय में भी बहुत महत्वपूर्ण है। उनकी विचारधारा, जो ईश्वर और पारलौकिक विषयों पर अधिक भरोसा न करके, मानवीय कर्तव्य, बुद्धिवाद और व्यक्तिगत प्रयासों पर जोर देती है, आज के युग में भी लोगों को अपने जीवन को अर्थपूर्ण बनाने के लिए प्रेरित कर सकती है। उनका मानना था कि जीवन में सच्चा प्रेम और सार्थकता तभी आ सकती है जब हम मानवता का मार्ग अपनाएं, और नारी और पुरुष दोनों ही समाज के निर्माण में समान रूप से भागीदार हों। प्रेमचंद की रचनाएं और उनके विचार आज भी हमें सिखाते हैं कि जीवन में वास्तविकता और आदर्श के बीच संतुलन कैसे बनाया जाए। उनकी कहानियाँ और उपन्यास न केवल मनोरंजन प्रदान करते हैं बल्कि उनमें सामाजिक संदेश भी होते हैं जो पाठकों को सोचने पर मजबूर करते हैं। प्रेमचंद जी द्वारा नारी शिक्षा और उनकी भूमिका के प्रति उनके विचार आज भी प्रासंगिक हैं। उनका मानना था कि शिक्षित नारी न केवल अपने परिवार बल्कि समाज के निर्माण में भी महत्वपूर्ण योगदान दे सकती है। इस प्रकार, प्रेमचंद जी के विचार और उनका जीवन दर्शन आज के समय में भी लोगों को प्रेरित करने के लिए महत्वपूर्ण हैं, और उनकी रचनाएं समाज को एक बेहतर दिशा दिखाने के लिए सक्षम हैं।

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आर्टिफिशियल इंटेलिजन्स और हम

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सारांश:

आर्टिफिशियल इंटेलिजन्स को हिंदी मे कृत्रिम बुद्धिमत्ता कहते है इसका मतलब बनावटी यानी कृत्रिम तरीके से विकसित की गई बौद्धिक क्षमता आर्टिफिशियल इंटेलिजन्स कम्प्युटर सायन्स की एक ऍडव्हान्स शाखा है.

मानव और अन्य जंतू द्वारा बनी हुई प्राकृतिक बुद्धी होती है इसके विपरीत मशीनो द्वारा बनाई गई बुद्धी है कंप्यूटर मे कृत्रिम बुद्धी के शोध को 'होशियार एजंट' का अध्ययन माना जाता है होशियार एजंट एक ऐसा संयंत्र है जो अपने पर्यावरण को देखकर अपने लक्ष्य को प्राप्त करने की कोशिश करता है बोल चाल मे एक मशीन जब एक मशीन इंसानो के कार्यो की नकल करती है. यह कृत्रिम वस्तू आम तौर पर कंप्यूटर की ही है. कृत्रिम बुद्धिमत्ता यह विषय विज्ञान कथाओ मे ज्यादा दिखाई देता है कृत्रिम बुद्धिमत्ता मतलब मानव की तरह सोचने वाली मशीन बनाने वाला शास्त्र है यह मशीन स्मार्ट समझी जानेवाली बाते करती है 'ए आय' टेक्नॉलॉजी मानव की तरह बडे पैयमाने पर डेटा पर काम कर रही है नमुना पहेछानना, निर्णय देना और मानव की तरह न्याय करना यह सब काम करने के लिए सक्षम होना जरुरी है यह सब 'ए आय' का ध्येय है.

'ए आय' मतलब एक मशीन मे सोचने, समझने और निर्णय लेने की क्षमता है. अकृत्रिम बुद्धिमत्ता मानव के बुद्धी की तरह काम करेगी. कृत्रिम बुद्धी का दायरा विवादित है क्योंकि मशीने तेजीसे सक्षम हो रही है जो कार्य करने के लिए होशियारी चाहिये कहते थे अब कार्य यह कृत्रिम दायरे में नही आते. वो कहते है ना सबकुछ सिखा हमने नासिखी होशियारी. यह अब कृत्रिम दायरे मे नही आता एक उदाहरण दिया गया है लिखे हुए शब्द को पहचानने मशीन इतनी सक्षम हो चुके है कि इसे अब होशियारी नही मानी जाती आज 'ए आय' पहले इंसानो के वाणी को समझ रहा है. शतरंज या गेट सेट गो के खेल मे माहीर इन्सानो से भी 'ए आय' जीता है यही 'ए आय' बिना इंसानी सहारे के खुद गाडी भी चलायेगा. 'ए आय' का दबदबा संगीत क्षेत्र मे भी दिखाई देने लगा है संगीतक्षेत्र मे 'ए आय' का उपयोग मेलोडाईन या ऑटोट्युन इस नाम की आज्ञावली सुरमे न गाया हुआ गाना उसे सुर मे लाने के लिए मदत करता है. सच मे यह कृत्रिम बुद्धिमत्ता न कहकर इसी कृत्रिम मेधा इस अवधारना का इस्तेमाल किया जाता है.

"बुद्धिमत्ता का मतलब कोई भी कार्य का निर्णय लेना और उस निर्णय को संभाले रखने की क्षमता" ज्यादा से ज्यादा सुचना बुद्धी का खुराक होती है. मेधा मतलब बुद्धी को ज्ञात अवधारणा औपर कुछ करने की नैतिक सवाल खडे होती है जैसे मुझे कुछ करने की क्षमता. कला के क्षेत्र मे कुछ नैतिक सवाल खडे होते जैसे मुझे कुछ अलग अलग तरह का संगीत सुनना है. ऐसी आज्ञा करने के बाद जिसे संगीत की निर्मिती होती है वह किस का पेटंट होगा जिसके मन में यह अवधारना आई, जिसने उसे आजादी दी जिस कंपनीने यह आज्ञावली तयार की उस बारे मे सूचना जमा की उस सूचना के जरीए उसकी संरचना बनाई गई. कुछ संगीतकारो को डर है की 'एआय' से बने हुए संगीत से संगीत का तरीका, शैली बदलेगी जब एक इन्सान संगीत बनाता है तो वह अपने परंपरंपरा ओ से जुडता है उदाहरण भारतीय संगीत मे

सनई, चौघडा, शहनाई इन म्युझिक इन्स्ट्रुमेंट को मंगल प्रसंगो को व्यक्त करने के लिये बजाते है. लेकिन अमेरिकन संगीतकारो के मन मे शहनाई और मंगल प्रसंग इसका कोई मेल नही होता. संगणक की वजाह से तरीका, शैली और परंपरा इनमे की अलगता खतम होने के कगार पर है क्योंकि संगणक अनुभवो का एकत्रीकरण और प्रमाणीकरण कर डालता है इस वजह से देश की विविधता खतरे मे पडती है.

पंडित यशवंत देवका कहेना है की मशीनो का इस्तेमाल करना कोई गैर काम नही है बल्की उसका इस्तेमाल करना चाहिए लेकिन इसमे इंसान मशीन तो नंही है इस तरह आँख मे तेल डालकर ध्यान रखना चाहिए

अनुसंधान के उद्देश:

1) ए आय का जन्म मानव जाती के लिए खतरा है

2) ए आय ते धोके बहुत खतरनाक हो सकती है

3) ए आय का हर क्षेत्र में प्रवेश (संगीत, फिल्म सिटी)

4) ए आय के व्हर्जन से संगणक को कई पट बुद्धिमत्ता मिली.

तथ्य संकलन

***प्राथमिक तथ्य संकलन:---**

'आर्टिफिशियल इंटेलिजन्स और हम' यह विषय अनुसंधान के लिए चुना गया है इसमे संशोधिकाने विषय के अनुसंधान के लिए संदर्भ ग्रंथ, इंटरनेट, समाचार पत्र इसका इस्तेमाल किया है

'आर्टिफिशल इंटेलिजंट' का पिता भी यही कहता है कि 'ए आय' एक ऐसा रक्षेस है जो इंसानो को खा जाता है जेफ्री हिटनजो ए आय के पिता है उन्हे अब आर्टिफिशल इंटेलिजंट की खोज कर के पछतावा हो रहा है उनका कहना है कि मनुष्य मशीन बन गया है, मशीन को इन्सान का दिमाग दिया गया इसलिये इंसान की जिंदगी खत्म हुई दिमागी यादाश्त का कम इस्तेमाल होने लगा. मनुष्य की जिंदगी मशीन बन गई जिंदगी के चैन के कुछ लम्हे खो गये. जेफ्री हिटन का नाम आर्टिफिशल इंटेलिजंट मे चॅट जीपीटी और बिंग या बार्ड में डंका बज रहा है.

1) आर्टिफिशल इंटेलिजंट की जागरूकता :---

डॉक्टर जेफ्री हिटन ने आर्टिफिशल इंटेलिजंट के धोके पहचाने इससे इंसानी जिंदगी तबाह हो सकती है. येह डर उनके मन मे घर कर गया पछतावे के तौर पर जेफ्री ने google की दस साल की नोकरी छोड दि बची हुई पुरी जिंदगी उन्होने दुनिया भर के लोगो को जागरूक करने मे बिता रहे है.

2) आर्टिफिशल इंटेलिजंट चॅटजीपीटी - 4 व्हर्जन :---

हिटन के पछतावे का सबब माना जाता है मानव के दिमाग की लाखपट बुद्धिमत्ता इस व्हर्जनसे संगणक को मिली है यह और ऐसे अन्य आर्टिफिशल इंटेलिजंट अवतारो से उत्पादकता बढेगी, कार्यक्षमता बढेगी कहने को तो आर्टिफिशल इंटेलिजंट बहोत सटीक व्हर्जन है लेकिन इसमे एक दुसरे को फसाया जायेगा, उलझने बढेगी इस तरह इंसानी जिंदगी मुश्किल में पडेगी. हिटनने मे भविष्य मे कहा है कि आर्टिफिशल इंटेलिजंट को जन्म दिया है तो इस रक्षेस को इन्सान ही नियंत्रित करेगा.

3) आर्टिफिशल इंटेलिजंटका बोलबाला :---

आर्टिफिशल इंटेलिजंटका का बोलबाला 2018 से शुरु हुआ लेकिन चॅट जीपीटी, बिंग और बार्ड जैसे चॅट बॉटस को लोग पसंत करने लगे इससे इसमे दिलचस्पी (Interest) बडी है नोव्हेंबर 2022 मे ओपन आर्टिफिशल इंटेलिजंट ने विश्व को चॅट जीपीटी की नई पहचान दी. यह नया चॅटबोट बहुत जल्द वायरल हुआ और लोग इसका अलग अलग कारणो के लिए बडे पैमाने पर इसका इस्तेमाल करने लगे

4) आर्टिफिशल इंटेलिजंटसे नईनई चीजे लिखवाना :---

कुछ लोग चाट बोट के निबंध और कविता लिखने के लिए कहते तो कुछ लोग उसे आशिकी कल्पना आहे तयार करने के लिए कहते है कोई भी लेख संपादित करने के लिए कहते और बहोत सारी काम उसे करा लेते तो वह ए आय फौरन कर देता है. इन्सान को भी वक्त लगेगा लेकिन इस स्मार्ट ए आय थोडा भी वक्त नही लेता इस चॅट बोट को अलग अलग परीक्षाओ मे बैठाया गया इतना ही नही एमबी.ए और विविध परीक्षाए आसानी से पास कर दी.

5) आर्टिफिशल इंटेलिजंट में सुधार :--

चायना मे एक ऐसी युनिव्हर्सिटी है जिसमे बहुत सारे कॅमेरे लगे हुए है की क्लास मे छात्र पीछे जाकर बैठते है वह पढ रहे है, या फिर मोबाईल पर गेम खेल रहे है यह कॅमेरे उन्के टीचर को फॉरेन अलर्ट करते है. इतना ही नही गुगल का गुगल सर्च, फ्लिपकार्ट मूवी रेकमेंडेशन अमेझॉन का अलेक्सा यह सब आर्टिफिशल इंटेलिजंट टेक्नॉलॉजी पर आधारित है. आर्टिफिशल इंटेलिजंट क्या है इसे जाने के लिए हमे पहले इसकी अवधारणा को समझना होगा "आर्टिफिशल इंटेलिजंट मतलब कंप्यूटर को दिया हुआ

कृत्रिम दिमाग" आर्टिफिशल इंटेलिजंट 1940 से 1950 की दशक मे खोजा गया. AI ऐसा है जैसे हम एक छोटे बच्चे के साथ खेलते खेलते खेल सिखाते है, बोलते बोलते बोलना सिखाते है एक विशिष्ट जगह ले जा कर वहा की जानकारी देकर अपडेट कराती है बिलकुल उसी तरह आर्टिफिशल इंटेलिजंट को जितनी हम सूचना देंगे उतना वह परफेक्ट होता जायेगा.

6)हायपर मॉडल बुद्धिमान प्रणाली :--

आर्टिफिशल इंटेलिजंट को जो भी सूचना दि जाये उससे भविष्य का अंदाज लगा सकता है (productive) इसका परिणाम और इसके पीछे के कारण जानना (कॉजल) और उपलब्ध सूचना के जरीये नया कुछ निर्माण कर सकते है (जनरेटिव्ह) आज इन तिनो के लिए हायपर मॉडेल के इस प्रणाली मे तीनो क्षमता है. स्वयंचलित मशीनो को युज करने वाले हायपर मॉडेल पर अनुसंधान हो रहा है. हायपरमॉडेल प्रणाली मे मानवी बुद्धिमत्ता तेजी से आगे बढेगी. सूचना, अनुभव और संदर्भ के जरीये सीखने वाली मशीन लर्निंग टेक्नॉलॉजी का अलग अलग इस्तेमाल किया जाता है.

निष्कर्ष:

आर्टिफिशियल इंटेलिजन्स यह एक कॉम्प्युटर काही दुसरा रुप है. यह कोई आसमान से नही उतरा इसे तो मानव ने जन्म दिया अब मानव ही इससे डरने लगा है. अगर चे आर्टिफिशियल इंटेलिजन्स भयानक रूप ले ले तो इंसान परेशानी मे पड सकता है पहेले ही मानव पर्यावरण प्रदूषण से जुझ रहा है और अब मानव ने यह आफत मोल ले ली. परंतू मानव को विश्वास है की मानव ही उसपर नियंत्रण करेगा.

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सारांश

जनपद मऊ के विभिन्न विकासखंडों में विभिन्न क्षेत्रों में लगे मुख्य कर्मकों का प्रतिशत में सबसे अधिक परदहा विकासखंड में पाया जाता है, जो 19.67 प्रतिशत है, उसके बाद रानीपुर 17.28 प्रतिशत, मुहम्मदाबाद गोहाना 17.21 प्रतिशत, कोपागंज 16.62 प्रतिशत, फतेहपुर मंडांव 15.42 प्रतिशत, दोहरी घाट 14.93 प्रतिशत, घोसी 14.21 प्रतिशत, बड़रांव 13.56 प्रतिशत, और रतनपुरा 13.83 प्रतिशत है। इसके अतिरिक्त, कृषि में लगे कर्मकों का प्रतिशत सबसे अधिक रानीपुर में 65.72 प्रतिशत है, उसके बाद मुहम्मदाबाद गोहाना 65.29 प्रतिशत, बड़रांव 63.52 प्रतिशत, रतनपुरा 59.58 प्रतिशत, फतेहपुर मंडांव 59.56 प्रतिशत, घोसी 56.94 प्रतिशत, दोहरी घाट 56.71 प्रतिशत, परदहा 55.83 प्रतिशत, और कोपागंज 55.02 प्रतिशत। अंत में, परिवारिक उद्योगों में लगे कर्मकों के प्रतिशत में सबसे अधिक कोपागंज विकासखंड में है, जो 14.03 प्रतिशत है, उसके बाद मुहम्मदाबाद गोहाना 7.99 प्रतिशत, रानीपुर 7.26 प्रतिशत, घोसी 6.71 प्रतिशत, परदहा 6.71 प्रतिशत, फतेहपुर मंडांव 6.69 प्रतिशत, बड़रांव 6.09 प्रतिशत, रतनपुरा 5.72 प्रतिशत, और दोहरी घाट 5.69 प्रतिशत। ये आंकड़े मऊ जिले की सामाजिक–आर्थिक गतिविधियों और उसकी समझ में मदद करते हैं।

मुख्य शब्द– मुख्य कर्मक, कृषि, परिवार के उद्योग, आर्थिक गतिविधियाँ।

अध्ययन क्षेत्र

जनपद मऊ जो जीवन और इतिहास से भरपूर एक जीवंत शहर है। जो $24^{0}47'$ उत्तरी अक्षांश से $26^{0}17'$ उत्तरी अक्षांश तथा $83^{0}17'$ पूर्वी देशान्तर से $84^{0}32'$ पूर्वी देशान्तर के मध्य, मध्य गंगा मैदान में स्थित पूर्वी उत्तर प्रदेश के आजमगढ़ मण्डल के पूर्वी भाग में स्थित है। जनपद का सम्पूर्ण क्षेत्रफल 1727.9 वर्ग किलोमीटर है जो उत्तर में घाघरा नदी, पूरब में बलिया, दक्षिण में गाजीपुर तथा पश्चिम में आजमगढ़ जनपद से सीमांकित है। घाघरा नदी ही प्राकृतिक आधार है जो गोरखपुर एवं देवरिया जनपदों को मऊ से अलग करती है।

मानचित्र कमांक–1 जनपद मऊ अवस्थिति मानचित्र

प्रस्तावना

जनपद मऊ, भारत के उत्तर प्रदेश राज्य में स्थित एक प्रमुख जिला है जो ऐतिहासिक और सांस्कृतिक महत्व के साथ अर्थव्यवस्था में भी महत्वपूर्ण भूमिका निभाता है। इस शोध–पत्र के माध्यम से, जनपद मऊ के व्यावसायिक वितरण व समृद्धि को समझने का प्रयास करेंगे। ये आंकड़े मऊ जिले के विभिन्न क्षेत्रों में रोजगार की स्थिति और उद्यमिता के स्तर को समझने में मदद करते हैं, जो कि विकास योजनाओं और नीतियों के निर्माण में महत्वपूर्ण हैं।

उद्देश्य–

1) मऊ जिले के विभिन्न विकासखंडों में मुख्य कर्मक का विश्लेषण करना।
2) प्रत्येक विकासखंड में कृषि और घरेलु या कुटीर उद्योगों में लगे मुख्य कर्मकों का अध्ययन।
3) जिले के कृषि और घरेलु के उद्योगों के संपूर्ण श्रमसंख्या का मूल्यांकन करना।

शोध विधितंत्र

जनपद मऊ के प्रत्येक विकासखंड में कृषि और परिवार के उद्योगों में लगे मुख्य कर्मचारियों का विश्लेषण करने हेतु जिला सांख्यिकीय पत्रिका ;2022द्ध से ऑकडों को प्राप्त किया गया हैं। जिसे डै म्गबमस 2021 के माध्यम के द्वारा विश्लेषित कर, सारणी व आरेख के माध्यम से स्पष्ट किया गया। इस शोध पत्र में दिये गये ऑकडे. द्वितीयक स्त्रोत खजिला सांख्यिकीय पत्रिका ;2022द्ध , से प्राप्त किया गया हैं।

कुल मुख्य कर्मक

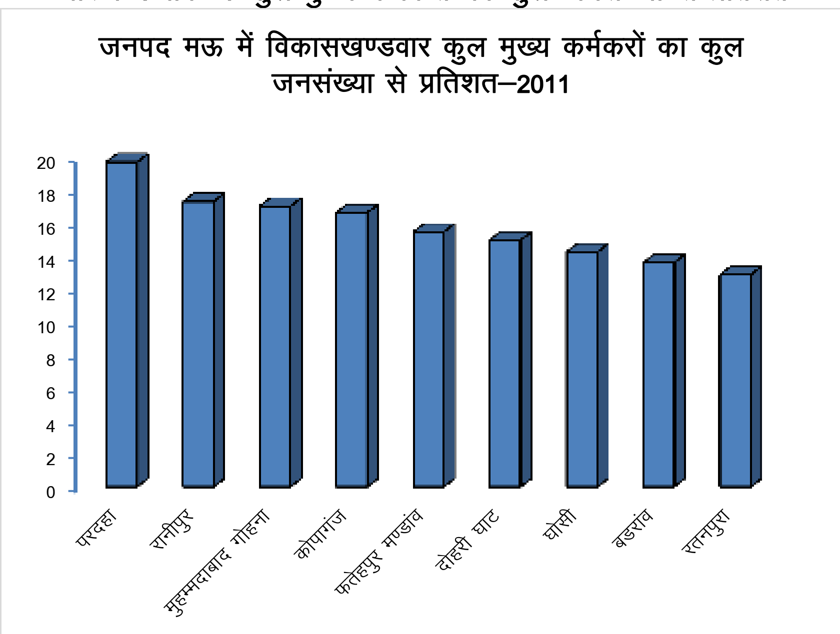
जनपद मऊ में विकासखंडवार कुल मुख्य कर्मकरो की कुल जनसंख्या से प्रतिशत का विवरण निम्नवत है– विकासखंड में परदहा में कुल मुख्य कर्मकरो का प्रतिशत 19.67 प्रतिशत है। रानीपुर विकासखंड में मुख्य कर्मकरो का प्रतिशत 17.28 है। मुहम्मदाबाद गोहना विकासखंड में मुख्य कर्मकरो का प्रतिशत 17.21 है। कोपागंज विकासखंड में मुख्य कर्मकरो का प्रतिशत 16.62 है। फतेहपुर मण्डांव विकासखंड में मुख्य कर्मकरो का प्रतिशत 15.42 है। दोहरी घाट विकासखंड में मुख्य कर्मकरो का प्रतिशत 14.93 है। घोसी विकासखंड में मुख्य कर्मकरो का प्रतिशत 14.21 है। बड़रांव विकासखंड में मुख्य कर्मकरो का प्रतिशत 13.56 है। रतनपुरा विकासखंड में मुख्य कर्मकरो का प्रतिशत 13.83 है।

सारणी क्रमांक–1 कुल मुख्य कर्मकरों का कुल जनसंख्या से प्रतिशत

जनपद मऊ में विकासखण्डवार कुल मुख्य कर्मकरों का कुल जनसंख्या से प्रतिशत–2011	
विकासखण्ड	**प्रतिशत**
परदहा	19.67
रानीपुर	17.28
मुहम्मदाबाद गोहना	17.21
कोपागंज	16.62
फतेहपुर मण्डांव	15.42
दोहरी घाट	14.93
घोसी	14.21
बडरांव	13.56
रतनपुरा	13.83

स्त्रोत– जिला सांख्यिकीय पत्रिका 2022

आरेख क्रमांक–1 कुल मुख्य कर्मकरों का कुल जनसंख्या से प्रतिशत



कृषि में लगे कर्मक

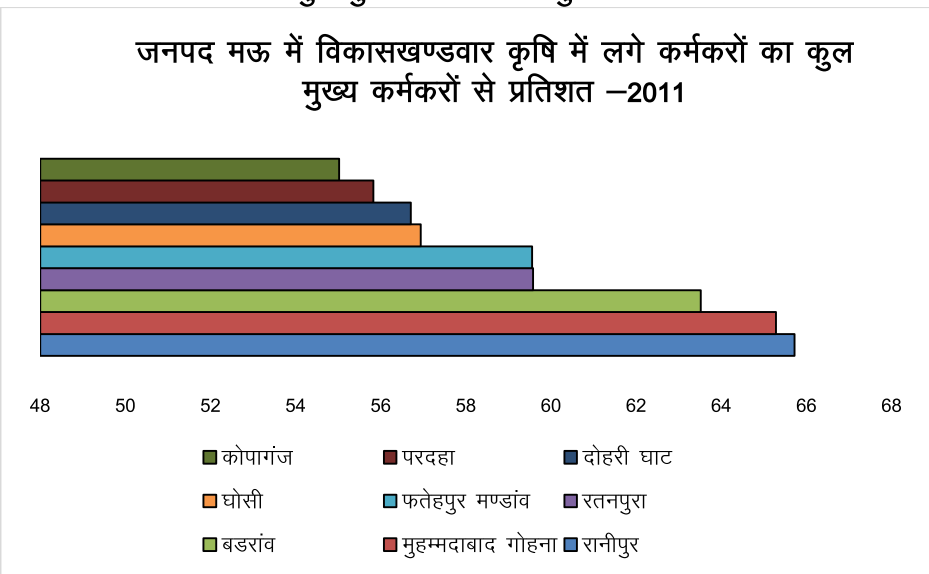
जनपद मऊ में विकासखंडवार कृषि में लगे कर्मकों का कुल मुख्य कर्म से प्रतिशत निम्नलिखित है– रानीपुर विकासखंड में कृषि में काम करने वाले कर्मकों का 65.72 प्रतिशत मुख्य कर्मकों के साथ है। मुहम्मदाबाद गोहना विकासखंड में कृषि में काम करने वाले कर्मकों का 65.29 प्रतिशत मुख्य कर्मकों के साथ है। बड़रांव विकासखंड में कृषि में काम करने वाले कर्मकों का 63.52 प्रतिशत मुख्य कर्मकों के साथ है। रतनपुरा विकासखंड में कृषि कर्मकों का 59.58 प्रतिशत मुख्य कर्मकों के साथ है। फतेहपुर मण्डांव विकासखंड में कृषि में काम करने वाले कर्मकों का 59. 56 प्रतिशत मुख्य कर्मकों के साथ है। घोसी विकासखंड में कृषि में काम करने वाले कर्मकों का 56.94 प्रतिशत मुख्य कर्मकों के साथ है। दोहरी घाट विकासखंड में कृषि में काम करने वाले कर्मकों का 56.71 प्रतिशत मुख्य कर्मकों के साथ है। परदहा विकासखंड में कृषि में काम करने वाले कर्मकों का 55.83 प्रतिशत मुख्य कर्मकों के साथ है। कोपागंज विकासखंड में कृषि में काम करने वाले कर्मकों का 55.02 प्रतिशत मुख्य कर्मकों के साथ है। ये आंकड़े 2011 की जनगणना के आधार पर हैं।

सारणी कमांक–2 कुल मुख्य कर्मकरों का कुल जनसंख्या से प्रतिशत

जनपद मऊ में विकासखण्डवार कृषि में लगे कर्मकरों का कुल मुख्य कर्मकरों से प्रतिशत –2011	
विकासखण्ड	**प्रतिशत**
रानीपुर	65.72
मुहम्मदाबाद गोहना	65.29
बडरांव	63.52
रतनपुरा	59.58
फतेहपुर मण्डांव	59.56
घोसी	56.94
दोहरी घाट	56.71
परदहा	55.83
कोपागंज	55.02

स्रोत– जिला सांख्यिकीय पत्रिका 2022

आरेख कमांक–2 कुल मुख्य कर्मकरों का कुल जनसंख्या से प्रतिशत



पारिवारिक उद्योग में लगे कर्मक

जनपद मऊ में विकासखंडवार पारिवारिक उद्योग में लगे कर्मकों का कुल मुख्य कर्मकों से प्रतिशत निम्नलिखित है– कोपागंज विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 14. 03 प्रतिशत मुख्य कर्मकों के साथ है। मुहम्मदाबाद गोहना विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 7.99 प्रतिशत मुख्य कर्मकों के साथ है। रानीपुर विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 7.26 प्रतिशत मुख्य कर्मकों के साथ है। घोसी विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 6.71 प्रतिशत मुख्य कर्मकों के साथ है। परदहा विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 6.71 प्रतिशत मुख्य कर्मकों के साथ है। फतेहपुर मण्डांव विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का

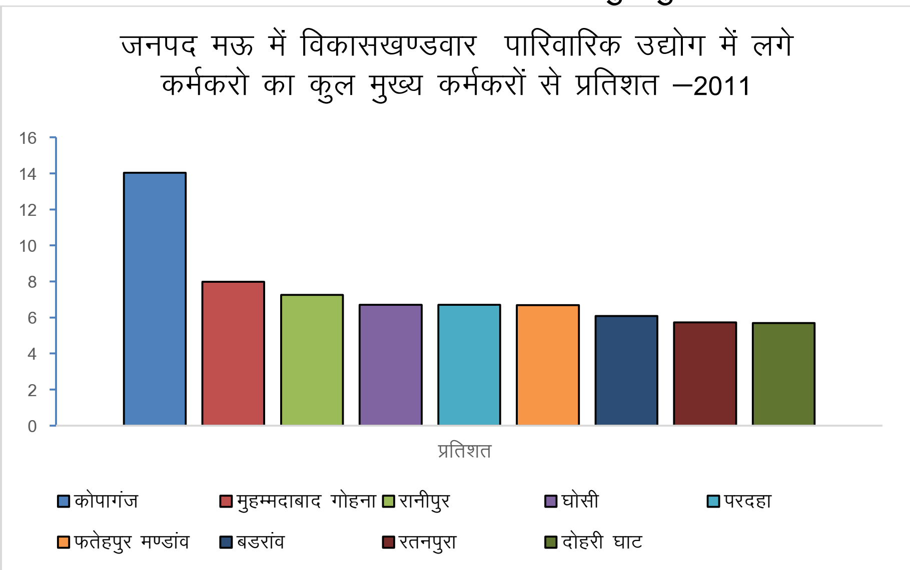
6.69 प्रतिशत मुख्य कर्मकों के साथ है। बड़रांव विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 6.09 प्रतिशत मुख्य कर्मकों के साथ है। रतनपुरा विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 5.72 प्रतिशत मुख्य कर्मकों है। दोहरी घाट विकासखंड में पारिवारिक उद्योग में काम करने वाले कर्मकों का 5.69 प्रतिशत मुख्य कर्मकों के साथ है। ये आंकड़े 2011 की जनगणना के आधार पर हैं।

सारणी क्रमांक–3 पारिवारिक उद्योग में लगे कर्मकरो का कुल मुख्य कर्मकरों से प्रतिशत

जनपद मऊ में विकासखण्डवार पारिवारिक उद्योग में लगे कर्मकरो का कुल मुख्य कर्मकरों से प्रतिशत –2011	
विकासखण्ड	**प्रतिशत**
कोपागंज	14ण03
मुहम्मदाबाद गोहना	7ण99
रानीपुर	7ण26
घोसी	6ण71
परदहा	6ण71
फतेहपुर मण्डांव	6ण69
बडरांव	6ण09
रतनपुरा	5ण72
दोहरी घाट	5ण69

स्त्रोत– जिला सांख्यिकीय पत्रिका 2022

आरेख क्रमांक–3 पारिवारिक उद्योग में लगे कर्मकरो का कुल मुख्य कर्मकरों से प्रतिशत



निष्कर्ष एवं सुझाव

आर्थिक गतिविधियों का विविधीकरण जिसमें कृषि ज्यादातर विकास खंडों में प्रमुख व्यवसाय है, लेकिन अन्य क्षेत्रों में विविधीकरण की संभावना है, जिससे कृषि पर निर्भरता को कम किया जा सकता है और समग्र आर्थिक विकास को बढ़ावा मिल सकता है। कौशल विकास कार्यक्रम, क्षमता विकास कार्यक्रम को लागू करें ताकि कर्मक वर्ग की क्षमताओं को बढ़ावा मिले, जिससे वे कृषि और परिवारिक उद्योगों के अलावा विभिन्न क्षेत्रों में अवसरों का पता लगा सकें। बुनियादी संरचना विकास में निवेश करें, विशेषकर ग्रामीण क्षेत्रों में, ताकि कृषि के बाहर और छोटे पैमाने पर उद्योगों के विकास का समर्थन किया जा सके। उद्यमिता को प्रोत्साहित करें, वित्तीय प्रोत्साहन, प्रशिक्षण, और सहायता सेवायें प्रदान किया जाना चाहियें। मऊ जिला अपनी संभावनाओं को धारण करके सतत आर्थिक विकास और निवासियों के लिए बेहतर आजीविका का सुधार कर सकता है।

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भारतीय लोकशाहीतील निवडणुक आयोगाचे महत्व

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सारांश :

भारतातील लोकशाही शासनव्यवस्थेत लोकसभा व राज्य विधानसभेच्या निवडणुकांना फार महत्त्व प्राप्त झालेले आहे. म्हणूनच सर्वपक्षीय स्पर्धात्मक निवडणुकीशिवाय खरी लोकशाही अस्तित्वात येऊ शकत नाही, असे म्हटले जाते. परंतु निवडणुकीची स्पर्धा निष्पक्ष, स्वतंत्र व मोकळ्या वातावरणात होणे गरजेचे असते. तसेच मतदारांनी देखील आपले मत वापरताना आपल्या मताशी प्रामाणिक राहून मतदान करणे आवश्यक असते. परंतु त्यामध्ये अनेक अडचणी येतात. त्यात प्रामुख्याने मतदारांवर अनेक प्रकारचे दडपण येते, प्रचारयंत्रणेचा मतदारांवर पडणारा प्रभाव, राजकीय पक्षांनीही मतदारांना अनेक प्रकारे गुंतवून ठेवलेले आढळते. त्यामुळे निवडणुकीच्या संदर्भात भ्रष्टाचार व आक्षेपार्ह गैरप्रकार होण्याची शक्यता मोठ्या प्रमाणात असते. त्यामुळे राज्यकारभारात शांततामय मार्गाने बदल घडवून आणण्याच्या निवडणुकीच्या मूळ हेतूंशी हे सर्व विसंगत असते. या सर्व अडचणी दूर करण्यासाठी आपल्या देशात विविध कायदे केलेले आढळतात. प्रचारपद्धती, निवडणुकीचा खर्च, निवडणुकीसाठी पैसा जमा करण्याचे मार्ग या सर्वांवर कायद्याने मर्यादा घालण्याचे प्रयत्न केला आहे. काही ठिकाणी राजकीय पक्षांना निवडणूक प्रक्रियेमध्ये सहभागी करण्याचा प्रयत्न केलेला दिसतो तर काही ठिकाणी निवडणुका अपक्षीय / बिनविरोध स्वरूपाच्या होण्याची प्रथाही पाडण्याचा प्रयत्न होताना दिसतो.निवडणूक आयोग लोकशाहीची संस्थात्मक प्रक्रिया व चौकट गतिमान करत असतो. त्यामुळे निवडणुकांचे विश्वसनीय संचलन होते, कारण एक तटस्थ यंत्रणा म्हणून ठोस पाउले उचलणारी संस्था दिसून येते. आयोगामार्फत निवडणूक प्रचारात धार्मिक प्रचाराला पायबंद घालण्याचा उपाय आयोगाकडून शोधला जातो. त्याचबरोबर गरीब अल्प शिक्षित आणि वंचित घटक निवडणुकीत सक्रियपणे भाग घेवू शकेल याकरिता जनजागृती करीत असतो. तसेच राजकीय आचार संहितेची अंमलबजावणी करून पारदर्शकपणे निवडणुका घेतल्या जातात, ज्यामुळे राजकारणाचे गुन्हेगारीकरण, निवडणूक खर्चाची समस्या, भ्रष्टाचार, हिंसा, खोटे मतदान, निवडणूक यादीतील चुका, निकालातील त्रुटी, मतदारांची उदासीनता, आशाप्रश्न व समस्यांची सोडवणूक करून भारतीय निवडणूक आयोग लोकशाहीसंस्था संचलित, नियंत्रित व गतिशील बनवण्यासाठी प्रयत्नशील असतो. म्हणूनच भारतीय लोकशाहीच्या विकासात निवडणूक आयोगाची महत्वपूर्ण भूमिका असल्याचे दिसून येते.

सूचक शब्द: भारतीय लोकशाही, निवडणूक आयोग; राजकीय पक्ष; केंद्रीय घटना समिती; फेडरल विधानसभा; कलम ३२४

प्रस्तावना :

लोकशाही आणि निवडणुका या एकाच नाण्याच्या दोन बाजू समजल्या जातात. कोणत्याही समाजात निवडणुकीचा अर्थ आणि भूमिका समजून घेण्यासाठी आपल्याला निवडणूक प्रक्रियेचा सखोल अभ्यास करणे गरजेचे असते. लोकशाहीत लोकांच्या इच्छेनुसार ठराविक कालावधीच्या निवडणुकांद्वारे निर्णय घेतला जातो. निवडणुका लोक आणि सरकार यांच्यात महत्त्वाचा दुवा साधताना दिसतात. आपल्या राज्यघटनेत निवडणूक हा शब्द व्यापक अर्थाने वापरला गेला आहे. कारण निवडणुकीची अधिसूचना जारी झाल्यापासून उमेदवाराच्या निवडीची घोषणा झाल्यापर्यंत तसेच पुढे होणाऱ्या निवडणुकीच्या संपूर्ण प्रक्रियेचा समावेश निवडणूक प्रक्रियेत होतो. भारत हा जगातील सर्वात मोठ्या लोकशाहीपैकी एक असल्याने भारत स्वतः केंद्र आणि राज्य स्तरावर मुक्त, निष्पक्ष आणि शांततापूर्ण निवडणुका घेण्यासाठी तरतूद करीत असतो. भारतातील निवडणुकीचे यश हे मतदार, उमेदवार, राजकीय पक्ष आणि निवडणूक यंत्रणा यावर अवलंबून असते.

अभ्यासाची उद्दिष्टे :

1) भारतीय निवडणूक आयोगाच्या इतिहासाचा अभ्यास करणे.

2) भारतीय निवडणुक आयोगाची रचना कार्य आणि भूमिका यांचा अभ्यास करणे.
3) लोकशाही मधील भारतीय निवडणूक आयोगाचे महत्त्व अभ्यासणे.
4) निवडणूक आयोगासमोरील समस्या आव्हाने शोधून त्यावर उपाययोजना सुचविणे.

संशोधन पद्धती :

सदर शोध निबंधासाठी विश्लेषणात्मक संशोधन पद्धतीचा उपयोग केला असून संशोधकाने दुय्यम स्रोतांमधील ग्रंथ, पुस्तके, शोधनिबंध, नियतकालिके यांचा वापर केला आहे.

निवडणूक आयोगाचा इतिहास :

भारत सरकार कायदा १९३५ नुसार फेडरल विधानसभा आणि प्रांतीय विधानसभांच्या मुक्त आणि निष्पक्ष निवडणुका घेण्यासाठी भारतीय निवडणूक आयोगाची स्थापना करण्याची कोणतीही तरतूद नव्हती. १९४६ ते १९४९ दरम्यान भारतात अस्तित्वात असलेल्या संविधान सभेने आपली राज्यघटना तयार केली आणि केंद्र व राज्य पातळीवरील सर्व निवडणुका आयोजित करण्यासाठी व त्यावर नियंत्रण ठेवण्यासाठी 'केंद्रीय घटना समिती' नावाची उप-समिती स्थापन करून निवडणूक आयोगाच्या स्थापनेसाठी २९ जुलै १९४७ रोजी संविधान सभेत जोरदार चर्चा झाली. भारतीय राज्यघटनेच्या कलम ३२४ अन्वये भारतात निवडणूक आयोगाची स्थापना २५ जानेवारी १९५० रोजी संसद आणि राज्य विधान मंडळाच्या निवडणुकांच्या देखरेख, दिशा, नियोजन, तयारी आणि संचालन करण्यासाठी करण्यात आली.

भारतीय निवडणूक आयोगाने चांगले काम करावे, यासाठी एक स्वतंत्र निवडणूक आयुक्त व त्याच्या मदतीसाठी इतर निवडणूक आयोगाची रचना करण्यात आली. मुख्य निवडणूक आयुक्तांच्या निवड प्रक्रियेबाबत राज्यघटनेत स्पष्ट असा कुठेही उल्लेख नाही. एकंदरीत मुख्य निवडणूक आयोगाची नेमणूक करण्याचा अधिकार राष्ट्रपतींना असतो. भारतीय निवडणूक आयोगास आपल्या सचिवालयात लागणारे कर्मचारी भरती करण्याचा अधिकार नाही. त्यामुळे त्यांना घटनात्मक कार्य करण्यासाठी केंद्र व राज्य शासनावर अवलंबून राहावे लागते. त्यांना हवे असल्यास राज्य व केंद्र सरकार कर्मचारी व अधिकारी उपलब्ध करून देऊ शकते, असा पूर्वेपासून नियम चालत आलेला आहे. त्यामुळे त्यांना आपल्या कर्मचाऱ्यांवर नियंत्रण देखील ठेवता येत नाही.

निवडणूक आयोगाची कार्ये :

निवडणूक आयोगाचे ब्रीदवाक्य 'कोणीही मतदार मागे राहू नये' हे होते. निवडणुका मुक्त आणि निष्पक्ष पार पाडण्यासाठी भारतीय निवडणूक आयोगाने नेहमीच तटस्थता राखली होती व आहे. भारताच्या निवडणूक आयोगामध्ये संपूर्ण देशासाठी मतदार यादी तयार करणे, देखरेख करणे, अद्यावत करणे आणि आवश्यक फेरफार करणे यासारखे अधिकार देण्यात आले. तसेच राजकीय पक्षांची नोंदणी करणे, मान्यताप्राप्त पक्षांना चिन्हे वाटप करणे, राष्ट्रीय-राज्य पातळीवरील राजकीय पक्षांमधील विवादांवर निर्णय घेण्याचा अधिकार भारतीय निवडणूक आयोगाला आहे. तसेच निवडणूक जाहीरनामे, प्रचार खर्च आणि सर्व प्रकारच्या प्रशासकीय व आर्थिक क्रियाकलापांवर लक्ष ठेवण्याचे काम देखील भारतीय निवडणूक आयोगाला करावे लागते. निवडणूक आयोग यासंदर्भात केंद्र आणि राज्य निवडणूक यंत्रणेच्या अधिकाऱ्यांना वेळोवेळी सूचना आणि निर्देश देत असतात. स्थापनेपासून आतापर्यंत अनेक नवीन आणि आव्हानात्मक कार्य भारतीय निवडणूक आयोगाने हाती घेतले आहेत. जसे की सर्व मतदारांना इलेक्टर्स फोटो आयडेंटिटी कार्ड (EPIC), इलेक्ट्रॉनिक मतदान यंत्र (EVM),मतदार याद्यांचे संगणकीकरण, निवडणुकीदरम्यान आदर्श आचारसंहितेची अंमलबजावणी, सरकारी एजन्सी, गैरसरकारी संस्था आणि मीडिया यांच्या मदतीने मतदारांसाठी जनजागृती मोहिमेचे आयोजन करणे यासारखी कामे निवडणूक आयोगाला करावी लागतात.

भारतीय निवडणूक आयोगाचे महत्व :

निवडणूक आयोगाशी संबंधित वेगवेगळया लेखकांनी वेगवेगळे लेख आणि पुस्तके लिहिलेले असले तरी भारतीय लोकशाहीमधील निवडणूक आयोगाचे महत्त्व यासंदर्भात अद्याप तरी व्यापक स्वरूपात अभ्यास झालेला नाही, असे दिसून येते. जगातील सर्वात मोठी लोकशाही असल्याने संसद आणि राज्य विधान मंडळांच्या सार्वत्रिक निवडणुका घेणे, भारतीय निवडणूक आयोगासाठी सोपे काम नाही. शिवाय भारतीय निवडणूक आयोगाचे महत्व अभ्यासणे गरजेचे आहे.

निवडणुकीतील गैरप्रकारांना आळा घालण्यासाठी निवडणूक आयोगाने वेगवेगळया मार्गाने आवश्यक ती पावले उचलली आहेत. भारतीय राज्यघटनेने कलम ३२४ अन्वये नियुक्त केलेल्या भारतीय निवडणूक आयोगाच्या पारंपारिक कार्यामध्ये आयोगासमोरील समस्या आणि आव्हानांनुसार बदल केले आहे. निवडणूक आयोगाचे कामकाज सुरळीत चालण्यासाठी नवनवीन बदल करणे गरजेचे वाटते आणि वास्तविक परिस्थितीमध्ये हे बदल मतदारांना फोटो आधारित ओळखपत्र, इलेक्ट्रोनिक्स मतदान यंत्रे, मतदार याद्या अद्ययावत करणे, संगणकीकरण करणे, एकही मतदाराचे नाव पुन्हा येणार नाही यासाठी निवडणूक आयोग आजपावेतो कार्यरत आहेत.

निवडणूक आयोगासामोरीत समस्या :

भारतीय निवडणूक आयोगाचे महत्त्व अभ्यासताना आयोगासमोरील समस्या, आव्हाने यांचा अभ्यास करण्यासाठी आजपावेतो तारकुंडे समिती, टी.एन.शेषन शिफारस समिती, दिनेश गोस्वामी समिती, इंद्रजीत समिती यासारखे अनेक आयोग व समित्या नेमल्या. संशोधकास भारतीय निवडणूक आयोगासमोर काही समस्या असलेल्या दिसून येतात. त्यामध्ये प्रामुख्याने समाजातील काही गट हे निवड भारतीय निवडणूक यंत्रणेला भ्रष्ट करून तिचे स्वरूप लोकशाहीचे नोटशाहीत करण्यात गुंतलेले आहेत. यात प्रामुख्याने सत्तारूढ पक्षाची महत्त्वाची भूमिका असलेली दिसून येते. अशाच प्रकारे सत्तारूढ पक्ष शासकीय साधनांचा चुकीचा वापर करून निवडणूक प्रक्रियेचे स्वरूप बिघडवताना दिसते. यामुळे काही पक्ष व त्यांचे पदाधिकारी

हे निवडणूक आयोगाचा दुरुपयोग करताना दिसतात. तसेच निवडणुकीत प्रचार करताना अनेक मोठमोठे राजकीय पक्ष जनतेला मोठी व खोटी आश्वासने देतात. भारताच्या निवडणूक यंत्रणेला विचलित करण्यात अनेक घटक कार्यरत असतात. यामध्ये प्रसार माध्यमांची भूमिका महत्त्वाची मानली जाते. त्याचप्रमाणे सांप्रदायिकता, जातीयवाद, प्रदेशवाद, भाषावाद आणि पैसा या सर्वांची देखील महत्त्वाची भूमिका असते. तसेच काही ठिकाणी गुंडगिरी, दडपशाहीचा वापर करून निवडणुका जिंकलेले अनेक राजकीय पक्ष दिसून येतात. तर काही ठिकाणी गोळीबारासारख्या अप्रिय घटना घडवून तर काही ठिकाणी मतदान केंद्र ताब्यात घेतले जातात व तेथील मतदारांना दमकावून बळजबरीने मतदान मिळवले जाते. त्यामुळे या समस्या आजपावेतो निवडणूक आयोगाला सोडविता आलेल्या नाहीत.

निष्कर्ष :

कोणत्याही निवडणूकीतील मिळालेल्या निकालांचा अर्थ राजकीय पक्षांना मिळालेल्या एकूण जागांच्या संदर्भात लावला जातो. निवडणूकांचे लोकशाहीतील कार्य राजकीय पक्षांकडूनच पार पाडले जाते. आधुनिक काळात शासनाने समाजासाठी करावयाच्या कामांचे प्रमाण व गुंतागुत वाढली आहे. या कामांची जबाबदारी उचलण्यासंबंधी व्यक्तिगत उमेदवाराला जबाबदार धरणे शक्य होते. विधिमंडळातील प्रतिनिधी असंघटीत व स्वतंत्र असतील तर सुसूत्रपणे काम करता येणार नाही, सरकारला स्थैर्य येणार नाही, म्हणून राजकीय पक्ष व निवडणूक आयोगामुळेच लोकशाही शासन राबविता येते. निवडणुकीत लोकांनी व्यक्त केलेल्या मतांचा अर्थ लावणे व त्या अर्थाला योग्य तो कायमस्वरूपी आकार देणे, हे प्रमुख कार्य निवडणूक आयोगाला करावयाचे असते. निवडणुकीची पहिली पायरी म्हणजे निवडणुकीसाठी उमेदवार निवडणे. हे काम राजकीय पक्ष करतात व त्यानंतर निवडणुकीतील पुढील प्रक्रिया सुरू होते. अशा प्रकारे निवडणूक प्रक्रियेत राजकीय पक्षांकडे मतदार व सरकार यांच्यामधील मध्यस्थाची भूमिका येते. तर निवडणूक आयोगाला यांच्यावर देखरेख ठेवणारी यंत्रणा म्हणून पाहिले जाते. म्हणून कोणत्याही निवडणुकीतील निवडणूक आयोगाचे महत्व अनन्यसाधारण असते.

संदर्भ सुची :

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सारांश:

पीक केंद्रीकरण म्हणजे विशिष्ट वेळी कोणत्याही प्रदेशातील कोणत्याही पिकाच्या घनतेतील फरक होय. कृषी क्षेत्रांचे वर्णन करण्यासाठी ही एक अतिशय महत्त्वाची पद्धत मानली जाते. एखाद्या क्षेत्रातील पीक केंद्रीकरण हे मुख्यत्वे तेथील स्थलाकृतिक रचना, भौगोलिक घटक यात तापमान, पर्जन्य, आर्द्रता तसेच शेतकऱ्याच्या कृषी पद्धतीवर अवलंबून असते. पीक पद्धतीचे प्रादेशिक वर्णन निश्चित करण्यासाठी भूगोलशास्त्रज्ञांनी स्थान गुणांक पद्धतिचा वापर केले आहे. भारतातील मध्यभागी स्थित पूर्व विदर्भ प्रदेश एक विलक्षण कृषी भूदृश्य दर्शवितो. महाराष्ट्रातील पूर्व विदर्भात एकूण सहा जिल्हे आहेत त्यापैकी गोंदिया जिल्हा हा तांदळाचे धान्य कोठार म्हणून ओळखला जातो. त्याचबरोबर गहू, सोयाबीन, चना, तूर, कापूस आणि संत्री या पिकांसाठीही हा प्रदेश प्रसिद्ध आहे. प्रस्तुत संशोधन पेपर हा पूर्णत: द्वितीय आकडेवारीवर आधारित आहे ज्यामध्ये पूर्व विदर्भातील 6 जिल्ह्यांतील पीक केंद्रीकरणाचा अभ्यास केलेला आहे. यासाठी भाटिया यांच्या (1965), पीक केंद्रीकरणाच्या पद्धतीचा वापर करून वर्ष 2010 ते 2020 हा कालावधी संशोधनासाठी घेण्यात आलेला आहे. प्रत्येक पिकाच्या निर्देशांकाच्या आधारे कमी, मध्यम आणि उच्च केंद्रीकरणाचे विभाग तयार केले जातात आणि त्याचे तुलनात्मक विश्लेषण केले जाते. पूर्व विदर्भातील पीक केंद्रीकरणामध्ये काही बदल दिसून येतात. या पीक केंद्रीकरणाच्या पॅटर्नमागील कारणांचीही चर्चा या शोध निबंधामध्ये केलेली आहे. या तुलनात्मक अभ्यासामुळे पूर्व विदर्भातील पीक केंद्रीकरणाची पद्धत तसेच या पीक केंद्रीकरण पद्धतीमागील भौगोलिक पार्श्वभूमी आणि अभ्यास क्षेत्रातील शेतकऱ्यांचा कल याची कल्पना येते. अशा प्रकारचा अभ्यास प्रदेशाच्या पुढील कृषी नियोजनासाठी उपयुक्त ठरू शकतो.

शब्द कुंजी: पूर्व विदर्भ, पीक केंद्रीकरण, पीक विविधता, कृषी भूमी, भौगोलिक घटक

प्रस्तावना:

शेती हा भारतीय अर्थव्यवस्थेचा कणा असल्याचे म्हटले जाते. माणसाच्या आर्थिक प्रक्रियेतील प्राचीन आणि प्राथमिक व्यवसाय आहे. शेतीचा विकास हा त्या प्रदेशाच्या भौगोलिक परिस्थितीवर अवलंबून असतो त्यामुळे प्रदेशानुसार शेतीचे स्वरूप हे बदलत असते. महाराष्ट्र राज्य हे कृषी क्षेत्रातही भारतातील आघाडीचे राज्य म्हणून ओळखले जाते. ग्रामीण महाराष्ट्रातील बहुतांश लोक आजही शेतीची कामे करतात. कृषी क्षेत्र हे राज्याच्या अर्थव्यवस्थेच्या मुख्य स्तंभांपैकी एक आहे. भारताच्या कृषी नकाशावर महाराष्ट्र हे प्रमुख स्थानावर आहे. अशा राज्यात शेतीच्या स्वरूपामध्ये प्रादेशिक तफावत दिसून येते. आजही राज्यातील काही भागात पारंपारिक शेती दिसून येते तर काही भागांमध्ये शेतीचे मोठ्या प्रमाणावर व्यापारीकरण केले जाते. पिकांमधील ही विविधता महाराष्ट्रातही दिसून येते. राज्याच्या पूर्व विदर्भाचा समावेश असलेल्या नागपूर विभागाच्या अतिपूर्वेकडील भागात एक विशिष्ट पीक पद्धती पाहावयास मिळते. हा प्रदेश त्याच्या वैशिष्टसाठी प्रसिद्ध आहे, पूर्व विदर्भ प्रदेश संत्रा उत्पादक प्रदेश म्हणून ओळखले जाते तर गोंदिया हे तांदळाचे गोडाऊन म्हणून काम करत आहे, दोन्ही राज्याच्या कृषी क्षेत्रात महत्त्वपूर्ण भूमिका बजावत आहेत. कोणत्याही प्रदेशातील पीक पद्धती ही त्या प्रदेशाच्या भौगोलिक परिस्थितीच्या समन्वयाचा परिणाम असतो. कृषी क्रियाकलापांचा सखोल अभ्यास करण्यासाठी आणि नियोजनाच्या उद्देशाने कृषी क्षेत्रीयीकरण करण्यात आले आहे. कृषी क्षेत्रीयीकरणाच्या विविध पद्धती अनेक तज्ञांनी मांडल्या आहेत. कृषी क्षेत्रीयीकरणाची एक महत्त्वाची पद्धत म्हणजे पीक केंद्रीकरण होय. विशिष्ट प्रदेशातील कोणत्याही विशिष्ट पिकाचे वर्चस्व आणि प्रभाव याला पीक केंद्रीकरण म्हणतात. पीक केंद्रीकरण मोजण्याच्या वेगवेगळया पद्धती आहेत. फ्लॉरेन्सने 1948, मध्ये पहिली पद्धत सामायिक केली त्यानंतर 1962 मध्ये चिशोल्मने, आपले योगदान दिले. भारतात एस.एस. भाटिया 1965 आणि जसबीर सिंग यांनी 1976 मध्ये कृषी क्षेत्रीयीकरणावर लक्ष केंद्रित करून स्थान गुणांक पद्धत सादर केली. ही पद्धत एखाद्या प्रदेशातील विशिष्ट पिकांच्या मर्यादांचे मूल्यांकन करते. यामुळे प्रदेशातील विशिष्ट पिकाच्या केंद्रीकरणामागील इतर घटक ओळखण्यास देखील

मदत होते. पीक केंद्रीकरणाच्या अभ्यासामुळे भूगोलशास्त्रज्ञांना फायदा होईल कारण ते विशिष्ट पिकाची विशिष्ट वेळी घनता प्रकट करते. त्यामुळे अशा केंद्रीकरणामागील प्रदेशाच्या भौगोलिक परिस्थितीचीही कल्पना येते.

अभ्यास क्षेत्र:

महाराष्ट्र राज्याच्या पूर्व विभागातील नागपूर विभाग हा पूर्व विदर्भ म्हणून ओळखला जातो. पूर्व विदर्भात भंडारा, गोंदिया, चंद्रपूर, वर्धा, नागपूर आणि गडचिरोली असे एकूण सहा जिल्हे आहेत. पुढे हे जिल्हे 60 तालुक्यांमध्ये विभागले गेले आहेत. अभ्यास क्षेत्राचा अक्षांश आणि रेखांशाचा विस्तार अनुक्रमे 18°39" ते 21°43" उत्तर आणि 78°3" ते 80°54" पूर्व आहे. प्रदेशाची उत्तर सीमा मध्य प्रदेश राज्याने सामायिक केली आहे. पूर्वेला छत्तीसगड तर दक्षिणेला तेलंगना राज्य आहे. अभ्यास क्षेत्राच्या पश्चिमेला अमरावती विभाग म्हणजे पश्चिम विदर्भ आहे. यवतमाळ आणि अमरावती जिल्ह्यांच्या सीमा वर्धा, नागपूर आणि चंद्रपूर यांनी सामायिक केल्या आहेत. हा प्रामुख्याने पठारी प्रदेश असून या प्रदेशाची उत्तर सीमा सातपुडा पर्वताच्या पायथ्याने व्यापलेली आहे. वर्धा-वैनगंगा नद्यांचे खोरे आणि त्यांच्या उपनद्या हे या प्रदेशाचे वैशिष्ट्य आहे. धाम, कन्हान, पेंच, बावनथडी, इरई, इंद्रावती ही या प्रदेशातील इतर महत्त्वाच्या नद्या आहेत. माणिकगड, गरमसूर, भामरागड, पिलकापार, सुरजागढ इत्यादीसारख्या स्थानिक टेकड्यांप्रमाणे या प्रदेशात काही उंच प्रदेश आहेत. हा हवामानाचा प्रदेश उष्ण उन्हाळा आणि थंड हिवाळ्याच्या हवामानाच्या वैशिष्ट्यांसह प्रसिद्ध आहे. या भागात पाऊस हा 100 ते 150 सेमी च्या दरम्यान पडतो जो पश्चिमेकडून पूर्वेकडे वाढत जातो. दक्षिण पश्चिम मान्सूनची बंगालच्या उपसागराची शाखा या प्रदेशातून जाते त्यामुळे या भागात चांगला पाऊस पडतो. या प्रदेशाचा पश्चिम भाग बेसाल्ट खडकाच्या काळ्या मृदेने व्यापलेला आहे आणि पूर्वेकडील भाग लॅटेराइट मृदेने झाकलेला आहे. ही मृदा काळी, कन्हार, मोरंड इत्यादी स्थानिक नावांनी ओळखली जाते. गोसेखुर्द, इटियाडोह, इरई, चंदपूर, पेंच हे या प्रदेशातील प्रमुख सिंचन प्रकल्प आहेत. गोंदिया आणि भंडारा जिल्हे मिळून "महाराष्ट्रातील तलाव जिल्हे" म्हणूनही या क्षेत्राला ओळखले जाते. अभ्यास क्षेत्राची ही सर्व परिस्थिती भात, गहू, तूर, चना, सोयाबीन इत्यादी पिकांसाठी आदर्श आहे. पूर्व विदर्भाचे एकूण भौगोलिक क्षेत्र 51336 चौ. किमी आहे. गडचिरोली जिल्ह्यात सर्वाधिक क्षेत्रफळ आहे. सर्वाधिक कृषी क्षेत्र 659692 हेक्टर नागपूर जिल्ह्यात नोंदवले गेले आहे तर सर्वात कमी कृषी क्षेत्र 209312.34 हेक्टर (घनदाट जंगलामुळे) गडचिरोली जिल्ह्यात आहे. 2011 च्या जनगणनेनुसार सर्वाधिक लोकसंख्या असलेला जिल्हा नागपूर आहे.

उद्दिष्टे: प्रस्तुत संशोधन पेपरमध्ये वर्ष 2010 ते 2020 या कालावधीत पूर्व विदर्भातील पीक केंद्रीकरणातील बदल ओळखण्याचा आणि पूर्व विदर्भातील पीक केंद्रीकरणातील बदलांचा अभ्यास करण्याचा प्रयत्न केला आहे.

आकडेवारी आणि संशोधन पद्धत: प्रस्तुत शोध निबधासाठी गोळा केलेली आकडेवारी ही द्वितीय स्त्रोतांकडून मिळवलेल्या आकडेवारीवर आधारित आहे. सुरवातीला पूर्व विदर्भातील सर्व सहा जिल्ह्यांच्या जिल्हा सामाजिक आर्थिक समालोचनातून 2010 आणि 2020 या वर्षातील एकूण कृषी क्षेत्र आणि विविध पिकांखालील क्षेत्राची आकडेवारी गोळा करण्यात आली आहे. त्यानंतर पीक केंद्रीकरण मोजण्यासाठी भाटिया (1965) यांनी विकसित केलेल्या स्थान गुणफल पद्धतीच्या आधारे दोन्ही वर्षांसाठी पीक केंद्रीकरण पद्धत लागू केली आहे.

$$\text{पीक केंद्रीकरण} = \frac{\text{घटक क्षेत्रीय युनिटमध्ये 'X' पिकाखालील क्षेत्र}}{\text{क्षेत्रीय युनिटमधील सर्व पिकांखालील क्षेत्र}} \Big/ \frac{\text{संपूर्ण प्रदेशातील 'X'}}{\text{पिकाखालील क्षेत्र}}$$

अभ्यास क्षेत्रातील सर्व सहा जिल्ह्यांसाठी 2010 आणि 2020 कालावधीतील सर्व निर्देशांकांची गणना करण्यात आली आहे. प्रत्येक पिकाच्या निर्देशांक मूल्यानुसार ते तीन वर्गांमध्ये विभागले गेले आहेत उदा. उच्च पीक केंद्रीकरण, मध्यम पीक केंद्रीकरण आणि कमी पीक केंद्रीकरण आकडेवारीच्या विश्लेषणासाठी तक्ते आणि नकाशे तयार केले आहेत या नकाशे आणि तक्त्याच्या मदतीने पीक केंद्रीकणाचा तुलनात्मक अभ्यास करण्यात आलेला आहे. तसेच इतर द्वितीय माहितीच्या मदतीने निष्कर्ष काढण्यात आले आहे.

पूर्व विदर्भातील कृषी क्षेत्र आणि पिके:

पूर्व विदर्भात सर्वाधिक कृषी क्षेत्र हे नागपूर जिल्ह्यात आहे, त्याखालोखाल चंद्रपूर, वर्धा, भंडारा आणि गोंदिया जिल्ह्यात दिसून येते. गडचिरोली जिल्हा हा जंगल क्षेत्रानी व्यापलेला असल्यामुळे या भागात कृषी खालील क्षेत्र तुलनेने कमी पाहावयास मिळते. 2010 ते 2020 या कालावधीत गोंदिया जिल्हा वगळता प्रत्येक जिल्ह्यातील कृषी खालील क्षेत्रात वाढ झाली आहे. नागपूर जिल्ह्यात कृषी क्षेत्रात (4437 हेक्टर) सर्वाधिक वाढ झाली आहे. भंडारा जिल्ह्यातील झाडीपट्टी भागातही या दशकात कृषी क्षेत्रात वाढ झाली आहे. वैनगंगा नदीवर बांधण्यात आलेल्या गोसेखुर्द धरणामुळे ही वाढ नोंदवली जाते. गोंदिया जिल्ह्यात 9799 हेक्टर शेतजमिनीची घट झाली आहे. पूर्व विदर्भात दोन कृषी-हवामान झोन आहेत. वर्धा आणि

नागपूर जिल्ह्यांत सरासरी 900 ते 1100 सें.मी. इतका मध्यम स्वरूपाचा पाऊस पडतो. तर भंडारा, गोंदिया, चंद्रपूर आणि गडचिरोली हे जिल्हे 1100 ते 1500 सें.मी. जास्त पावसाच्या प्रदेशात येतात. खरीप आणि रब्बी ही दोन्ही पिके अभ्यास क्षेत्रात प्रामुख्याने घेतली जातात. गहू, तांदूळ, तूर, हरभरा, मूग, उडीद, लाखोरी, वटाणा, जवस, सोयाबीन, कापूस, चारा पिके, औषधी पिके, फळे व भाजीपाला यासारख्या विविध पिकांची लागवड अभ्यास क्षेत्रात केली जाते. प्रदेशातील पीक केंद्रीकरणाचा अभ्यास करण्यासाठी तांदूळ, गहू, कडधान्ये आणि शेंगा यांसारखी मुख्य हंगामी पिके कापूस, तेलबिया फळे आणि भाजीपाला या पिकांचा विचार केला जातो. वर्धा, नागपूर आणि चंद्रपूर जिल्ह्यांमध्ये 2010 मध्ये ज्वारी हे महत्त्वाचे पीक होते, परंतु 2020 मध्ये ज्वारीचे क्षेत्र कृषी क्षेत्राच्या 1 टक्के खाली आहे यावरून ज्वारीच्या आयातीतील घट दिसून येते. त्यामुळे, ज्वारी या प्रदेशातील पीक केंद्रीकरणाच्या अभ्यासासाठी समाविष्ट नाही.

पूर्व विदर्भातील पीक केंद्रीकरण (2010-2020):

पीक केंद्रीकरण म्हणजे विशिष्ट कालावधीत आणि विशिष्ट क्षेत्रात पिकाच्या घनतेमध्ये होणारा बदल. पीक केंद्रीकणामुळे विशिष्ट प्रदेशातील कोणत्याही पिकाच्या वर्चस्वाची कल्पना ही अभ्यासकला लक्षात येते. कोणत्याही पिकासाठी भौगोलिक परिस्थिती ही अनुकूल असल्यास त्या प्रदेशातील त्या पिकाची घनता ही वाढते. प्रतिकूल भौगोलिक परिस्थिती असताना पिकाची घनता ही कमी होते. यामुळे, 2010 ते 2020 या कालावधीतील पूर्व विदर्भातील प्रमुख पिकांचे पीक केंद्रीकरण भाटिया यांचे सूत्र (1965) वापरून काढण्यात आले आहे. प्रत्येक पिकासाठी काढलेल्या निर्देशांकांवरून अभ्यास क्षेत्रासाठी उच्च, मध्यम आणि कमी घनता असे तीन वर्ग केले आहे. या आधारावर 2010 आणि 2020 साठी तक्ते तयार केले आहेत. या तक्त्या आणि नकाशांचा अभ्यास केल्यानंतर, 2010 ते 2020 या कालावधीत प्रत्येक पिकाच्या केंद्रीकरणामध्ये काही बदल नोंदवले जातात. अभ्यास क्षेत्रातील प्रत्येक पिकाच्या पीक केंद्रीकरणातील हा बदल खाली दिलेला आहे

तक्ता-1 पूर्व विदर्भातील पीक केंद्रीकरणातील बदल (वर्ष 2010 ते 2020)

जिल्हे	वर्ष	तांदूळ	गहू	दाळी / शेंगा	कापूस	तेलबिया	फळे / भाज्या
भंडारा	2010	2.15	1.18	1.10	निरंक	0.26	0.93
	2020	2.00	0.78	0.81	निरंक	0.24	0.87
गोंदिया	2010	2.71	0.49	0.64	निरंक	0.15	0.34
	2020	2.53	0.22	0.52	निरंक	0.09	0.50
नागपूर	2010	0.23	1.24	1.04	1.00	1.50	1.93
	2020	0.39	2.05	1.09	1.13	1.27	1.86
वर्धा	2010	0.003	1.05	1.23	2.58	1.32	0.92
	2020	निरंक	0.69	1.33	1.89	2.00	0.60
चंद्रपूर	2010	1.00	1.20	0.94	0.92	1.14	0.23
	2020	0.98	0.57	1.02	1.25	0.91	0.53
गडचिरोली	2010	2.46	0.13	0.76	0.005	0.14	0.21
	2020	2.27	0.02	0.54	0.26	0.15	0.31

तांदूळ:

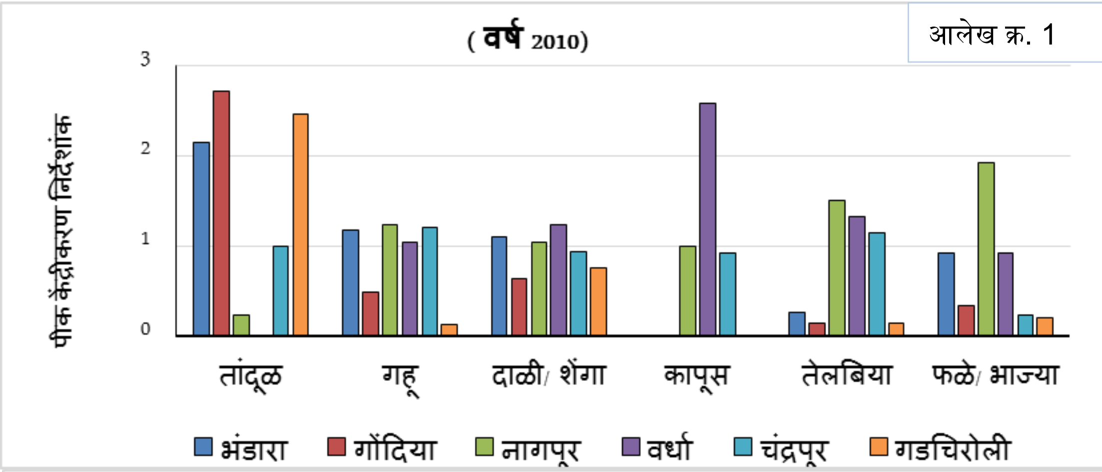
महाराष्ट्रात कोकण आणि पूर्व विदर्भ भात पिकासाठी प्रसिद्ध आहे. तांदूळ हे या भागातील मुख्य अन्न पीक आहे. श्रीराम, बासमती, एचएमटी, चिन्नोर इत्यादी तांदळाच्या जाती अभ्यासाच्या क्षेत्रात प्रामुख्याने घेतल्या जातात. 2010 नुसार भंडारा, गोंदिया आणि गडचिरोली जिल्ह्यात भात पिकाचे केंद्रीकरण जास्त आहे. चंद्रपूर जिल्ह्यात मध्यम पीक केंद्रीकरण तर वर्धा आणि नागपूर जिल्ह्यात कमी पीक केंद्रीकरण दिसून येते. पावसाच्या वितरणाचा परिणाम जिल्ह्यातील भात पिकाच्या केंद्रीकरणावर सहज लक्षात येऊ शकतो. जास्त पर्जन्यमान आणि चिखलयुक्त माती ही या जिल्ह्यांत भात पिकासाठी अनुकूल परिस्थिती आहे. 2020 मध्ये मात्र हे चित्र बदलले आहे. वर्धा जिल्ह्यातून भात पिकाची लागवड पूर्णपणे नाहीशी झाली आहे. भंडारा आणि चंद्रपूर जिल्ह्यांमध्ये भात पिकाचे केंद्रीकरण हे अनुक्रमे उच्च ते मध्यम आणि मध्यम ते कमी आहे. (तक्ता-1) कारण अभ्यास काळात या जिल्ह्यांमध्ये इतर पिकांचे महत्त्व वाढलेले दिसून येते. नागपूर जिल्ह्यात भात पिकाच्या क्षेत्रात उल्लेखनीय वाढ नोंदवली गेली आहे.

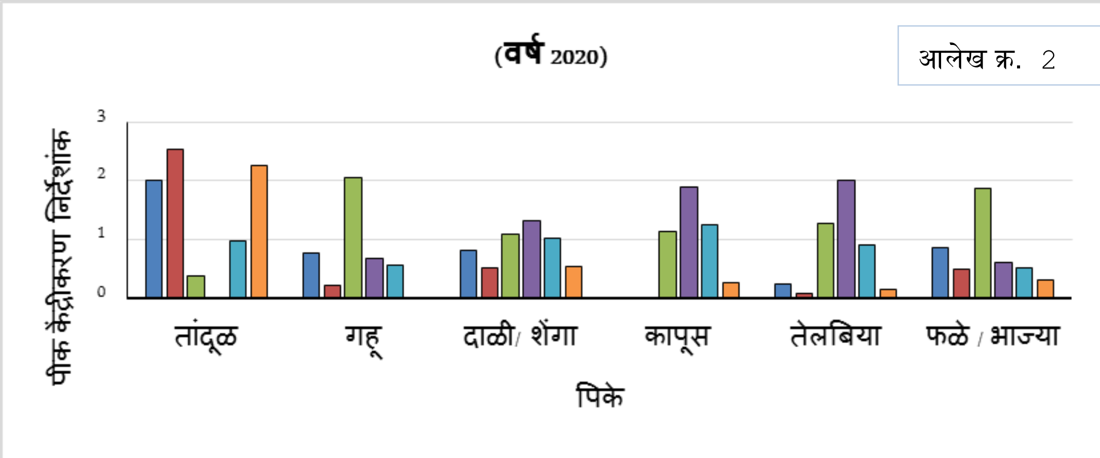
गहू:

गहू हे रब्बी पीक आहे आणि त्याला शाश्वत पाणी पुरवठ्याची गरज आहे. हे महाराष्ट्रातील प्रमुख अन्न पीक आहे. 2010 मध्ये गहू पिकाची सर्वाधिक घनता ही नागपुर,

चंद्रपूर आणि भंडारा जिल्ह्यात आहे. वर्धा जिल्ह्यात मध्यम तर गोंदिया व गडचिरोली जिल्ह्यात ते कमी पाहावयास मिळते. 10 वर्षांनंतर भंडारा आणि चंद्रपूर जिल्ह्यात मात्र या केंद्रीकरणात बदल होऊन उच्च ते मध्यम दर्शविते. नागपूर जिल्ह्यातील पीक केंद्रीकरणात कोणताही बदल दिसत नसला तरी गव्हाखालील क्षेत्र वाढलेले आहे आणि त्यामुळे निर्देशांकात वाढ झालेली दिसून येते. अभ्यासाच्या कालावधीत सिंचन सुविधांमध्ये झालेली वाढ हे यामागचे कारण असू शकते.

पूर्व विदर्भातील पीक केंद्रीकरणातील बदल





डाळी आणि शेंगा:

तूर आणि चना किंवा हरभरा ही मुख्य कडधान्ये अभ्यास क्षेत्रात लागवड केली जातात. या कडधान्यांसह मूग, उडीद, वाटाणा, वाल, मटकी, चवळी, लाखोरी इत्यादी इतर किरकोळ कडधान्ये लागवड केली जातात. 2010 ते 2020 या कालावधीत तुलनात्मक अभ्यास केला असता असे लक्षात येते की, भंडारा आणि गडचिरोली जिल्ह्यांमध्ये कडधान्ये आणि शेंगाच्या केंद्रीकरणात घट झालेली दिसून येते. चंद्रपूर जिल्ह्यात डाळींचे केंद्रीकरण वाढल्याचे दिसून येते. वर्धा, नागपूर आणि गोंदिया जिल्ह्यांमध्ये मात्र फारसा बदल दिसत नाही (आलेख क्र. 1,2)

कापूस:

महाराष्ट्रातील कोरडवाहू भागातील कापूस हे प्रमुख पीक आहे. पूर्व विदर्भातील अति-पश्चिम जिल्ह्याची सीमा अमरावती जिल्ह्याला (पश्चिम विदर्भ) आहे, जो कापूस पिकासाठी प्रसिद्ध आहे. मध्यम पाऊस आणि काळ्या सुपीक जमीनने वैशिष्ट्यीकृत वर्धा जिल्ह्यात 2010 आणि 2020 या दोन्ही वर्षांमध्ये कापूस पिकांची लक्षणीय वाढ दिसून येते. भंडारा आणि गोंदिया जिल्ह्यात मात्र कापसाची लागवड होत नाही. चंद्रपूर जिल्ह्यात, 2010 ते 2020 या कालावधीत कापूस पिकाच्या केंद्रीकरणामध्ये कमी ते मध्यम (0.92 ते 1.25) प्रमाणात बदल दिसून येतात. गडचिरोलीमध्ये कापसाचे प्रमाण कमी होते. परंतु 2010 ते 2020 या कालावधीत गडचिरोली आणि नागपूर जिल्ह्यात कापसाच्या क्षेत्रात उल्लेखनीय वाढ झाल्याचे दिसून आले आहे.

तेलबिया:

तेलबिया जसे की सोयाबीन, जवस बियाणे, भुईमूग, सूर्यफूल, तीळ, करडई इत्यादी अभ्यास क्षेत्रात घेतले जातात. यापैकी सोयाबीन आणि जवस बियाणे हे मुख्यतः तेलबिया या क्षेत्रात घेतल्या जातात भात लागवडीसाठी प्रसिद्ध असलेल्या गोंदिया आणि गडचिरोली जिल्ह्यांमध्ये मात्र तेलबियांची घनता कमी आहे. वर्धा आणि नागपूर जिल्ह्यातील शेतकऱ्यांचा कल सोयाबीन

लागवडीकडे आहे. हे एकमेव पीक आहे जे अभ्यास कालावधीत (2010-2020) पीक केंद्रीकरणाच्या पद्धतीमध्ये कोणताही बदल दर्शवत नाही. याचा अर्थ असा होतो की, गेल्या 10 वर्षांपासून सोयाबीन लागवडीचा शेतकऱ्यांचा निर्णय बदललेला नाही. सर्वसाधारणपणे सर्व सहा जिल्ह्यांमधून तेलबियांच्या क्षेत्रात किंचित घट नोंदवली गेली आहे

फळे आणि भाज्या:

अभ्यास क्षेत्रात लिंबूवर्गीय फळे प्रामुख्याने संत्री आणि मोसंबीसाठी प्रसिद्ध आहे. पूर्व विदर्भात केळी, पेरू यांसारखी इतर फळे देखील मोठ्या प्रमाणात घेतली जातात. या प्रदेशात पालेभाज्या आणि फळभाज्यांचे उत्पादनही होते. 2010 ते 2020 या अभ्यास कालावधीत गोंदिया आणि चंद्रपूर जिल्ह्यांमध्ये फळे आणि भाज्यांचे केंद्रीकरण हे कमी ते मध्यम प्रमाणात वाढलेले आहे. या पिकांची वाढती मागणी आणि वाहतूक सुविधांचा विकास ही त्यामागची प्रमुख कारणे आहेत. फळे आणि भाजीपाल्याचे सर्वाधिक केंद्रीकरण हे नागपूर जिल्ह्यात आहे. या नाशवंत पिकांसाठी लागणारी मोठी बाजारपेठ आणि शहरी लोकसंख्या नागपुरात आहे. दुसरीकडे, गडचिरोलीच्या आदिवासी आणि नक्षलग्रस्त जिल्ह्यात या पिकांचे केंद्रीकरण कमी पाहावयास मिळते. (आलेख क्र. 1, 2)

निष्कर्ष:

महाराष्ट्रातील पूर्व विदर्भातील पीक केंद्रीकरणाच्या तुलनात्मक अभ्यासानुसार, प्रदेशातील पिकांची घनता ही कृषी-हवामानाच्या क्षेत्रानुसार विभाजित आहे. पूर्वेकडील गोंदिया आणि गडचिरोली जिल्ह्यांमध्ये जास्त पावसामुळे येथे भात पिकाची घनता वाढलेली दिसून येते. वैनगंगा खोऱ्यातील सुपीक माती आणि पर्जन्यमान हे या प्रदेशातील भाताच्या उत्पादन वाढीसाठी महत्वपूर्ण घटक आहेत. भंडारा आणि चंद्रपूर जिल्ह्यांत गहू पिकाच्या घनतेत घट झाली आहे. चंद्रपूर जिल्ह्यात कडधान्ये आणि शेंगा यांची घनता वाढलेली दिसून येते. अभ्यासात असे दिसून आले की, तेलबियांच्या केंद्रीकरणामध्ये कोणतेही बदल दिसून येत नाहीत. सर्व तेलबियांमध्ये सोयाबीन हे विशेषत वर्धा आणि नागपूर जिल्ह्यांमधील प्रमुख नगदी पीक आहे. या नगदी पिकाकडे शेतकरी आकर्षित झाल्याचे दिसून येत आहे. वर्धा आणि नागपूर जिल्ह्यांमध्ये कापूस पिकाच्या केंद्रीकरणामागे काळी माती, मध्यम पाऊस आणि उच्च तापमान ही प्रमुख कारणे आहेत. चंद्रपूर आणि गडचिरोली येथील शेतकरीही कापूस लागवडीकडे वळत असल्याचे निदर्शनास आले आहे. मोठी शहरी बाजारपेठ, नाशवंत शेतमालाची ने-आण करण्यासाठी चांगली वाहतूक सुविधेमुळे या प्रदेशात फळे आणि भाजीपाल्याचे केंद्रीकरण पाहावयास मिळते. गडचिरोलीच्या जंगली आणि आदिवासी जिल्ह्यात फळे आणि भाज्यांचे प्रमाण कमी आहे, ज्याचे मुख्य कारण सिंचन सुविधेचा अभाव असल्यामुळे या प्रदेशातील पीक केंद्रीकरण कमी दिसून येतो. अभ्यास कालावधीत वाढलेली सिंचन सुविधा तसेच जलयुक्त शिवार योजनेच्या कामामुळे या प्रदेशातील पीक केंद्रीकरणात लक्षणीय बदल दिसून येतो. वैनगंगा नदीच्या पश्चिमेला कापूस हे मुख्य पीक आहे तर पूर्वेकडील भागात तांदूळ हे मुख्य पीक आहे. शेतीच्या आर्थिक वाढीसाठी नैसर्गिक वातावरण अत्यंत महत्त्वाचे आहे. शेतीसाठी पिके निवडण्याकडे अभ्यास क्षेत्रातील शेतकऱ्यांचा कल याला अनुसरून आहे. नगदी पिकांना मिळणारा बाजारभाव, शाश्वत पाणीपुरवठा, शेतीचे स्वयंपूर्ण स्वरूप, बाजारपेठेची उपलब्धता, शेतीमाल ग्राहकांपर्यंत पोहोचवण्यासाठी आवश्यक असलेल्या वाहतुकीच्या सुविधा, कापूस आणि भात पिकांच्या लागवडीतील मजुरांच्या समस्या, शेतकऱ्यांनी केलेल्या पिकांचे आवर्तन, जमिनीची सुपीकता टिकवून ठेवणे इत्यादी कारणे या प्रदेशातील पीक केंद्रीकरणातील बदल होण्यास कारणीभूत आहेत. अशा प्रकारे, या अभ्यासाने पूर्व विदर्भातील पीक केंद्रीकरणाचा चित्र विकसित केले आहे जो प्रदेशातील कृषी नियोजनासाठी फायदेशीर ठरू शकतो.

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सामाजिक कल्याण आणि शाश्वतता यात शिक्षणाचे योगदान.

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गोषवारा:

शिक्षण हे मनुष्यालाच नाही तर अखिल विश्वाला जागरूक, सक्षम, सुसंस्कृत बनविण्याचे महत्त्वाचे माध्यम आहे. शिक्षणातून समाज परिवर्तन होत असते. समाज परिवर्तन होत असताना सामाजिक हित किंवा विकास अपेक्षित असतो. हा विकास किंवा हित हे शाश्वत असावे किंवा शाश्वत व्हावे. यासाठी शिक्षणातील अनेक वैविध्यपूर्ण दृष्टिकोनांना प्रोत्साहन दिले गेले पाहिजे. यासाठी उच्च शिक्षणातील अनेक नवीन ट्रेंड उद्यास येत आहे त्यातून ही शाश्वता साधता येईल. शाश्वतता जपत असताना नीतीमूल्ये, कौशल्य यांना अबाधित ठेवणे गरजेचे आहे. त्यांना धक्का लागता कामा नये यासाठी विचारात शाश्वतेचे बीज रोवले गेले पाहिजे म्हणजे ते आचारात /आचरणात येईल. आचारात आले की मग प्रचार सहज शक्य होईल. गुणवत्ता पूर्ण शिक्षण हा शाश्वत विकासाचा पाया आहे.

समाज विकासात समाज हितात शिक्षणाचा जसा मोठा वाटा आहे तसाच शिक्षणात देखील समाजाचा खूप मोठा वाटा आहे. कारण विविध सामाजिक कृती या शिक्षणातून प्रभावित होत असतात. मानवी गरजाधिष्टित शिक्षण हे समाजाला उपयुक्त ठरत असते. 'शाश्वतता' ही सामाजिक प्रगतीची प्रक्रिया आहे जी आर्थिक, सामाजिक, पर्यावरणीय विचारांना / घटकांना एकत्रित करते. या सर्वांना जोडणारा दुवा म्हणजे दर्जेदार गुणवत्ता पूर्ण शिक्षण होय. शिक्षण ही सामाजिक कल्याणाची व शाश्वततेची गुरुकिल्ली आहे. शिक्षण हे लोकशाही मूल्ये, सामाजिक समता, आर्थिक कल्याण इत्यादींना प्रोत्साहन देते. म्हणजेच दर्जेदार शिक्षणात समाज हितोपयोगी असे मूल्यशिक्षण, लोकशाही शिक्षण, आरोग्य शिक्षण, पर्यावरण शिक्षण यांचा अभ्यास असणे नितांत गरजेचे आहे.

सूचक शब्द: – शाश्वतता, सामाजिक कल्याण, गुणवत्ता पूर्ण शिक्षण, पर्यावरण शिक्षण, लोकशाही शिक्षण, मूल्य शिक्षण, आरोग्य शिक्षण

प्रस्तावना-

मानवाच्या सर्वांगीण आयुष्याचा विचार करता शिक्षण हे असे प्रभावी आणि धारदार शस्त्र आहे की जे विविध अडसरांना कापून मानवाला समाजात यशाच्या शिखरावर पोहोचविते. या समाजरुपी संसारात मानवाला त्याची स्वतःचे उन्नयन व्हावे असे वाटत असते. म्हणजे समाजाचा एक अभिन्न घटक म्हणून व्यक्ती समाजापासून विलग होऊ शकत नाही.

अर्थात समाजात रहावयाचे म्हणून समाजाची काही नीतिमत्ता, परंपरा कायदे इत्यादीचे पालन करण्यास समर्थ बनवते ते केवळ आणि केवळ शिक्षणामुळेच शक्य होते. त्यामुळे ते शिक्षण देखील तितकेच प्रभावी, दर्जेदार व गुणवत्तापूर्ण असणे गरजेचे आहे. सामाजिक कल्याणात अनेक घटकांचा समावेश होतो. जसे की आर्थिक कल्याण, आरोग्य, लैंगिक समानता, रोजगार, सामाजिक मूल्य, सुरक्षितता इत्यादी घटकांचा समावेश होतो.

देशाच्या आर्थिक कल्याणाचा विचार केल्यास ज्या काही पायाभूत सुविधा आहेत त्यांचा विचार करणे हितावह ठरेल. पायाभूत सुविधांचा खर्च अर्थव्यवस्थेला चालना देत असतो. यात घरे आणि कंपन्यांसाठी आवश्यक असलेल्या सेवा आणि सुविधांचा समावेश होतो. या सुविधांचा विकास

हा अर्थव्यवस्थेचा पाया आहे आणि शिक्षण हा अर्थव्यवस्थेचा कणा आहे.

उच्च शिक्षण आणि शाश्वतता आणि सामजिक कल्याण –

मानवी संसाधनांचा विकास करण्यासाठी उच्च शिक्षण संस्थांनी अधिक सक्रियतेने पुढे येणे गरजेचे आहे. यात सर्व वर्गातील महिला आणि पुरुष यांना समान संधीचे आणि परवडणारे व्यावसायिक, तांत्रिक शिक्षण देणे आवश्यक आहे. म्हणजेच विद्यापीठात सर्वांना समान प्रवेश असावा. म्हणजेच 'लिंगसमानता' या मूल्यातून समाजाचे कल्याण साधता येईल. व्यावसायिक शिक्षण घेत असताना तंत्रज्ञानाचे अधिकाधिक व परिपूर्ण ज्ञान घ्यावे. जेणेकरून या ज्ञान ग्रहण केलेल्या व्यक्ती समाजाच्या शाश्वत विकासास हातभार लावतील.

कारण या ज्ञानी व्यक्ती भविष्यातील उत्पादने सुधारण्यासाठी आणि आर्थिक वाढ साध्य करण्यासाठी नक्कीच उपयोगी ठरतील. बेरोजगारी ही आजची अतिशय ज्वलंत आणि गंभीर समस्या आहे की जी मनुष्याला आतून कमीपणाची भावना वाटून एखाद्या वाळवी सारखी पोखरत जाते. यावर उपाय म्हणून शासनाने वेळोवेळी महारोजगार मेळाव्यांचे आयोजन करून नवीन तरुणाईला रोजगाराच्या संधी उपलब्ध करून द्याव्यात. हा रोजगार देत असताना त्यात नवनवीन सुविधा असाव्यात ज्यामुळे ती व्यक्ती स्वतःचा आर्थिक दर्जा सुधारून कुटुंबातील मुला बाळांना उच्चशिक्षित करू शकते. उच्च शिक्षणाला अधिक वाव मिळावा म्हणून विविध शिष्यवृत्यांची सोय शासनाने करणे अपेक्षित आहे. उच्च शिक्षणामुळे विचारांमधील देवाण-घेवाण तर वाढतेच परंतु नवीन येणाऱ्या समस्यांचे निराकरण व्यक्ती करू शकते व भविष्यातील तिच्या भूमिका लक्षात घेऊन व्यक्ती त्या निभावण्याचा प्रामाणिक प्रयत्न करते.

व्यक्तीची संशोधक वृत्ती जोपासण्यास मदत होते. नवनिर्मिती क्षमता वाढते. कोविड-19 या महाभयानक महामारीने समस्त जगावर भीषण संकट ओढवले या संकटाने मानवी जीवन विस्कळीत झाले. संपूर्ण अर्थव्यवस्था कोलमडून पडलेल्या देशांनी आता खरोखरच उच्च शिक्षणाचे स्वरूप बदलले पाहिजे. शिक्षणातून केवळ शिक्षणच नव्हे तर अध्यापन, संशोधन, सामाजिक हित, मूल्ये, नीतिमत्ता, सुरक्षितता, शांतता, समानता, सुदृढता, पारदर्शकता इत्यादी गोष्टी साध्य करणे अपेक्षित आहे. यासाठी आंतरराष्ट्रीयता हे तत्व दोन विद्यापीठांनी आपसात आत्मसात केली जावी दोन विद्यापीठांच्या परस्पर सामंजस्यातून समाजपयोगी मोहीम राबवून प्रत्यक्षात त्यांचा अंमल होणे गरजेचे आहे. म्हणजे उच्च शिक्षण हे शैक्षणिक विषयांपुरतेच मर्यादित नाही तर त्यात नवीन आणि भिन्न लोकांशी संवाद, विचारांचे आदान प्रदान, एखाद्या विशिष्ट क्षेत्राशी एकीकरण करणे आणि त्यातून नवीन संशोधनाची निर्मिती करणे हे समाविष्ट आहे. यातून जागतिक समस्यांचे निवारण / निराकरण करण्याचे आव्हान हे संशोधकांना दिले जावे. यात सार्वजनिक एजन्सी, उद्योग संस्था यांचा उच्च शिक्षण संस्थांशी सहयोग असायला हवा. सार्वजनिक किंवा खाजगी भागीदारी सारख्या कंपन्या किंवा संशोधन केंद्रे इतर प्रकल्पावर सहकार्य करू शकतात. थोडक्यात उच्च शिक्षण संस्था ह्या शाश्वततेचा आणि सामाजिक हिताचा आधारस्तंभ आहे.

उद्दीष्टे-

1) सामाजिक कल्याणात शिक्षणाचा दृष्टिकोन अभ्यासणे.
2) शाश्वतता आणि समाज हितात उच्च शिक्षणाची भूमिका अभ्यासणे.
3) सामाजिक कल्याण आणि शाश्वततेबाबत येणाऱ्या आव्हानांचा अभ्यास करणे.
4) सामाजिक शाश्वतता प्रस्थापित करण्यासाठी शिक्षणाचे उत्कृष्ट व्यवस्थापन करणे.

माहिती आणि विश्लेषण-

पृथ्वी या ग्रहावर आपले वास्तव्य आहे जिथे मानवाने त्याच्या विविध क्रियाकलापानी पृथ्वीच्या परिसंस्थेत बदल घडवून आणले आहे. त्यामुळे मानवी जीवनाच्या अस्तित्वात धोका निर्माण झाला आहे. एकीकडे अतिउच्च प्रगती व दुसरीकडे आपत्ती अशी स्थिती निर्माण झाली आहे. मग या आपत्तीत नैसर्गिक आपत्ती असो किंवा आर्थिक आपत्ती असो त्यात सामान्य मनुष्य होरपळून निघाला आहे. ग्लोबल वॉर्मिंग सारख्या आपत्तीला एक आव्हान म्हणून स्वीकारून मानवाने संघटित होऊन प्रयत्नशील असणे गरजेचे आहे. युनेस्कोच्या ईएसडी फॉर 2018 या प्रोग्राम चे उद्दिष्ट वैयक्तिक व सामाजिक परिवर्तन घडवून आणणे हे आहे त्यासाठी अभ्यासक्रम बदलाची गरज आहे.

युनेस्को त्यासाठी नवनवीन धोरणासंबंधी मार्गदर्शन पुरविते. प्रोत्साहन देते. शाश्वत विकासाच्या सामाजिक आर्थिक पर्यावरणीय आणि सांस्कृतिक अंगांना जोडण्यात शिक्षण महत्त्वाची भूमिका बजावते. समाज बदलण्यासाठी आणि ग्रहाची काळजी घेण्यासाठी कृतीयुक्त

शिक्षणाची वेळ आली आहे. विकास हा महत्त्वाचा तर आहेच पण ते करीत असताना मूल्यांना, सुरक्षिततेला, स्थिरतेला, समानतेला धोका पोहोचता कामा नये. 'सामाजिक समावेशकता 'हे तत्व अंगीकारून संतुलित आणि समृद्ध भविष्य घडविण्यात शिक्षकाचा खूप मोठा वाटा आहे. जैवविविधतेचे रक्षण करण्याचे शिक्षण हे शिक्षकाने विद्यार्थ्यांना देणे अपेक्षित आहे. केवळ स्वतःच्या स्वार्थासाठी जैविक घटकांना धोका पोहोचेल किंवा हानी होईल असे कोणतेही कृत्य करू नये हे शिक्षकाने विद्यार्थ्यांना दैनंदिन अनुभूतीतून आत्मसात करण्यास सांगितले पाहिजे.या अनुभूतीतून नवीन सदैव शोधक राहण्याची वृत्ती विद्यार्थ्यांच्या मनात निर्माण केली पाहिजे.

दैनंदिन गरजांमधून नवीन ज्ञान अर्जित करण्याची तृष्णा जागृत झाली पाहिजे. उपजत गुण, सृजन शीलतेचे बिजारोपण, नवीन ज्ञानाचा प्रसार करण्याचे सामर्थ्य शिक्षणाच्या माध्यमातून व्यक्तीच्या ठायी निर्माण करता आले पाहिजे. त्यासाठी वर्ग अध्यापनात केवळ एकतर्फी अध्यापन न होता त्यात प्रकल्प, प्रयोग पद्धती, स्वयं अध्ययन पद्धती यासारख्या कृती प्रवणतेवर भर दिला जावा. या सोबतच संवाद, चर्चा, प्रश्नोत्तरे इत्यादींचा सुद्धा वापर व्हावा. संवाद चर्चा या माध्यमातून विचार वृद्धिंगत होतील आणि त्यातून स्वयंशोधक तयार होतील. देशातील वैज्ञानिक दृष्टिकोनाचे मूल्ये यासोबतच सकारात्मकतेचे बिजारोपण त्यांच्यात यायला हवे. म्हणजे वैज्ञानिक दृष्टिकोनाचे मूल्य जपणूक करीत असताना देशाच्या आणि जगाच्या हितासाठी विद्यार्थी प्रयत्नशील आणि सक्रिय असतील.

सामाजिक स्थिरतेसाठी संस्कृतीची वृद्धी आणि शाश्वतता-

ज्ञान हा संस्कृतीचा पाया आहे. ज्ञान असे साधन आहे की जिच्या साहाय्याने व्यक्ती तिच्या सभोवतालच्या वातावरणाशी समायोजन करीत असते. ज्ञान हे अनुभूतीतून वृद्धिंगत होत असते. यात सर्व प्रकारचे ज्ञान हे सामाजिक परिस्थितीनुसार बदलणारी एक पिढी दुसऱ्या पिढीकडे संक्रमित करीत असते. मग पुढची पिढी त्यात नवीन ज्ञानाची आणि अनुभूतींची भर घालून त्या पुढच्या पिढीकडे सोपवीत असते. म्हणजे प्रत्येक संस्कृती ज्ञानाची वृद्धी होत असते. म्हणजे संस्कृतीत शिक्षणाचे महत्त्वाचे योगदान आहे.

संस्कृतीचा आणखी एक महत्त्वाचा घटक म्हणजे मूल्ये. मूल्ये व्यक्तीला समृद्ध आणि परिपूर्ण बनवितात. मूल्ये हा व्यक्तीच्या नैतिकतेचा भाग आहे. मूल्याला श्रद्धेची जोड असेल तर मूल्यांचे अस्तित्व टिकते. मूल्ये ही समाजातील सदस्यांनी निश्चित केलेले काही मापदंड असतात. मूल्यांनी संस्कृती टिकते. संस्कृती ही व्यक्तीच्या विचारातून आणि वर्तनातून अनुभवता येते. म्हणजेच संस्कृतीचे अस्तित्व हे समाजाच्या अस्तित्वावर अवलंबून असते. समाजातील आदर्श, मूल्ये, नीती, रुढी यांची एकत्रित बांधणी ही संस्कृतीला हातभार लावत असतात. म्हणजेच ही संस्कृती शाश्वत टिकविण्यासाठी समाजाचे योगदान महत्त्वाचे आहे. यात भाषा या घटकाचा देखील महत्त्वाचा वाटा आहे. आधुनिक तंत्रज्ञान आणि जागतिकीकरणाचा संस्कृतीवर सतत परिणाम होताना दिसतो.

आधुनिक शिक्षणामुळे ज्ञानाच्या कक्षा वृंदावल्यामुळे व्यक्तीचा दृष्टिकोन अधिकाधिक व्यापक होतो. त्यामुळे सामाजिक एकात्मकता साधली जाते. या एकात्मतेतून बऱ्याचदा सामाजिक संपर्काचे जाळे आर्थिक विकासासाठी देखील उपयोगी पडतात. एकात्मता ही शाश्वत टिकण्यासाठी शिक्षण महत्वाचे अंग आहे. एकात्मतेतून सामाजिक स्थिरता प्रस्थापित होते.

निष्कर्ष -

शिक्षण हा सामाजिक स्थिरतेचा आधारस्तंभ आहे. व्यक्ती, जनसमुदाय, समाज घडवितांना शिक्षणाची जबाबदारी खूप मोठी आहे. सामाजिक परिस्थितीनुसार ज्ञानाचा दृष्टिकोन बदलत जातो. परिणामी शिक्षण हे बहुआयामी होत जाते. जसे covid-19 या महाभयंकर महामारीनंतर शिक्षणाच्या स्वरूपात बदल झाला. ऑनलाइन शिक्षण आल्याने तंत्रविज्ञान अधिकाधिक विकसित झाले. ज्ञानाच्या कक्षा रुंदावल्या. ज्ञानाची तृष्णा आणि अपेक्षा यांच्यात वाढ झाली. जागतिकीकरणामुळे देखील ज्ञानाच्या कक्षा रुंदावल्या. हे सर्व घडत असताना सामाजिक हिताचा विचार करणे अनिवार्य आहे. आणि ते चिरकाल व स्थायी स्वरूपात टिकवण्यासाठी शिक्षण हा एकमेव पर्याय आहे.

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