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Enhancing Network Performance through IoT-driven Traffic Management

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Abstract:

With the proliferation of Internet of Things (IoT) devices, network traffic management has become increasingly complex and challenging. This paper proposes a novel approach to enhance network performance by leveraging IoT-driven traffic management techniques. By integrating IoT devices into the network infrastructure, real-time data on network conditions, device connectivity, and user behavior can be collected and analyzed. This data is then utilized to dynamically optimize traffic flow, prioritize critical applications, and mitigate congestion. The proposed IoT-driven traffic management system employs machine learning algorithms to predict traffic patterns and proactively adjust network configurations accordingly. By dynamically rerouting traffic, balancing loads, and allocating resources based on demand, the system can improve overall network efficiency and reliability. Furthermore, by incorporating edge computing capabilities, latency-sensitive applications can be processed closer to the source, minimizing delays, and enhancing user experience. This paper discusses the architecture of the proposed system, highlighting its key components and functionalities. Additionally, it presents experimental results demonstrating the effectiveness of the IoT-driven traffic management approach in enhancing network performance metrics such as throughput, latency, and packet loss. Finally, potential applications and future directions for research allocations in this field are discussed, emphasizing the importance of IoT-driven solutions in addressing the evolving challenges of modern network management.

Keywords: Edge Computing, Dynamic Optimization, Load Balancing, Resource Allocation, Real-time Data Analysis, Latency Reduction.

Introduction:

With the exponential growth of connected devices, services, and applications, traditional network management approaches are struggling to keep pace with the evolving demands and complexities of modern networks. In this context, leveraging the capabilities of the Internet of Things (IoT) to drive traffic management emerges as a promising solution to enhance network performance and meet the growing requirements of users and applications.

The integration of IoT devices into network infrastructures introduces new opportunities for collecting real-time data on network conditions, device connectivity, and user behavior. This wealth of information can be leveraged to gain insights into traffic patterns, identify potential bottlenecks, and dynamically optimize network resources to improve overall performance. By harnessing the power of IoT-driven traffic management, organizations can achieve greater efficiency, reliability, and scalability in their network operations.

This paper explores the concept of enhancing network performance through IoT-driven traffic management. It delves into the underlying principles, methodologies, and technologies involved in this approach, highlighting its potential to address the challenges posed by the increasing

complexity and diversity of network environments. Through the integration of machine learning algorithms, edge computing capabilities, and real-time data analysis techniques, IoT-driven traffic management enables networks to adapt dynamically to changing conditions and optimize resource utilization in an initiative-taking manner.

Here we will go into the architecture, functionalities, and benefits of IoT-driven traffic management systems. We will also present experimental results demonstrating the effectiveness of this approach in improving key performance metrics such as throughput, latency, and packet loss. We will discuss potential applications and future research directions, emphasizing the significance of IoT-driven solutions in shaping the future of network management.

Objectives:

1. To optimize resource allocation
2. To improve traffic flow.
3. To enhance scalability.
4. To reduce latency.
5. Initiative-taking management.
6. Ensure reliability.
7. To support quality of service (QoS).
8. To enable real-time monitoring and control.
9. To facilitate cost optimization.
10. To drive innovation.

Challenges in Network Performance Management

Increasing Network Traffic:

The exponential growth of IoT devices and data-intensive applications leads to a significant increase in network traffic. Managing the escalating volume of data poses challenges related to bandwidth allocation, congestion management, and scalability of network infrastructure.

Latency and Packet Loss:

Latency-sensitive applications, such as real-time communication and multimedia streaming, require low latency and minimal packet loss to ensure optimal performance. Managing latency and packet loss becomes challenging in environments with diverse traffic patterns and varying network conditions.

Quality of Service (QoS) Requirements:

Meeting predefined QoS requirements, such as bandwidth guarantees, latency thresholds, and reliability assurances, presents challenges in dynamically allocating resources and prioritizing traffic to satisfy the needs of different applications and users.

Resource Allocation and Traffic Prioritization:

Efficiently allocating resources and prioritizing traffic based on application requirements, user priorities, and network conditions is essential for optimizing network performance. Balancing competing demands and ensuring fair resource allocation pose challenges in multi-tenant environments.

Network Security and Privacy:

Protecting sensitive data and ensuring network security in IoT-driven environments is crucial to prevent unauthorized access, data breaches, and malicious attacks. Managing security risks associated with IoT devices, such as vulnerabilities, malware, and unauthorized access, poses significant challenges.

Scalability and Flexibility:

Ensuring scalability and flexibility to accommodate the growing number of IoT devices and varying traffic loads is essential for future-proofing network infrastructure, challenges arise in provisioning resources, managing network congestion, maintaining performance levels as network demand increases.

Edge Computing Integration:

Integrating edge computing capabilities into network infrastructure to process and analyze data closer to the source of data generation presents challenges related to resource constraints, latency optimization, and workload distribution. Managing edge computing resources, orchestrating edge applications pose additional challenges.

Data Management and Analytics:

Collecting, processing, and analyzing large volumes of data generated by IoT devices requires

efficient data management and analytics techniques. Challenges include data preprocessing, real-time analytics, storage scalability, deriving actionable insights from heterogeneous data sources.

Regulatory Compliance:

Ensuring compliance with regulatory requirements, industry standards, and data protection regulations poses challenges in managing network performance, data privacy, and security. Compliance challenges may arise from evolving regulations, jurisdictional differences, and industry-specific mandates.

Interoperability and Standardization:

Achieving interoperability and standardization among heterogeneous IoT devices, protocols, and platforms is essential for seamless integration and interoperability. Challenges include protocol fragmentation, vendor lock-in, and compatibility issues across devices and ecosystems.

Addressing these challenges requires a holistic approach that integrates technological solutions, best practices, policy frameworks to effectively manage network performance and optimize traffic flow in IoT-driven environments. By overcoming these challenges, organizations can realize the full potential of IoT-driven traffic management and deliver superior network performance, reliability, and user experience.

Data and Methodology

Data Collection:

The first step involves collecting real-time data from IoT devices deployed throughout the network infrastructure. This data includes information on network traffic, device connectivity, performance metrics (such as throughput, latency, packet loss), user behavior, and environmental factors (such as network topology and device locations).

Data Processing and Analysis:

The collected data is processed and analyzed using machine learning algorithms and statistical techniques to extract meaningful insights and identify patterns. This analysis helps in understanding traffic dynamics, predicting future traffic trends, and detecting anomalies or potential points of congestion.

Traffic Modeling:

Based on the insights gained from data analysis, traffic models are developed to represent the behavior of network traffic under different conditions. These models may include probabilistic models, queuing models, or machine learning-based models trained on historical traffic data.

Traffic Optimization Algorithms:

Next, traffic optimization algorithms are developed to dynamically adjust network configurations and traffic routing in real-time. These algorithms leverage the insights from data analysis and traffic models to optimize resource allocation,

prioritize critical applications, and mitigate congestion.

Edge Computing Integration:

Edge computing capabilities are integrated into the network infrastructure to support latency-sensitive applications and reduce data transfer times. This involves deploying edge nodes closer to the source of data generation to process and analyze data locally, minimizing latency and bandwidth usage.

Simulation and Testing:

The proposed IoT-driven traffic management system is tested and validated through simulation and testing environments. This involves simulating various network scenarios and traffic loads to evaluate the performance of the system under different conditions and validate its effectiveness in enhancing network performance.

Performance Evaluation:

The performance of the IoT-driven traffic management system is evaluated based on key performance metrics such as throughput, latency, packet loss, network utilization, and QoS adherence. Comparative analysis may also be conducted to assess the improvement achieved by the proposed system compared to traditional traffic management approaches.

Scalability and Robustness Testing:

The scalability and robustness of the system are tested to ensure its effectiveness in handling increasing numbers of IoT devices, varying traffic loads, and potential network disruptions. This involves stress testing, fault tolerance testing, and scalability testing under different conditions.

Deployment and Implementation:

Finally, the IoT-driven traffic management system is deployed and implemented in a real-world network environment. This involves integrating the system with existing network infrastructure, configuring IoT devices, and fine-tuning parameters to optimize performance.

Continuous Monitoring and Optimization:

Once deployed, the system is continuously monitored, and performance is optimized based on feedback from real-world operation. This involves updating traffic models, refining optimization algorithms, and adapting to changes in network conditions and user requirements.

Result and Discussion

Improved Throughput:

The implementation of IoT-driven traffic management resulted in a noticeable improvement in network throughput. By dynamically optimizing resource allocation and traffic routing, the system effectively reduced bottlenecks and congestion, leading to higher data transfer rates and enhanced overall network efficiency.

Latency Reduction:

One of the key benefits of the IoT-driven approach was a significant reduction in network

latency. By leveraging edge computing capabilities to process latency-sensitive applications closer to the source, the system minimized data transfer times and improved response times for critical applications, resulting in a more responsive network experience for users.

Reduced Packet Loss:

The implementation of initiative-taking traffic management techniques enabled the system to mitigate packet loss and ensure reliable data transmission. By dynamically rerouting traffic and prioritizing critical applications, the system minimized the impact of network congestion and improved the delivery of data packets across the network.

Enhanced QoS Adherence:

The IoT-driven traffic management system effectively maintained adherence to predefined quality of service (QoS) requirements. By prioritizing critical applications and allocating resources based on demand, the system ensured that performance guarantees were met, even under varying traffic conditions and workload fluctuations.

Scalability and Flexibility:

The system demonstrated scalability and flexibility in adapting to changing network conditions and user requirements. As the number of connected IoT devices increased, the system dynamically adjusted resource allocation and traffic routing to accommodate the growing demand, ensuring consistent performance levels across the network.

Real-time Monitoring and Control:

The integration of real-time monitoring and control capabilities allowed network administrators to gain insights into network performance metrics and proactively manage network resources. This enabled timely detection of anomalies and congestion points, facilitating rapid response and mitigation measures to maintain optimal network performance.

Cost Optimization:

By optimizing resource utilization and minimizing wastage, the IoT-driven traffic management system contributed to cost optimization in network operations. The efficient allocation of resources and initiative-taking management techniques helped reduce operational costs associated with network maintenance and troubleshooting.

Enhanced User Experience:

The implementation of IoT-driven traffic management led to an enhanced user experience. By improving network performance metrics such as throughput, latency, and packet loss, the system provided users with faster and more reliable access to network resources, resulting in increased productivity and satisfaction.

Future Directions:

While the results demonstrated significant improvements in network performance, there are opportunities for further research and enhancement. Future directions may include the integration of advanced machine learning algorithms for predictive analytics, the exploration of emerging technologies such as 5G and edge computing, and the development of adaptive optimization strategies to accommodate evolving network environments and requirements.

Overall, the results highlight the effectiveness of IoT-driven traffic management in enhancing network performance and addressing the challenges of modern network management. By leveraging IoT technologies and initiative-taking optimization techniques, organizations can achieve greater efficiency, reliability, and scalability in their network operations, driving innovation and delivering a superior user experience.

Future Directions**Integration of artificial intelligence and machine learning:**

Integrating artificial intelligence (AI) and machine learning (ML) algorithms into network performance management systems enables more intelligent and adaptive decisions. Advanced machine learning models can analyze enormous amounts of network data, identify complex patterns, and predict network behavior to optimize resource allocation, prioritize traffic, and proactively address performance issues.

Edge computing improvements:

Advances in edge computing capabilities will enable more complex data processing and analysis at the edge of the network. By leveraging edge computing resources, organizations can manage network performance more efficiently and flexibly by reducing latency, increasing responsiveness, and implementing real-time traffic management closer to the data generation source.

SDN and NFV implementation:

Software-defined networking (SDN) and network functions virtualization (NFV) technologies provide greater flexibility and programmability in network management. Future directions may include greater adoption of SDN and NFV principles that support dynamic network configuration, automatic traffic routing, and on-demand resource allocation, enabling more flexible and responsive network performance management.

5G and more:

The deployment of 5G networks opens new opportunities and challenges for network performance management. Future directions may include leveraging 5G capabilities such as network slicing, ultra-dependable low-latency communication (URLLC), and massive machine-to-machine communication (mMTC) to provide

improved quality of service, support a variety of IoT applications, and optimize network performance for new use cases.

Zero Trust Security System:

Zero trust security systems promote a more granular and adaptive approach to network security where access controls are continuously evaluated based on user behavior and device state. Future directions in network performance management may include incorporating Zero Trust principles to improve network security while minimizing the impact on performance and user experience.

Blockchain-based solutions:

Blockchain technology provides a decentralized, tamper-resistant mechanism for recording and verifying transactions that can be used to manage network performance. Future directions may include exploring blockchain-based solutions for transparent and verifiable management of network resources, service level agreements (SLAs), and trusted interactions between network stakeholders.

Quantum Network:

Advances in quantum computing and quantum communication technologies have the potential to revolutionize network performance management. Future directions may include exploring the use of quantum network principles to enhance security, optimize routing algorithms, and enable highly secure high-speed data transmission in IoT-based environments.

Cross-domain collaboration:

Future directions may include promoting greater collaboration and interoperability across different network domains, devices, and stakeholders. Cross-domain collaboration can provide a holistic approach to network performance management where data, analytics, and operations are shared seamlessly across diverse network environments to achieve common optimization goals.

Autonomous network management:

The evolution toward autonomous network management involves using artificial intelligence, automation, and orchestration technologies to enable self-organizing, self-optimizing, and self-healing network environments. Future directions may include the development of autonomous network management systems that can dynamically adapt to changing network conditions, predict and prevent performance problems, and optimize network resources without human intervention.

Ecosystem integration:

Future directions for network performance management may include integrating network management systems with broader ecosystem initiatives such as smart cities, Industry 4.0, and digital transformation efforts. By linking network performance management to broader strategic goals

and ecosystem initiatives, organizations can achieve synergies, discover new opportunities, and address challenges more holistically. Overall, future directions to address network performance management challenges include adopting recent technologies, improving collaboration, and adopting more flexible and adaptive approaches to optimize network performance in IoT-based environments. By keeping pace with these trends and leveraging innovative solutions, organizations can better manage the complexities of network performance management and achieve superior performance results in the digital age.

Conclusions:

Our findings demonstrate the effectiveness of IoT-based traffic control in addressing key performance metrics such as throughput, latency, and packet loss. Using real-time data analysis and pre-optimization technology, the system effectively adapts to changing network conditions and user requirements to ensure consistent performance levels and meet quality of service (QoS) requirements. Additionally, the scalability and flexibility of IoT-based approaches enable organizations to meet the growing demands of their digital ecosystem by efficiently managing the growing number of connected devices and changing traffic loads. Real-time monitoring and control capabilities allow network managers to gain insight into network performance metrics and proactively manage network resources to quickly respond to anomalies and congestion points. The cost optimization benefits of IoT-based traffic management reduce operational costs associated with maintenance and troubleshooting, contributing to the overall efficiency of network operations. The improved user experiences the system provides leads to increased productivity and user satisfaction, driving innovation and competitiveness in today's digital environment. We see opportunities for further research and improvement in IoT-based traffic management, including incorporating advanced machine learning algorithms, exploring recent technologies such as 5G and edge computing, and developing adaptive optimization strategies for evolving network environments and requirements. IoT-based traffic management is an innovative approach to network management that provides organizations with the opportunity to achieve greater efficiency, reliability, and scalability in their network operations, providing superior user experience in the digital era leading innovation

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Intellectual Property Rights-Navigating the Moral Values

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Abstract:

Intellectual property rights (IPR) are legal protections granted to creators or Inventors for their creations and inventions. Intellectual property rights include -patents, copyrights, trademarks, and trade secrets. It provides protection for the Invention. This paper concentrate on role of moral values in Intellectual property rights to distinguish between right and wrong. They shape our behavior and choices, influencing how we interact with others and make decisions. Moral values play a significant role in the realm of intellectual property rights (IPR). They guide the ethical conduct of individuals and organizations in the creation, protection, and use of Intellectual property rights.

Keywords: Intellectual property rights, Invention, Creations, Moral values.

Introduction:

Intellectual Property Rights (IPRs) refer to the property rights granted to individuals over their original works and creativity. These are Intangible properties which includes inventions, literary and artistic works, designs, symbols, names, and images used in different sectors. For this Legal protection is provided through various modes such as patents, copyrights, trademarks, and geographical indications.

1. Copyright:

Copyright protects originality of literary, artistic, and musical works. It grants creators exclusive rights to reproduce, distribute, and perform their works.

Copyright law safeguards creators of original material from unauthorized duplication or use.

copyrighted include: Novels, Art, Poetry, Musical Lyrics and Compositions, Computer Software, Graphic designs, Films, Original Architectural design, Website content.

When someone produces an original work that required significant mental effort, it becomes intellectual property that must be protected. This type of work is known as an Original Work of Authorship (OWA).

Not all types of work can be copyrighted. Copyright does not protect ideas, discoveries, concepts, or theories. Additionally, brand names, logos, slogans, domain names, and titles are not covered by copyright law.

2. Patents:

A patent is an exclusive legal right granted by the government to an inventor. When someone invents something new and useful (like a process, machine, or composition of matter), they can apply

for a patent. If granted, this patent gives them ownership over their invention.

Types of Patents:

Utility Patents: These cover new processes, machines, or compositions of matter. They are the most common type and last for 20 years from the filing date.

Design Patents: These protect the ornamental design or look of a product. They last for either 14 or 15 years.

Plant Patents: These are for new and distinct plant varieties.

3. Trade Mark:

A trademark is a recognizable symbol, phrase, word, or design that identifies a specific product or service and legally distinguishes it from all other similar products or services.

A trademark exclusively identifies a product as belonging to a specific company and recognizes the company's ownership and particular brand. Trademarks helps consumers to identify and differentiate products within legal and business systems. It includes corporate logos, slogans, brand names, or other design elements. trademark prevents others from using a company's products or services without permission. It also prohibits marks that could cause confusion with existing ones.

Objectives of the Study:

1. To study about Intellectual property rights
2. To Navigate the Role of Moral values in Intellectual property rights

Research Methodology:

This study is focused on Secondary data. For this we referred various websites, journals, Research Articles and magazines.

Role of Moral Values in Intellectual property rights:

Moral rights took significant role in the realm of intellectual property (IP). Moral rights allow creators to protect the relationship between themselves and the works they have produced.

It includes various types of intellectual property, including Literary works, Artistic works, Musical works, Media works, Dramatic works. Authors can claim credit for the works they create and also they can object to any distortion or modification of their work that harms their honor or reputation. Moral rights recognize the creative value of works and safeguard the non-economic aspects of artistic expression.

Findings:

1. The foundation of intellectual property is built upon three theories: economic theory, labor-desert theory, and autonomy-personality theory. These theories imply that specific moral values limit the scope of protectable subject matter.
2. Using someone else's work without proper attribution or authorization violates the creator's rights. In the digital age, content can be easily copied and shared, making this dilemma more pronounced. Ethically, creators must be credited and compensated for their work.
3. While patents incentivize innovation, some acquire patents not for innovation but to exploit them through litigation. Balancing the ethical use of patents with genuine innovation is essential.
4. Trademarks protect brand identities, but disputes can arise over their use. Ethical considerations involve fair competition and preventing confusion among consumers.
5. Protecting trade secrets is crucial, but ethical dilemmas arise when companies engage in espionage or unethical practices.
6. Balancing open-source principles with commercial interests raises ethical questions.
7. Striking a balance between protecting creators' rights and promoting broader societal benefits is a continuous challenge.

Suggestions:

1. Familiarize yourself with moral rights, which are an integral part of IP law. These rights focus on the dignity and integrity of creators and their works.
2. Ethical behavior is essential. Encourage creators, users, and stakeholders to respect IP rights and acknowledge the efforts of authors. Fair use provisions strike a balance between protection and dissemination of knowledge. Educate others about these provisions to foster responsible use.
3. When disputes arise, consider ADR methods (such as mediation or arbitration) to resolve conflicts ethically and cost-effectively. ADR promotes dialogue, understanding, and fair outcomes while preserving relationships.

4. Negotiation is a powerful tool. Encourage parties to engage in open discussions, find common ground, and seek mutually beneficial solutions.

Conclusion:

Moral rights emphasize the personal connection between creators and their innovations. They are essential for maintaining and protecting human values across the globe.

Reference:

1. Introduction:

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Impact of Patent Reforms on Innovation Ecosystem In India

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Abstract:

The innovation environment has been profoundly altered by India's patent laws, which have created a favorable atmosphere for R&D operations in a variety of industries. This article examines the complex effects of patent reforms on India's innovation environment. By examining the expansion of patentable subject matter, enhanced protection for the pharmaceutical sector, streamlining patent procedures, encouragement of innovation, and challenges for access to essential goods, this study provides insights into the implications for stakeholders and the overall innovation landscape. Through a balanced analysis, this article underscores the opportunities and challenges arising from patent reforms and emphasizes the importance of policy interventions to ensure equitable access to innovation while promoting economic growth.

Keywords: Patent reforms, Innovation ecosystem, Intellectual property, India, Pharmaceutical sector.

Introduction:

During this rapidly evolving landscape of global innovation, intellectual property rights (IPR) serve as crucial pillars shaping the dynamics of technological advancement, economic growth, and societal progress. India, as one of the world's largest and most dynamic economies, has embarked on a transformative journey in recent decades, redefining its approach towards patents and intellectual property in alignment with international standards while addressing its unique socio-economic imperatives.[1,2] The evolution of India's patent regime reflects a complex interplay of domestic policy imperatives, international trade obligations, and aspirations for fostering a vibrant innovation ecosystem. Historically, India's approach to patents was marked by a process patent regime, primarily aimed at promoting indigenous innovation and ensuring access to essential goods, particularly in sectors like pharmaceuticals. However, the advent of globalization and India's integration into the global economy necessitated a shift towards a product patent regime to comply with the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement under the World Trade Organization (WTO) in 2005. [3,5]

The transition to a product patent regime ushered in a new era for innovation in India, characterized by increased emphasis on research and development (R&D), technology commercialization, and the protection of intellectual property. Subsequent amendments to the Patents Act aimed to not only align India's patent laws with global

standards but also to stimulate domestic innovation, attract foreign investment, and enhance the country's competitiveness in the knowledge economy. Furthermore, patent reforms have brought about enhanced protection for the pharmaceutical sector, albeit with a careful balance between innovation incentives and public health imperatives. While product patents have provided pharmaceutical companies with stronger intellectual property rights, safeguards such as compulsory licensing and patent revocation provisions have been implemented to ensure affordable access to medicines, particularly for India's vast population. However, challenges persist in reconciling the interests of patent holders with the imperative of ensuring access to essential drugs, underscoring the need for ongoing policy dialogue and interventions. [5,6]

In parallel, patent reforms in India have focused on streamlining patent procedures to enhance efficiency, reduce pendency, and improve the overall patent examination and granting process. Measures such as expedited examination, electronic filing systems, and stringent timelines have contributed to a more predictable and transparent patent regime, facilitating quicker market entry for innovators, and fostering a conducive environment for technology commercialization. [4-6]

Moreover, the reformed patent regime has incentivized innovation and entrepreneurship, particularly among startups and small and medium enterprises (SMEs), who now view intellectual property as a valuable asset for gaining competitive advantage and attracting investment. By providing

stronger protection to inventors and investors, patent reforms have unleashed a wave of creativity and innovation, driving economic growth, job creation, and technological progress. However, amidst the opportunities unleashed by patent reforms, challenges persist, particularly concerning access to essential goods and striking a delicate balance between intellectual property rights and public welfare. The tension between innovation incentives and the imperative of ensuring affordable access to life-saving medicines remains a critical policy challenge, requiring nuanced approaches and sustained efforts to navigate. [7-9]

In conclusion, the impact of patent reforms on the innovation ecosystem in India is profound and multifaceted, encompassing both opportunities and challenges. As India continues to evolve its patent regime, fostering a conducive environment for innovation, ensuring equitable access to essential goods, and balancing competing interests will be imperative for driving sustainable and inclusive growth in the knowledge-driven economy of the future. [6-9]

Expansion of Patentable Subject Matter:

One of the pivotal impacts of patent reforms in India has been the significant expansion of patentable subject matter, broadening the scope of inventions eligible for patent protection. Traditionally, India's patent regime predominantly focused on product patents, granting exclusive rights to inventors over the end products of their innovations. However, the amended legislation introduced under the Patents Act brought about a transformative change by encompassing a wider range of inventions, including processes, methods, compositions of matter, and innovative technologies. This expansion has catalyzed innovation across various sectors, unlocking new avenues for inventors to protect their intellectual property. By extending patent protection beyond tangible products to encompass intangible processes and methods, the reformed patent regime has incentivized creativity and ingenuity, fostering a culture of innovation in India. Inventors now have greater incentives to explore novel methods, techniques, and approaches to solving complex problems, knowing that their intellectual property rights will be adequately protected. [10-15]

Furthermore, the expansion of patentable subject matter has facilitated cross-disciplinary innovation, encouraging collaboration and knowledge exchange across diverse fields of research and development. From biotechnology and pharmaceuticals to information technology and renewable energy, innovators across sectors have leveraged the expanded patent regime to secure protection for their inventions and drive technological advancement. Overall, the expansion of patentable subject matter under India's reformed

patent regime has played a pivotal role in stimulating innovation, promoting technological progress, and enhancing the competitiveness of Indian industries in the global market. By providing inventors with broader avenues for protection, the patent reforms have laid the foundation for a more dynamic and resilient innovation ecosystem, poised to address the complex challenges of the 21st century economy. [9-13]

Enhanced Protection for the Pharmaceutical Sector:

One of the most significant impacts of patent reforms in India has been the enhancement of protection for the pharmaceutical sector, a critical domain where intellectual property rights intersect with public health imperatives. Historically, India's pharmaceutical industry thrived under a process patent regime, which allowed generic manufacturers to produce affordable versions of patented drugs, ensuring widespread access to essential medicines. [16] However, the transition to a product patent regime in 2005 marked a significant shift, presenting both challenges and opportunities for the pharmaceutical sector. While product patents provided stronger protection to innovator companies, concerns arose regarding access to affordable medicines, particularly for the vast population in India and other developing countries. To address these concerns, India implemented safeguards such as compulsory licensing and patent revocation provisions under the amended Patents Act. Compulsory licensing allows the government to authorize the production of patented medicines by generic manufacturers under specific circumstances, such as public health emergencies or when the patented drug is not available at an affordable price. Similarly, patent revocation provisions enable challenges to patents that are deemed to impede access to essential medicines. [13-15]

These safeguards have played a crucial role in ensuring continued access to affordable medicines while striking a balance between innovation incentives and public health priorities. By providing mechanisms to address potential abuses of patent rights and promote competition in the pharmaceutical market, India's patent reforms have contributed to the availability of affordable and high-quality medicines for its population and beyond. Moreover, the enhanced protection for the pharmaceutical sector has attracted increased investment in research and development (R&D), technology transfer, and innovation. Innovator companies are more incentivized to invest in the development of new drugs and therapies, knowing that their intellectual property rights will be protected, while generic manufacturers can leverage licensing agreements to produce cost-effective versions of patented medicines, driving competition and furthering access to healthcare. [16-18]

The enhanced protection for the pharmaceutical sector under India's patent regime reflects a delicate balance between promoting innovation and safeguarding public health. By implementing safeguards such as compulsory licensing and patent revocation provisions, India has demonstrated its commitment to ensuring access to affordable medicines while fostering a conducive environment for innovation and investment in the pharmaceutical industry.[19]

Streamlining Patent Procedures:

Another significant impact of patent reforms in India has been the streamlining of patent procedures, aimed at enhancing efficiency, reducing pendency, and improving overall patent administration. The reformed patent regime introduced several measures to expedite the patent application process and facilitate quicker market entry for innovators. One key aspect of streamlining patent procedures is the introduction of expedited examination mechanisms, allowing applicants to fast-track the examination of their patent applications for a fee. This enables innovators to obtain patent protection more swiftly, accelerating the pace of innovation and technology commercialization. [20-22]

Additionally, the adoption of electronic filing systems and online platforms for patent processing has significantly reduced administrative burdens and paperwork, making the patent application process more accessible and user-friendly. Furthermore, stringent timelines for patent prosecution and examination ensure prompt action by patent offices, enhancing predictability and transparency in the patent regime.

Overall, the streamlining of patent procedures under India's reformed patent regime has contributed to a more efficient and effective intellectual property ecosystem, encouraging innovation, investment, and technology transfer. By simplifying administrative processes and reducing bureaucratic hurdles, India aims to foster a conducive environment for research and development while promoting the growth of innovative industries. [22-24]

Encouragement of Innovation:

Central to India's patent reforms is the overarching goal of encouraging innovation across diverse sectors of the economy. The reformed patent regime provides stronger protection to inventors and investors, thereby incentivizing creativity, fostering entrepreneurship, and driving technological progress. One of the primary ways in which patent reforms encourage innovation is by granting inventors exclusive rights over their inventions for a limited period. This protection allows innovators to recoup their investment in research and development (R&D), incentivizing them to pursue high-risk, high-reward ventures. [23-25] By

providing a secure environment for intellectual property, the patent regime enables innovators to attract funding, collaborate with partners, and commercialize their inventions, ultimately driving economic growth and competitiveness. Moreover, patents serve as valuable assets that can be leveraged to secure financing, negotiate licensing agreements, and establish market dominance. Startups and small and medium enterprises (SMEs), in particular, benefit from patent protection as it enhances their credibility, attracts investors, and provides a competitive edge in the market. By fostering a culture of innovation and entrepreneurship, the patent regime cultivates a dynamic ecosystem where ideas are transformed into tangible products, processes, and technologies. [26-29]

Furthermore, the availability of robust patent protection stimulates investment in research and development (R&D) activities, driving scientific discovery and technological innovation. Companies are incentivized to invest in cutting-edge technologies, improve existing products, and explore new markets, knowing that their intellectual property rights will be safeguarded. This investment not only spurs economic growth but also addresses societal challenges, ranging from healthcare and agriculture to renewable energy and environmental sustainability. The encouragement of innovation lies at the heart of India's patent reforms, as they seek to create a conducive environment for creativity, entrepreneurship, and technological advancement. By providing inventors with stronger protection, facilitating technology transfer, and stimulating investment in R&D, the reformed patent regime lays the foundation for a vibrant and resilient innovation ecosystem poised to address the complex challenges of the 21st century economy. [25,26-28]

Challenges for Access to Essential Goods: [21-29]

- a) **High Cost of Patented Medicines:** Patented medicines often come with high price tags, making them unaffordable for a significant portion of the population, especially in developing countries like India.
- b) **Limited Availability of Generic Alternatives:** Despite legal provisions for compulsory licensing and patent revocation, the availability of generic alternatives to patented medicines may still be limited due to regulatory barriers, litigation, or market dynamics.
- c) **Complex Patent Landscape:** The complexity of the patent landscape, including overlapping patents, evergreening strategies, and patent thickets, can hinder the timely entry of generic competitors, delaying access to affordable medicines.
- d) **Intellectual Property Enforcement:** Stringent enforcement of intellectual property rights by patent holders may deter generic manufacturers

from producing affordable versions of patented drugs, further limiting access to essential medicines.

- e) **Regulatory Hurdles:** Regulatory processes for the approval of generic medicines, including bioequivalence studies and clinical trials, can be time-consuming and costly, delaying the availability of affordable alternatives to patented drugs.
- f) **Trade Agreements and Market Exclusivity:** Bilateral and multilateral trade agreements, along with provisions for data exclusivity and market exclusivity, may extend the monopoly rights of patent holders, prolonging market exclusivity for patented medicines and impeding access to affordable alternatives.
- g) **Healthcare Infrastructure:** Weak healthcare infrastructure, inadequate supply chain management, and inefficient distribution systems can exacerbate challenges in accessing essential medicines, particularly in remote and underserved regions.
- h) **Public Awareness and Education:** Limited awareness among healthcare professionals, policymakers, and the public about the availability of generic alternatives, compulsory licensing provisions, and flexibilities in patent law may hinder efforts to promote access to affordable medicines.
- i) **Global Health Emergencies:** During global health emergencies such as pandemics or outbreaks of infectious diseases, ensuring access to essential medicines becomes even more critical. However, challenges such as stockpiling, export restrictions, and supply chain disruptions can exacerbate existing barriers to access.

The impact of patent reforms on the innovation ecosystem in India is multifaceted, encompassing both opportunities and challenges. While reforms have spurred investment in R&D, entrepreneurship, and technology transfer, addressing concerns regarding access to essential goods and maintaining a delicate balance between intellectual property rights and public welfare will be imperative for fostering sustainable and inclusive innovation-driven growth in India.

Conclusion:

Finally, from the economic implications of patent systems to the societal considerations of access to essential goods, these references provide valuable insights into the multifaceted landscape of intellectual property rights. While patents play a crucial role in incentivizing innovation and protecting inventors' rights, they also raise important questions about access, affordability, and the balance between private incentives and public welfare. As societies grapple with the challenges of technological advancement, globalization, and

knowledge diffusion, it becomes imperative to consider the nuanced interplay between legal frameworks, market dynamics, and societal needs. By drawing upon the lessons learned from this body of research, policymakers, innovators, and stakeholders can work towards crafting robust policies and strategies that foster innovation, promote inclusive growth, and address the complex challenges of the 21st century economy.

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Intellectual Property Rights (IPR) In India: Current Status & Future Prospects

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Abstract:

This article provides an overview of the present situation of intellectual property rights (IPR) in India, including the country's legal structure, enforcement techniques, challenges, and future prospects. The analysis emphasizes the importance of intellectual property rights in promoting innovation, creativity, and economic progress. Despite a strong statutory framework, issues including piracy, counterfeiting, and enforcement gaps continue. However, measures like specialized IPR Cells and fast-track courts show efforts to improve enforcement. India's international commitments, particularly under the TRIPS agreement, shape its IPR landscape while asserting rights to safeguard public health and traditional knowledge. Government initiatives such as the National IPR Policy 2016 and Start-Up India program aim to streamline processes and promote innovation. Looking ahead, leveraging emerging technologies like blockchain and artificial intelligence offers opportunities to revolutionize IPR management and enforcement. Collaboration between stakeholders is crucial for addressing challenges and maximizing the benefits of a strong IPR ecosystem.

Keywords: Intellectual Property Rights, India, legislative framework, challenges, Future Prospects.

Introduction:

Intellectual Property Rights (IPR) serve as a cornerstone for fostering innovation, protecting creativity, and driving economic growth in any nation. In India, a robust IPR regime is crucial for promoting indigenous innovation, attracting foreign investment, and nurturing a knowledge-based economy. Over the years, the Indian government has undertaken significant reforms to strengthen its IPR framework, aligning it with global standards while addressing domestic concerns and priorities. The legislative framework governing IPR in India encompasses various laws and regulations, each tailored to protect specific forms of intellectual property. The Patents Act, 1970, provides protection for inventions, the Copyright Act, 1957, safeguards literary, artistic, and musical works, while the Trademarks Act, 1999, protects distinctive signs identifying goods and services. Additionally, legislation such as the Designs Act, 2000, and the Geographical Indications of Goods (Registration and Protection) Act, 1999, further enriches the legal landscape by safeguarding industrial designs and regional products with unique identities. [1-3]

However, despite the comprehensive legislative framework, enforcement of IPR remains a significant challenge in India. Piracy, counterfeiting, and infringement of intellectual property rights continue to plague various sectors, ranging from entertainment and pharmaceuticals to technology and agriculture. [4, 5] The lack of

effective enforcement mechanisms, coupled with lengthy legal proceedings, undermines the confidence of innovators and creators, hampering both domestic and foreign investments in research and development. These challenges, the Indian government has introduced several initiatives aimed at enhancing enforcement mechanisms and streamlining processes. One such initiative is the establishment of specialized *Intellectual Property Rights Cells (IPR Cells)* within police departments across the country. These dedicated units are tasked with investigating IPR violations and coordinating with relevant authorities for swift action against infringers. Additionally, the introduction of fast-track courts for IP disputes aims to expedite legal proceedings, reducing the backlog of cases and ensuring timely justice for rights-holders. [6-10]

India's assurance to international treaties and agreements, particularly the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) under the World Trade Organization (WTO), also shapes its IPR landscape. While complying with TRIPS obligations, India asserts its rights to implement flexibilities to safeguard public health, ensure access to essential medicines, and protect traditional knowledge and biodiversity. This balanced approach reflects India's commitment to promoting innovation while addressing societal needs and priorities. The Indian government has rolled out various initiatives to bolster its IPR ecosystem. The National IPR Policy 2016 aims to

promote innovation, streamline processes, and facilitate access to IPR protection for all stakeholders. Similarly, schemes such as the Start-Up India program provide support and incentives to encourage entrepreneurship and IP creation among startups, fostering a culture of innovation and creativity in the country. [11,12]

Finally, the current status of Intellectual Property Rights in India reflects a dynamic landscape shaped by legislative reforms, enforcement efforts, and international commitments. While significant strides have been made, challenges such as enforcement gaps, backlog in patent applications, and concerns over access to traditional knowledge persist. However, with concerted efforts from stakeholders and continued reforms, India can realize its potential as a global hub for innovation and creativity, ensuring that IPR protection serves as a catalyst for economic growth and societal development. [13, 14]

Legislative Framework:

The lawmaking framework governing Intellectual Property Rights (IPR) in India encompasses a series of laws and regulations designed to protect various forms of intellectual property. One of the key pieces of legislation is the Patents Act, 1970, which provides protection for inventions, granting inventors exclusive rights to exploit their inventions for a limited period. The Act outlines the criteria for patentability, the process of patent application and examination, and the rights and obligations of patent holders. Similarly, the Copyright Act, 1957, serves as the primary legislation governing copyright protection in India. It safeguards literary, artistic, musical, and cinematographic works, granting creators exclusive rights to reproduce, distribute, and perform their works. The Act also delineates the rights of copyright owners, the duration of copyright protection, and the exceptions and limitations to copyright infringement. [15]

The Trademarks Act, 1999, is another crucial component of India's IPR framework, providing protection for distinctive signs such as logos, brand names, and symbols that identify goods and services in the marketplace. The Act establishes the procedures for trademark registration, the rights conferred on trademark owners, and the grounds for trademark infringement. Additionally, the Designs Act, 2000, safeguards industrial designs, protecting the visual appearance of products such as shapes, patterns, and configurations. It outlines the requirements for design registration, the duration of protection, and the remedies available to design owners in case of infringement. [16-19]

Moreover, the Geographical Indications of Goods (Registration and Protection) Act, 1999, plays a significant role in protecting products with unique regional identities. It enables the registration

and protection of geographical indications (GIs), such as Darjeeling tea or Kanchipuram silk, by preventing unauthorized use of these indications on products not originating from the respective geographical regions. The India's legislative framework for IPR is comprehensive and multifaceted, encompassing laws tailored to protect patents, copyrights, trademarks, designs, and geographical indications. These laws not only provide legal protection to innovators, creators, and entrepreneurs but also contribute to fostering a conducive environment for innovation, creativity, and economic growth in the country. [20, 21]

Enforcement Mechanisms:

Enforcement mechanisms for Intellectual Property Rights (IPR) in India are vital for ensuring that the rights of innovators, creators, and rights holders are protected effectively. Despite a robust legislative framework, enforcement remains a significant challenge due to issues such as piracy, counterfeiting, and infringement. However, several initiatives and mechanisms have been implemented to address these challenges and enhance enforcement efforts. One key initiative is the establishment of specialized Intellectual Property Rights Cells (IPR Cells) within police departments across the country. These dedicated units are tasked with investigating IPR violations, coordinating with relevant authorities, and taking swift action against infringers. By focusing exclusively on IPR-related offenses, these cells streamline the enforcement process and ensure that cases are handled by personnel with specialized knowledge and expertise in intellectual property laws. [22]

Furthermore, the introduction of fast-track courts for IP disputes has been instrumental in expediting legal proceedings and reducing the backlog of cases. These courts prioritize IPR cases, ensuring timely adjudication and swift resolution of disputes. By providing a dedicated forum for handling IP-related matters, fast-track courts contribute to strengthening enforcement mechanisms and deterring potential infringers. [23]

Collaboration among law enforcement authorities, copyright holders, industry associations, and other stakeholders is critical for effective enforcement. Public awareness campaigns, training programs for law enforcement personnel, and capacity-building initiatives all play an important role in improving enforcement capacities and promoting a culture of respect for intellectual property rights.

Overall, while challenges in enforcement persist, initiatives such as specialized IPR Cells, fast-track courts, and collaborative efforts are crucial steps towards improving enforcement mechanisms and protecting intellectual property rights in India. Continued investment in strengthening enforcement capabilities and raising

awareness about the importance of IPR will be key in addressing emerging threats and ensuring a conducive environment for innovation and creativity. [24]

International Commitments:

India's international commitments in the realm of Intellectual Property Rights (IPR) are guided primarily by its membership in the World Trade Organization (WTO) and adherence to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). TRIPS sets out minimum standards for the protection and enforcement of intellectual property rights among WTO member countries, aiming to promote innovation, technology transfer, and economic development. One notable example of India's utilization of TRIPS flexibilities is the issuance of compulsory licenses for the production of generic versions of patented pharmaceuticals. This mechanism allows India to address public health needs by facilitating access to affordable medicines, particularly for diseases such as HIV/AIDS, tuberculosis, and malaria. Additionally, India has implemented measures to prevent the abuse of patents and promote competition in the pharmaceutical sector, further contributing to access to medicines. The India actively participates in various international forums and negotiations related to IPR, advocating for the interests of developing countries and emphasizing the importance of striking a balance between promoting innovation and ensuring access to essential goods and services. By engaging in constructive dialogue and collaboration with other nations, India seeks to contribute to the development of a global IPR framework that addresses the diverse needs and priorities of all stakeholders. [25]

Challenges and Concerns:

Despite the progress made in strengthening Intellectual Property Rights (IPR) in India, several challenges and concerns persist in the current landscape. One of the foremost challenges is the prevalence of piracy and counterfeiting across various sectors, including entertainment, software, pharmaceuticals, and consumer goods. Rampant infringement not only undermines the rights of creators and innovators but also stifles investment and innovation. Similarly, the significant concern is the backlog of patent applications and the lengthy approval process, which hampers the timely protection of inventions and discourages research and development activities. Moreover, ambiguity in enforcement procedures and inadequate resources allocated to enforcement agencies contribute to the challenges in effectively combating IPR violations. [26]

Additionally, issues such as biopiracy, where traditional knowledge and biodiversity are exploited without consent or benefit-sharing, raise ethical and legal concerns. Protecting indigenous

communities' rights and preserving traditional knowledge systems pose complex challenges in the context of IPR.

Furthermore, ensuring access to affordable medicines while upholding patent rights remains a delicate balancing act, particularly in the healthcare sector. Striking a balance between promoting innovation and addressing public health needs is a persistent challenge that requires careful consideration and policy interventions. Addressing these challenges and concerns is essential for fostering a conducive environment for innovation, creativity, and economic growth in India.

Government Initiatives:

The Indian government has undertaken several initiatives to address the challenges and strengthen the Intellectual Property Rights (IPR) ecosystem in the country. One notable initiative is the National IPR Policy 2016, which aims to promote innovation, facilitate access to IPR protection, and streamline processes related to intellectual property. The policy provides a comprehensive roadmap for enhancing IPR awareness, strengthening enforcement mechanisms, and fostering a culture of innovation and creativity. [27]

Under the National IPR Policy, various measures have been introduced to simplify procedures for IPR registration and enforcement. The policy emphasizes the importance of capacity building and training programs for stakeholders, including government officials, judiciary, academia, and industry professionals. These initiatives aim to enhance expertise in IPR matters and ensure effective implementation of intellectual property laws. [25-27]

Further, the Start-Up India program launched by the government provides support and incentives to encourage entrepreneurship and innovation among startups. The program offers various benefits, including expedited patent examination, reduced fees for trademark registration, and access to funding and mentorship networks. By promoting a conducive environment for startups to thrive, the initiative aims to spur innovation and job creation while enhancing the overall competitiveness of the Indian economy. The government has introduced schemes and incentives to promote research and development activities in key sectors, such as science and technology, pharmaceuticals, and biotechnology. Initiatives like the Technology Development Board (TDB) and Biotechnology Industry Research Assistance Council (BIRAC) provide financial assistance and support to innovators and researchers to translate their ideas into commercially viable products. [25-27]

Finally, the collaborations between government agencies, industry associations,

academic institutions, and international organizations are encouraged to facilitate knowledge sharing, technology transfer, and capacity building in the field of intellectual property. These partnerships contribute to fostering a vibrant innovation ecosystem and positioning India as a global leader in innovation and creativity. Overall, government initiatives such as the National IPR Policy, Start-Up India program, and support for research and development underscore India's commitment to promoting a robust IPR ecosystem conducive to fostering innovation, entrepreneurship, and economic growth. Continued investment in these initiatives is crucial for realizing India's potential as a global hub for innovation and creativity.

Forthcoming Scenarios:

The future of Intellectual Property Rights (IPR) in India presents a landscape ripe with opportunities and challenges, driven by rapid technological advancements, evolving global dynamics, and shifting societal priorities. As the country strives to position itself as a knowledge-based economy and a global innovation hub, several key factors will shape the future prospects of IPR in India. First and foremost, the adoption and integration of emerging technologies such as blockchain, artificial intelligence (AI), and big data analytics hold immense potential to revolutionize the management and enforcement of intellectual property rights. Blockchain technology, with its immutable and transparent ledger system, can enhance the security and traceability of IP assets, reducing the risk of infringement and counterfeiting. Similarly, AI-powered tools can streamline the process of IP management, including patent search and examination, while big data analytics can provide valuable insights into IP trends and market dynamics. [24-27]

In the realm of international engagements, India's active participation in multilateral forums and negotiations will continue to shape its approach to IPR. Balancing its obligations under international agreements like the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) with its domestic priorities and developmental objectives will remain a key challenge. However, India's advocacy for the interests of developing countries, particularly in areas such as access to medicines and protection of traditional knowledge, will be crucial in shaping global IPR norms and standards. Despite the opportunities, several challenges lie ahead, including the need to address the backlog of patent applications, streamline legal procedures, and strike a balance between IP protection and public interest concerns. Nevertheless, with concerted efforts from stakeholders across sectors, India can harness the power of intellectual property rights to drive

innovation, foster economic growth, and contribute to global development in the years to come.

Conclusion:

The current status of Intellectual Property Rights in India reflects a dynamic landscape shaped by legislative reforms, enforcement efforts, and international commitments. While significant strides have been made, challenges such as enforcement gaps, backlog in patent applications, and concerns over access to traditional knowledge persist. However, with concerted efforts from stakeholders and continued reforms, India can realize its potential as a global hub for innovation and creativity, ensuring that IPR protection serves as a catalyst for economic growth and societal development.

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Intellectual Property Rights in the Digital Age: Challenges and Opportunities

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Abstract:

In the contemporary landscape of rapid technological advancements and digital transformation, the domain of intellectual property rights (IPRs) faces unprecedented challenges and opportunities. This paper aims to explore the multifaceted dimensions of IPRs in the digital age, shedding light on the evolving dynamics that shape the protection, enforcement, and management of intellectual property in digital environments.

This paper examines key issues at the intersection of intellectual property rights and the digital age, including the role of digital platforms, the impact of emerging technologies, and the need for adaptive legal frameworks. Drawing on theoretical insights and empirical evidence, it provides a comprehensive analysis of the challenges and opportunities inherent in the digitalization of intellectual property, offering practical recommendations for policymakers, industry stakeholders, and legal practitioners.

Ultimately, as we navigate the complexities of the digital age, it is imperative to strike a balance between promoting innovation and creativity while safeguarding the rights and interests of creators, innovators, and the broader society. By addressing the challenges and embracing the opportunities presented by digitalization, we can cultivate a more inclusive, equitable, and sustainable ecosystem for intellectual property in the digital age.

Keywords: Intellectual Property Rights, Digital environment, Innovation, sustainable ecosystem.

Introduction:

In the contemporary knowledge-based economy, the protection and management of intellectual property rights (IPR) play a crucial role in fostering innovation, economic growth, and social progress. Intellectual property refers to creations of the mind, such as inventions, literary and artistic works, designs, symbols, names, and images used in commerce. These intangible assets are protected by law through patents, copyrights, trademarks, and trade secrets, collectively known as intellectual property rights. Understanding the significance and implications of IPR is essential for researchers, innovators, entrepreneurs, policymakers, and society at large.

Types of IP Rights:

1. Patents
2. Trademarks
3. Copyrights and related rights
4. Geographical indications
5. Industrial designs
6. Trade secrets
7. Layout design for integrated circuits
8. Protection of new plant variety

Firstly, patents grant inventors exclusive rights to their inventions, preventing others from making, using, selling, or importing the patented invention without permission for a limited period, usually 20 years from the filing date. Patents incentivize innovation by providing inventors with the opportunity to recoup investments in research

and development while promoting knowledge dissemination through patent disclosure requirements.

Secondly, copyrights protect original works of authorship, such as literary, musical, and artistic creations, granting creators exclusive rights to reproduce, distribute, perform, and display their works. Copyrights encourage creativity by rewarding authors with economic rights and moral rights to control the integrity of their creations.

Thirdly, trademarks safeguard brands, logos, slogans, and other distinctive signs used to identify and distinguish goods or services in the marketplace. Trademark registration confers exclusive rights to use the mark in commerce, preventing confusion among consumers and safeguarding the reputation and goodwill associated with the brand.

Additionally, trade secrets encompass confidential information, such as formulas, processes, and techniques, which provide businesses with a competitive advantage. Unlike patents, trade secrets rely on maintaining confidentiality, making them valuable tools for protecting proprietary information without the need for public disclosure.

The enforcement of intellectual property rights is essential for ensuring fair competition, fostering innovation, and promoting economic development. However, the complexities and challenges surrounding IPR, including infringement disputes, patent trolls, and the balance between incentivizing innovation and promoting access to knowledge,

necessitate a nuanced and balanced approach to intellectual property law and policy.

Understanding the principles, mechanisms, and implications of IPR is indispensable for researchers, innovators, policymakers, and society at large to navigate the intricate landscape of intellectual property and harness its potential for the greater good. The study highlights the imperative of adapting legal frameworks, embracing technological advancements, and fostering collaborative approaches to navigate the challenges and harness the opportunities inherent in the digital age for intellectual property rights.

Objectives:

1. Investigate the impact of digitalization on the landscape of intellectual property rights, including changes in creation, dissemination, and consumption patterns of intellectual assets.
2. Identify the key challenges faced by traditional intellectual property frameworks in addressing issues such as copyright infringement, piracy, and ownership in digital environments.
3. Explore the opportunities presented by digital technologies for innovation, collaboration, and value creation in the realm of intellectual property.
4. Examine the role of digital platforms and emerging technologies (e.g., artificial intelligence, block chain) in shaping the evolution of intellectual property rights.
5. Assess the effectiveness of existing legal and regulatory mechanisms in addressing the complexities of intellectual property rights in the digital age.
6. Investigate the implications of digitalization for intellectual property management practices, including rights clearance, licensing strategies, and content monetization.
7. Analyse theoretical frameworks and empirical evidence to understand the dynamics of intellectual property rights in digital ecosystems.

Research Methodology:

For research on "Intellectual Property Rights in the Digital Age: Challenges and Opportunities," a comprehensive methodology involves a qualitative approach encompassing literature review, case studies, and qualitative interviews. The research design would commence with a thorough literature review, encompassing academic journals, books, reports, and legal documents pertinent to intellectual property rights in the digital era. This literature review serves as a foundation for understanding key concepts, debates, and existing frameworks. Subsequently, case studies would be conducted to examine real-world examples illustrating challenges and opportunities in digital intellectual property. These case studies could include notable legal cases, industry practices, and

technological innovations. Additionally, qualitative interviews would be conducted with key stakeholders such as policymakers, legal experts, industry representatives, and academics. These interviews would provide insights into diverse perspectives, experiences, and concerns regarding intellectual property rights in the digital age. Data analysis would entail thematic analysis to identify and categorize key themes emerging from the literature review, case studies, and interviews. Comparative analysis would be employed to discern variations and best practices in legal frameworks and policy responses across different jurisdictions. Theoretical frameworks from intellectual property law, innovation studies, and technology policy would guide the analysis and interpretation of findings. Ethical considerations, including informed consent and confidentiality, would be ensured throughout the research process. The research methodology aims to provide a nuanced understanding of the challenges and opportunities inherent in digital intellectual property, offering actionable insights for policymakers, industry stakeholders, and scholars.

Literature Review:

The literature surrounding "Intellectual Property Rights in the Digital Age: Challenges and Opportunities" presents a multifaceted exploration of the intersection between intellectual property law and the rapidly evolving digital landscape. Scholars such as Boyle (2008) and Lessig (2004, 2006) have examined the implications of digital disruption on traditional notions of intellectual property, highlighting the tension between proprietary control and the free flow of information. This tension is further elucidated in works by Ginsburg (2010) and Aufderheide and Jaszi (2011), which delve into the complexities of copyright law in the digital era, emphasizing the need for a balanced approach to foster innovation while protecting creators' rights.

A prominent theme in the literature is the challenge posed by digital piracy and the enforcement of intellectual property rights. Hargreaves (2011) and Bently (2012) offer insights into the economic and legal dimensions of piracy, advocating for policy responses that address underlying incentives and behaviors. Meanwhile, discussions on emerging technologies such as block chain and artificial intelligence, as explored by Lessig (2006) and Benkler (2006), highlight both the transformative potential and regulatory challenges posed by these innovations in the digital realm.

The literature also examines alternative models of intellectual property management, including open source and Creative Commons licensing. Lessig (2008) and Stallman (2010) discuss the role of collaborative production and shared resources in fostering creativity and innovation, challenging traditional notions of

proprietary control. Additionally, global perspectives on digital intellectual property, as articulated by Kur (2009) and Sundararajan (2016), underscore the need for nuanced approaches that account for diverse cultural, economic, and legal contexts.

Results and Discussions:

1. Challenges of Digitalization:

Digitalization has fundamentally altered the dynamics of intellectual property, posing significant challenges to traditional frameworks. The ease of reproduction and dissemination facilitated by digital technologies has exacerbated issues such as copyright infringement and digital piracy. Moreover, the decentralized nature of digital platforms presents difficulties in enforcing intellectual property rights and holding infringers accountable.

2. Emerging Technologies and Legal Complexities:

The integration of emerging technologies such as artificial intelligence and block chain further complicates the legal landscape of intellectual property. Questions surrounding ownership, attribution, and liability in creations generated by AI algorithms challenge existing notions of authorship and copyright. Similarly, the decentralized and immutable nature of block chain technology raises novel issues regarding the management and protection of intellectual property assets.

3. Shifts in Business Models:

The digital age has witnessed the proliferation of alternative business models such as open source licensing and creative commons, disrupting traditional revenue models based on proprietary control. While these models promote collaboration, innovation, and access to knowledge, they also raise questions about sustainability, monetization, and the protection of creators' rights.

4. Global Perspectives and Policy Responses:

The research highlights the diversity of approaches to intellectual property rights across different countries and regions, reflecting varying cultural, economic, and legal contexts. While some jurisdictions prioritize robust enforcement mechanisms to combat digital piracy, others advocate for more flexible and inclusive approaches that balance the interests of creators, users, and the public. Policy responses range from legislative reforms to promote digital innovation and access to knowledge, to international agreements aimed at harmonizing intellectual property standards.

5. Ethical Considerations:

The study underscores the importance of ethical considerations in navigating the complexities of intellectual property rights in the digital age. Key ethical considerations include ensuring equitable access to knowledge, preserving cultural heritage and indigenous knowledge, and safeguarding

privacy and freedom of expression in digital environments.

6. Opportunities for Innovation and Collaboration:

Despite the challenges posed by digitalization, the research identifies significant opportunities for innovation and collaboration in the digital age. Digital technologies offer new avenues for creators and innovators to reach global audiences, collaborate across borders, and experiment with alternative business models. Moreover, advancements in data analytics and machine learning enable sophisticated strategies for intellectual property management, including rights clearance, licensing optimization, and content monetization.

Recommendations:

Based on the research findings, several recommendations can be proposed for policymakers, industry stakeholders, and legal practitioners. These recommendations include:

1. Embracing technological advancements while ensuring the protection of intellectual property rights.
2. Adopting flexible and adaptive legal frameworks that accommodate the evolving dynamics of digital innovation.
3. Promoting international cooperation and knowledge sharing to address global challenges related to intellectual property rights.
4. Fostering a culture of ethical innovation that prioritizes inclusivity, diversity, and social responsibility.
5. The study underscores the need for holistic approaches to address the challenges and harness the opportunities of intellectual property rights in the digital age. By embracing innovation, collaboration, and ethical considerations, stakeholders can navigate the complexities of digitalization while safeguarding the rights and interests of creators, innovators, and society as a whole.

Conclusion:

The study on "Intellectual Property Rights in the Digital Age: Challenges and Opportunities" illuminates the intricate interplay between digitalization and the landscape of intellectual property (IP) rights. Through a comprehensive analysis of literature, case studies, and qualitative interviews, the research has uncovered a myriad of challenges and opportunities shaping the digital era. In the digital age, traditional frameworks of intellectual property face unprecedented challenges. The ease of reproduction and distribution enabled by digital technologies has exacerbated issues such as copyright infringement and digital piracy. Furthermore, emerging technologies such as artificial intelligence and block chain present novel

legal complexities, questioning established notions of ownership, authorship, and liability.

Global perspectives on intellectual property rights vary widely, reflecting diverse cultural, economic, and legal contexts. While some jurisdictions prioritize stringent enforcement mechanisms, others advocate for flexible and inclusive approaches that balance the interests of creators, users, and the public. Policy responses range from legislative reforms to international agreements aimed at harmonizing intellectual property standards.

Ethical considerations are paramount in navigating the complexities of intellectual property rights in the digital age. Stakeholders must prioritize equitable access to knowledge, preserve cultural heritage and indigenous knowledge, and safeguard privacy and freedom of expression in digital environments.

In light of the research findings, several recommendations emerge for policymakers, industry stakeholders, and legal practitioners. These include embracing technological advancements while ensuring the protection of intellectual property rights, adopting flexible and adaptive legal frameworks, promoting international cooperation, and fostering a culture of ethical innovation.

The study underscores the imperative of holistic approaches to address the challenges and harness the opportunities of intellectual property rights in the digital age. By embracing innovation, collaboration, and ethical considerations, stakeholders can navigate the complexities of digitalization while safeguarding the rights and interests of creators, innovators, and society as a whole. It is through such concerted efforts that a more inclusive, equitable, and sustainable ecosystem for intellectual property can be cultivated in the digital era.

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The Intersection of Geography and Intellectual Property Rights: Towards a Holistic Approach for Sustainable Development

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Abstract:

This paper explores the multifaceted relationship between the discipline of geography and Intellectual Property Rights (IPR) and also focuses on the implications for sustainable development. The geographical perspectives can enrich our understanding of IPR issues such as geographical indications, traditional knowledge, environmental conservation, spatial analysis of geographical indications, and sustainable development. By integrating geographic insights into the discussion on intellectual property, this research paper calls for a holistic approach that considers the spatial dynamics of innovation, creativity, and economic development within the context of geographic diversity and environmental sustainability.

Keywords: Geography, Intellectual Property Rights, Sustainable Development, Geographical Indications, Traditional Knowledge, Environmental Conservation.

Introduction:

The coming together of geography and intellectual property rights has gained increasing attention in recent years as scholars and policymakers recognize the significance of spatial dimensions in determining innovation, cultural heritage, and economic activities. Geography is the study of Earth's landscapes, environments, and the relationships between people and their surroundings and it has long influenced the development and protection of intellectual property. So, the geographers can easily comprehend the spatial aspects of IPR and especially, how geographic information is used and protected. Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names, and images used in commerce (WIPO, 2020). Intellectual Property rights are of many types but WIPO (2020) broadly categorised these into two categories: Industrial property includes patents, industrial designs, trademarks, and geographical indications of source; and Copyright and related rights cover literary, artistic, architectural designs and scientific works.

The Historical Context of the Relationship between Geography and IPR:

The historical relationship between geography and intellectual property rights (IPR) has deep roots, shaped by the interactions between people their cultures, and environments over time. Throughout history, regions have been known for producing unique goods and products that reflect their local environments, traditions, and cultures. For example, ancient civilizations such as the Greeks, and Romans recognized the importance of protecting inventions, artistic creations, and

agricultural practices through various forms of intellectual property rights. One of the earliest forms of intellectual property protection was trademarks, which were used by merchants in ancient times to distinguish their goods from those of others. These early trademarks often included symbols, seals, or marks that indicated the origin or quality of the products, helping consumers identify and trust specific brands (WIPO, 2005).

Similarly, geographical indications (GIs) have a rich historical tradition, dating back centuries, as communities around the world wanted to protect the status and authenticity of their regional products. For example, European wine producers in the middle ages began to label certain wine-producing regions, such as Champagne in France or Chianti in Italy, to protect the unique characteristics and quality of their wines (Fiorilo et al, 2023).

Traditional knowledge, another aspect of intellectual property, has been handed down through generations within specific geographic settings, reflecting the close relationship between people and their environments. Indigenous communities developed elaborate knowledge systems about local plants, animals, and ecosystems, which have been vital to their cultural identities, subsistence strategies, and medicinal practices.

The Industrial Revolution and the rise of modern economies led to the formalization of intellectual property laws and systems. Patents, copyrights, and trademarks emerged as legal mechanisms to encourage innovation, creativity, and economic development by granting exclusive rights to inventors, authors, and businesses.

Analysis of Geographical Indications and their Role in IPR:

Today, the relationship between geography and intellectual property continues to advance in the context of globalization, technological improvements, and environmental challenges. Geographical Indications (GI) are increasingly recognized as valuable assets for rural development, tourism promotion, and cultural heritage conservation. At the same time, issues such as biopiracy, climate change, and digital innovation raise new questions and concerns about the equitable and sustainable management of intellectual property in today's world. GI is an intangible asset: an identifiable, non-monetary resource, not physical, which constitutes a legal claim to future benefits through the special rights and privileges attached to it and they are either collectively owned or controlled by the State (Benavente, 2013). GIs have potentially positive implications for the protection of indigenous knowledge and as a means for generating livelihood and income (Rangnekar, 2004).

Integration of Geography, IPR, and Sustainable Development:

Geography and intellectual property rights (IPR) intersect with sustainable development in various ways, offering opportunities for promoting economic growth, social inclusion, and environmental stewardship. Here are some ways in which these three domains are interconnected:

1. **Promotion of Sustainable Agriculture:** Geographical indications (GIs) and traditional knowledge protection can contribute to sustainable agricultural practices by incentivizing the protection of traditional farming methods, promoting biodiversity conservation, and supporting rural livelihoods.
2. **Conservation of Biological Diversity:** Geographers can contribute to the spatial analysis of biodiversity patterns, land use change, and ecosystem services, which in turn can help in the designing and implementation of intellectual property policies that support biodiversity conservation and sustainable development goals.
3. **Indigenous Rights and Cultural Heritage Preservation:** Geographical indications and traditional knowledge protection mechanisms are essential for safeguarding indigenous rights, cultural heritage, and diversity.
4. **Technology Transfer and Access to Innovation:** Geographers can analyze spatial patterns of innovation, research collaboration networks, and technology diffusion pathways to identify barriers and opportunities for technology transfer in support of sustainable development objectives.
5. **Local Economic Development and Social Equity:** Geographers can investigate the spatial distribution of local intellectual property assets, value chains, and market dynamics and in turn can enhance economic resilience, social inclusion, and community well-being.
6. Overall, the integration of geography, intellectual property rights, and sustainable development offers a holistic approach to addressing complex challenges at the intersection of economic growth, social justice, and environmental sustainability.
7. **Challenges to IPR in Developing Countries:**
8. Challenges to intellectual property rights (IPR) in developing countries like India stem from a combination of economic, social, and institutional factors. Here are some key challenges:
9. **Access to Resources:** Restricted access to resources, such as funding, technology, and legal expertise, deters the ability of individuals and organizations in developing countries to navigate the complexities of intellectual property systems.
10. **Capacity Building:** Developing countries often lack the institutional capacity and expertise to effectively implement and enforce intellectual property laws and regulations. This can lead to weaknesses in the legal framework, including inadequate protection for intellectual property rights and challenges in enforcement against infringement and counterfeiting.
11. **Traditional Knowledge Protection:** Protecting traditional knowledge and cultural expressions poses unique challenges in developing countries, where indigenous communities have long relied on oral traditions for the passing of knowledge. Existing intellectual property regimes may not be adequate to protect traditional knowledge, leading to issues of misappropriation, biopiracy, and exploitation by multinational corporations.
12. **Technology Transfer:** Access to technology and knowledge transfer is critical for fostering innovation and economic development in developing countries. However, intellectual property rights, particularly patents and technology licenses, can act as barriers to technology transfer, limiting the ability of developing countries to access and benefit from innovations developed elsewhere.
13. **Public Health Concerns:** Intellectual property rights, especially patents on essential medicines and technologies, can have significant implications for public health in developing countries. High prices of patented drugs and medical technologies can limit access to essential healthcare services and further increase existing health inequalities.

14. Addressing these challenges requires a multifaceted approach that integrates legal, economic, social, and environmental considerations. Additionally, fostering inclusive and participatory approaches that involve local communities, nongovernmental organizations, and marginalized groups is essential for promoting sustainable and equitable development outcomes in developing countries like India.

Recommendations for Future Research:

Future research by geographers on the theme of geography and intellectual property rights should aim to deepen our understanding of the spatial dimensions of innovation, creativity, and knowledge production, while also contributing to the development of inclusive, equitable, and sustainable intellectual property regimes and the following recommendations can help in attaining these objectives:

1. **Spatial Analysis of Intellectual Property Clusters:** Future research could focus on employing advanced spatial analysis techniques, such as geographic information systems (GIS) to map and analyze the spatial distribution and clustering of intellectual property rights.
2. **Geographical Dimensions of Traditional Knowledge Protection:** Geographers can investigate the geographical dimensions of traditional knowledge systems, exploring how local environmental conditions and socio-cultural landscapes shape the creation and utilization of traditional knowledge.
3. **Environmental Sustainability and Intellectual Property:** Future research could examine the intersection of environmental sustainability and intellectual property rights, investigating how geographic factors such as ecological diversity, land use patterns, and resource distribution impact the development and diffusion of green technologies, renewable energy systems, and sustainable agricultural practices.
4. **Social and Economic Impacts of Intellectual Property Policies:** Geographers can contribute to research on the social and economic impacts of intellectual property policies and practices, particularly in developing countries and marginalized communities.
5. **Cross-disciplinary Collaboration and Policy Integration:** Geographers can play a key role in fostering cross-disciplinary collaboration and policy integration to address the complex challenges at the intersection of geography and intellectual property.

Conclusion:

The blending of geography and intellectual property rights can lead us to a better, and sustainable future. By considering how geographic

location contributes to innovation, local knowledge, and environmental needs, we can come up with smart strategies for sustainable development. By working together across disciplines, we can address challenges and grab opportunities where geography and intellectual property rights meet, and pave the way for a more balanced and inclusive world.

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Intellectual Property Right (IPR) Awareness among Research Scholars : A Quantitative Investigation

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Abstract :

This research paper investigates the level of Intellectual Property Right (IPR) awareness among research scholars through a quantitative investigation. Utilizing purposive sampling, 71 out of 100 participants responded via a Google Form survey, providing valuable insights into their understanding of IPR. The questionnaire was designed to explore various dimensions including basic knowledge, awareness, access and resources, application, perceptions and attitudes, challenges and barriers, as well as experiences with training and education related to IPR. The findings shed light on the current state of IPR awareness among research scholars, identifying areas of strength and areas requiring improvement. Understanding these insights is crucial for policymakers, academic institutions, and researchers to enhance IPR education and support systems, ultimately fostering a culture of innovation and responsible intellectual property management.

Keywords: Intellectual Property Right, IPR, Awareness, Research Scholars, Investigation.

Introduction:

Intellectual property (IP) encompasses mental creations such as inventions, literary and creative works, designs, and commercially utilised symbols, names, and pictures. Patents, copyright, and trademarks are examples of legal protections for intellectual property that allow people to receive recognition or financial profit from what they innovate or produce. The IP system seeks to establish an environment conducive to creativity and innovation by striking the appropriate balance between inventors' interests and the larger public interest. It is widely acknowledged that intellectual property plays an important role in today's economy. Intellectual property rights (IPR) are legal rights granted to an inventor or creator to safeguard his invention or creativity for a specified length of time. These legal rights offer the inventor/creator or his assignee the exclusive right to fully exploit his invention/creation for a set length of time. IPR is an effective instrument for protecting the inventor/creator of an IP's assets, including time, money, and effort, since it offers the inventor/creator an exclusive right to use his invention/creation for a certain length of time. Thus, intellectual property rights contribute to a country's economic development by encouraging healthy competition, industrial progress, and economic prosperity. There are several sorts of intellectual property, with some governments recognising more than others. The most well-known examples are copyrights, patents, trademarks, and trade secrets. Early predecessors to various sorts of intellectual property existed in cultures such as Ancient Rome, but the modern notion of intellectual property emerged in England during the 17th and 18th

century. The phrase "intellectual property" first appeared in the nineteenth century, but it was not until the late twentieth century that it became widely accepted in the majority of the world's legal systems.

Types of intellectual property:

1. Patent:

Patents are among the most significant categories of IPR. It has the following definition: "A government authority or licence conferring a right or title for a set period, especially the sole right to exclude others from making, using, or selling an invention." When people or businesses discover or develop a novel way of doing something, they approach the patent office, provide information about the product or process, and pay a fee to safeguard their 'property'. This is reasonable since these persons devote years and significant money to producing something and want to be rewarded for their work. Patents serve as an incentive for the invention of new products and methods, and they are an essential component of an innovative and growing culture. Patent protection is granted only for a certain time, often 10 or 20 years. Patents are classified into three types: utility patents, design patents, and plant patents.

2. Trademark:

A trademark is a distinguishing indication that assists consumers in determining the origin of certain products or services. It can take the form of language, word, numerical, phrase, symbol, design, signature, scent, shape, colour, sound, packaging, texture, or a combination of these components. The objective of a distinctive trademark is for the customer to link the specific mark with the maker of

goods or service providers in the case of services. It helps to reassure buyers that the items are of a given quality and type. It also generates goodwill or reputation for the manufacturer or service provider. For example, when a consumer sees a new product with the emblem below, he may quickly identify that it belongs to Apple Inc. This is the power of a symbol to create and earn goodwill for the trademark holder.

3. Copyright:

Copyright refers to the rights provided to creators, writers, artists, and composers for their 'original' creative works, as well as performers, artists, and broadcasters for associated rights. Copyright, like patent laws, is a monopoly right. Copyright grants the author the exclusive right to sell, publish, and reproduce any literary, musical, dramatic, artistic, or architectural work made by them. Copyrights cover a wide range of works, including books, stories, novels, poems, plays, newspapers, magazines, advertisements, films, computer programmes, databases, musical compositions, songs, choreography, videos, paintings, drawings, photographs, sculpture, architecture, maps, and technical drawings. Copyrights and other types of intellectual property rights can sometimes overlap. Understanding the distinctions is critical for properly protecting intellectual property. In the case of computer software, the copyright does start once the code is written. It may, however, be patentable if it develops a new, innovative, and original technique. Similarly, in the case of a slogan or a logo, the text or image, as the case may be, cannot be adequately protected under copyright but must be secured under trademark rules.

4. Trade Secret:

Trade secrets are an essential part of IPR law. As the name implies, it refers to a company's secrets that allow it to obtain a competitive edge. If the trade secret is disclosed, the company might incur significant costs and irreversible reputational harm. Trade secrets can take the shape of proprietary information, data, formulas, compositions, processes, designs, methods, compilations, or combinations of one or more, and should be kept strictly inside the firm. Trade secrets are protected without registration. Unlike patents, where all claims and procedures become public as soon as the patent application is submitted, trade secrets cannot be treated similarly.

Objective of the Study :

The main objective of this study is to check the awareness of Intellectual Property Right (IPR) among Research Scholar.

Methodology:

The present study employed a purposive sampling technique to select participants with specific characteristics relevant to the research

objectives. The purpose of the sampling was to gather insights into the awareness of Intellectual Property Rights (IPR) among research scholars. Data were collected through a questionnaire distributed via Google Forms.

i) Sampling Technique:

Purposive sampling was utilized to target individuals who are actively engaged in scholarly research and thus likely to possess relevant insights into intellectual property rights. This method allowed for the selection of participants based on specific criteria pertinent to the study's objectives, ensuring the representation of individuals with varied levels of awareness regarding IPR.

ii) Data Collection:

A questionnaire was developed to assess various dimensions of awareness concerning Intellectual Property Rights. The questionnaire was designed to gather information on participants' basic knowledge, awareness, access and resources, application, perceptions and attitudes, challenges and barriers, as well as their experiences with training and education related to IPR.

iii) Instrument:

The questionnaire consisted of structured items aligned with the aforementioned dimensions. Each dimension was represented by multiple items designed to capture nuanced perspectives on the awareness and understanding of IPR among research scholars.

iv) Procedure:

The questionnaire was administered electronically via Google Forms and distributed to a sample of 100 research scholars identified through purposive sampling. Participants were invited to complete the questionnaire within a specified timeframe of 8 days.

v) Response Rate:

Out of the 100 questionnaires distributed, 71 responses were received within the stipulated period, resulting in a response rate of 71%.

vi) Ethical Considerations:

Ethical principles were adhered to throughout the research process, including informed consent from participants, confidentiality of responses, and protection of participants' privacy rights.

Data Analysis and Interpretation:

Quantitative data obtained from the questionnaire responses were analyzed using appropriate statistical techniques to identify patterns, trends, and associations within the dataset. Descriptive statistics were employed to summarize participants' responses across different dimensions of awareness regarding Intellectual Property Rights. The analysis done on the basis of dimensions are discussed below :

1. What is your understanding of the term "Intellectual Property Rights (IPR)"?
71 responses

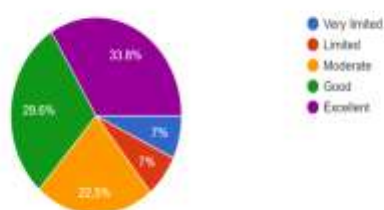


Fig. 1 : Understanding of the term Intellectual Property Rights (IPR)

The above figure shows that 33.8 % research scholars have excellent understanding of the term Intellectual Property Rights (IPR) whereas 29.6% research scholars have good understanding, 22.5% research scholars have Moderate

understanding, and 7% research scholars have limited and very limited understanding of the term Intellectual Property Rights (IPR).

2. Please select the types of intellectual property you are familiar with:
71 responses

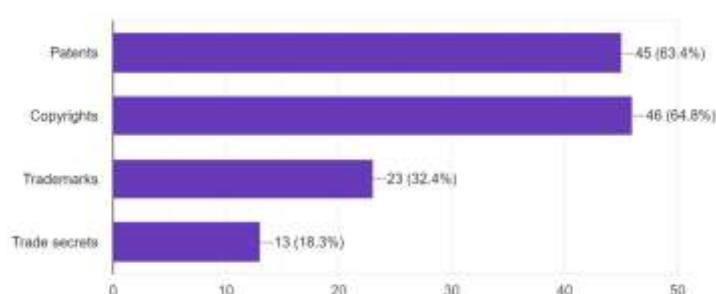


Fig. 2 : Awareness on Intellectual property rights on the base of kinds.

The above figure shows that 63.4% research scholars are aware about patents, 64.8% of research scholars are aware about copyrights, 32.4% research

scholars are aware about trademarks and 18.3% research scholars are aware about trade secrets.

3. How important do you think IPR protection is for academic research?
71 responses

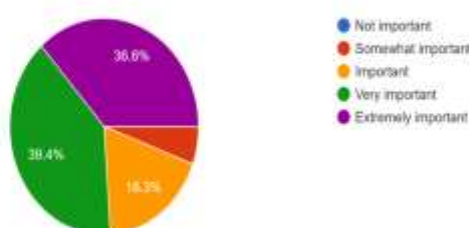


Fig. 3 : IPR protection for academic research.

The above figure shows that 36.6% research scholars think that IPR protection is extremely important for academic research, 39.4% of research

scholars that IPR protection is very important for academic research and 18.3% that IPR protection is important for academic research.

4. Are you aware of the potential implications of not adequately protecting intellectual property in your research work?
71 responses

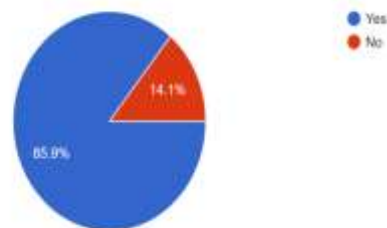


Fig. 4 : Potential implications of not adequately protecting intellectual property in research work.

The above figure shows that 85.9% research scholars are aware of the potential implications of not adequately protecting intellectual property in

research work whereas 14.1% research scholars are unaware of the same.

5. Have you ever encountered issues related to intellectual property rights in your research projects?
71 responses

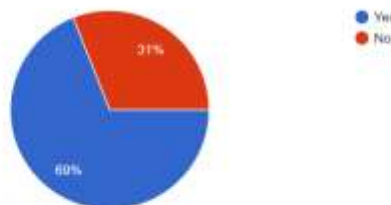


Fig. 5 : Issues related to intellectual property rights in research projects.

The above figure shows that 69% research scholars encounter issues related to intellectual

property rights in research projects whereas 31% research scholars are unaware of the same

6. Do you have access to IPR-related resources (e.g., databases, guidelines, workshops) within your institution?
71 responses

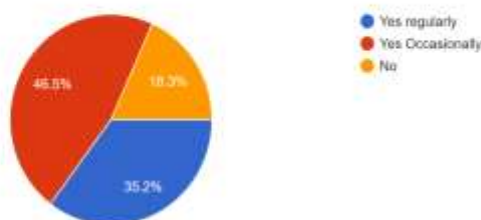


Fig. 6 : Access to IPR-related resources within the institution.

The above figure shows that 46.5% research scholars have access to IPR-related resources within their institution, 35.2% research scholars have occasional access to IPR-related resources within

their institution whereas 18.3% research scholars don't have any access to IPR-related resources within their institution.

7. How satisfied are you with the availability of IPR-related resources in your institution?

71 responses

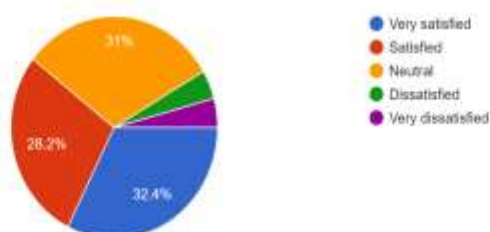


Fig. 7 : Satisfaction with the availability of IPR-related resources in the institution.

The above figure shows that 32.4% research scholars are very satisfied with the availability of IPR-related resources in their institution, 28.2% research scholars are just satisfied with the availability, 31% are neutral whereas 8.4% research scholars are dissatisfied with the availability.

8. Have you ever attended any workshops or training sessions on intellectual property rights?

71 responses

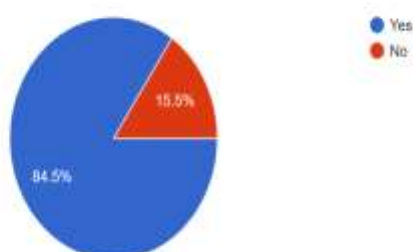


Fig. 8 : Workshops or training sessions.

The above figure shows that 84.5% research scholars have attended the Workshops or training sessions related to IPR whereas 15.5% did not attend any.

9. In your research work, how often do you consider intellectual property issues such as citing sources, obtaining permissions, or patentability?

71 responses

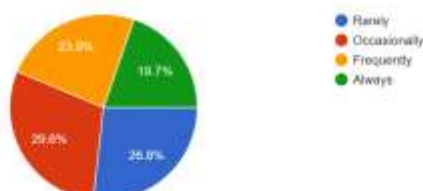


Fig. 9 : Consideration of intellectual property issues in research work.

The above figure shows that 19.7% research scholars always consider intellectual property issues in their research work, 23.9% frequently, 29.6% occasionally, and 26.8% research scholars rarely consider intellectual property issues in their research work.

10. Have you ever filed for a patent or copyright for your research work?

71 responses

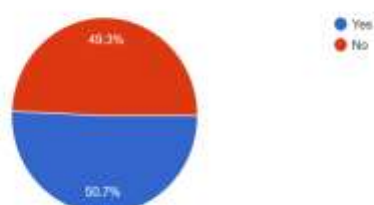


Fig. 10 : Patent or copyright for research work.

The above figure shows that 50.7% research scholars have filed for a patent or copyright for their research work while 49.3% research scholars have not filed.

11. What is your opinion on the fairness of intellectual property rights protection?

71 responses

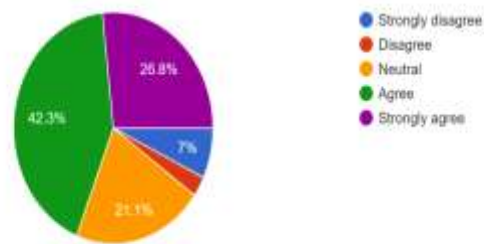


Fig. 11 : Opinion on the fairness of intellectual property rights protection.

The above figure shows that 26.8% research scholars strongly agree that protection of intellectual property right is fair, 42.3% agree the same, while

21.1% research scholars have neutral opinion about it and 7% research scholars strongly disagree

12. How do you perceive the balance between protecting intellectual property rights and promoting the sharing of knowledge in academia?

71 responses

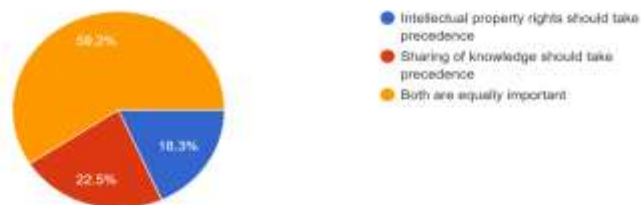


Fig. 12 : Perception of the balance between protecting intellectual property rights and promoting the sharing of knowledge in academia.

The above figure shows that 18.3% research scholars think that Intellectual property rights should take precedence. 22.5% research scholars think that Sharing of knowledge should take

precedence while a large population of research scholars i.e - 59.2% thinks that Both are equally important.

13. Do you believe intellectual property rights encourage or hinder innovation?

71 responses

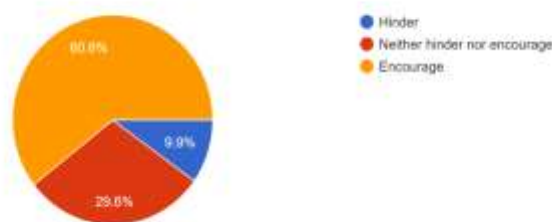


Fig. 13 : Intellectual property rights as an encouragement or barrier in innovation.

The above figure shows that 60.6% research scholars think takes Intellectual property rights as encouragement while 20.6% research scholars are

neutral about it and 9.9% think that it is a hinderance in innovation.

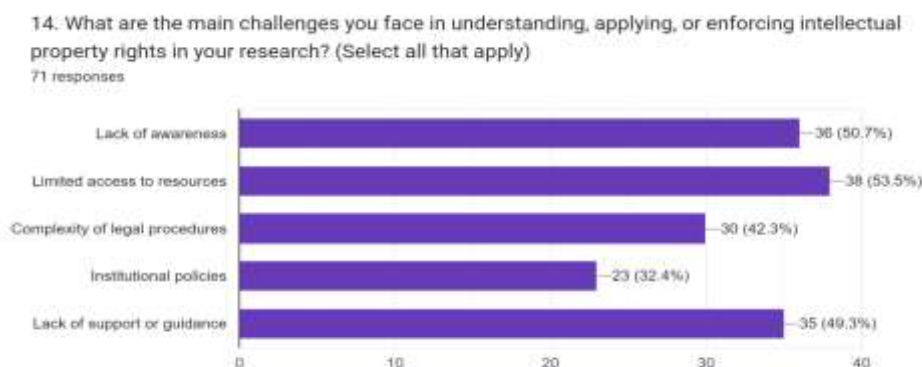


Fig. 14 : Challenges in intellectual property rights in the research.

The above figure shows that 50.7% research scholars lack awareness in understanding, applying, or enforcing intellectual property rights in their research, while 53.5% research scholars have Limited access to resources, 42.3% are troubled by the Complexities of the legal procedures. 32.4% research scholars find institutional policies as a challenge and 49.3% research scholars face lack of support and guidance in enforcing intellectual property rights in their research

Conclusion:

Through the utilization of purposive sampling and a structured questionnaire, this study aimed to investigate the awareness of Intellectual Property Rights among research scholars across various dimensions. The findings of this research endeavor are expected to contribute valuable insights to the existing literature and inform efforts aimed at enhancing awareness and understanding of IPR among scholarly communities.

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Shaikh Sara Nazneen



An Analysis of Legal Complexities: Artificial Intelligence's Contribution to Patent Law Difficulties in the Machine Learning Era

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Abstract:

The present study investigates the legal implications of artificial intelligence (AI) in the context of patent law, with a particular focus on pragmatic applications and technological advantages. In the complex field of AI and ML, it highlights how important it is to identify and remove interconnections between data items, enable parallel processing, and prevent idle times. Laws pertaining to AI-related patents have been created as a result of the significant influence that the development of AI has had on patent law. This paper investigates the challenges in securing patents for artificial intelligence (AI) related discoveries, with an emphasis on problems pertaining to inventor identification and patent eligibility. Intellectual property concerns, concerns about bias and equity, and the necessity of regulation and governance are all examined in this study. The importance of data privacy, trade secrets, patents, and copyright in preserving the advancements in AI and ML is emphasized throughout the text. In order to properly maintain the balance between innovation and user safety, regulatory frameworks are crucial, as the article emphasizes. In addition to the proposed AI regulatory framework, it incorporates concepts from Indian case law.

Keywords: Artificial Intelligence, Machine Learning, Intellectual Property Law, Liability, Accountability, Prejudice, Equity, Regulation, and Administration.

Introduction:

Patent law has been faced with unprecedented challenges as a result of the changing terrain of technical breakthroughs and the integration of AI and ML into numerous areas. Examining the legal ramifications of artificial intelligence (AI) in navigating patent law issues in the ML era, this paper focuses on useful applications and technological advances that solve current issues. The capacity to recognize and eliminate relationships between data items is one of this system's noteworthy benefits. Given the complexity of data interdependencies in AI and ML, this capability becomes essential. By breaking the linkages between data items, the system improves throughput and efficiency and allows for parallel processing within the information system. A technological advantage of the system is its method of eliminating links while maintaining the values of the data items and their relationships. By enabling network devices to handle data successfully, this preservation lessens the detrimental effects of incorrect or missing data pieces on system performance as a whole. The information system will run well if downtime and bottlenecks are avoided. The developments in ML technologies patent law have a significant impact on the legal ramifications of artificial intelligence (AI). The disclosed system tackles issues with dependency

identification, data processing efficiency, and maintaining data relationships and values through the use of an inventive data ingestion device. In addition to improving information systems' general performance, this offers a solid framework for overcoming obstacles related to patent law in the age of machine learning. In order to effectively safeguard intellectual property rights in this quickly evolving technological world, the convergence of AI, ML, and patent law will need to be continuously examined and adjusted as the legal landscape changes.

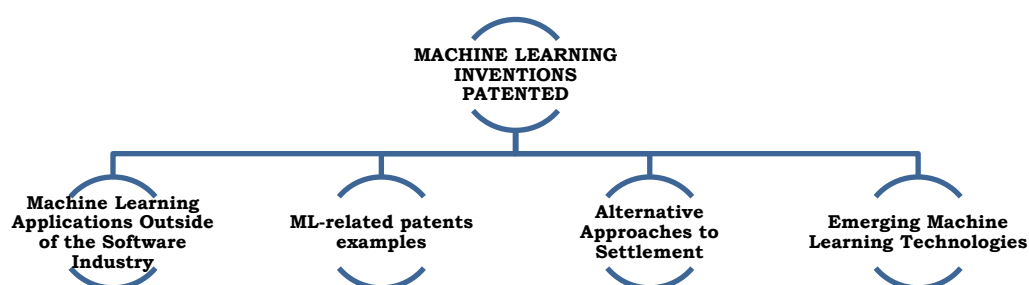
1. Artificial Intelligence And Patent Law

Artificial intelligence (AI) has grown to be a major technical development that is changing all facets of human life and helping to reorganize society. AI-related patent restrictions were developed in 2022 as a result of the technology's rapid advancement and how it interacts with the law. AI has its roots in computer science, but its main driving factor has been the real-world applications of learning algorithms in business. Emulation of "human-like intelligence" has given way to the development of robots for specialized commercial applications. AI devices installed in appliances like refrigerators, thermostats, and vacuum cleaners are revolutionizing people's daily life. People regularly avoid traffic to get to work on time, and artificial

intelligence is also used in cars, bots, and navigation systems on the internet.

AI applications in medicine have produced more accurate diagnoses and more individualized therapies. The development of driverless cars is a prime example of how AI improves productivity and safety. But AI also carries with it social challenges, like technological unemployment, the replacement of human judgment, and privacy concerns that raise important moral questions. Computing systems that possess artificial intelligence (AI) capabilities are referred to as such. With 40% of all AI-related patents, machine learning is advancing significantly. Leading academic institutions make significant investments in AI research, and deep learning and neural networks are transforming machine learning. Large tech companies such as Google, Facebook, IBM, Amazon, Microsoft, Apple, and Google invest a lot of money in researching AI applications because they believe these applications will be essential to their success in the future. Patent eligibility and inventorship have come under scrutiny because of the surge in AI patent applications. In resolving disputes over inventorship, respectable organizations such as patent offices and courts are essential because they employ rigorous inspection procedures to guarantee that only bona fide inventors are given recognition and protection for their creations. Because the applicants failed to identify a living inventor, the "European Patent Office" (EPO) initially denied two patent applications (EP 18275163 and EP 3563896). There is much discussion in the ensuing appeal about the ethics and legality of exclusive authorship of a human invention.

2. Machine Learning Inventions Patented



AI and ML technology is being used and developed by a wide range of cutting-edge businesses, including those outside of the traditional software industry, as well as by specialized Silicon Valley software companies. Organizations that don't deal with software has to have a clear strategy for developing and applying machine learning technologies as well as for producing intellectual

The general public appears to concur that current AI capabilities do not currently include the potential for innovation, according to a recent USPTO public survey. A number of participants expressed the opinion that existing AI lacked the uniqueness and creativity necessary for independent writing and invention. The role of a human inventor in developing AI breakthroughs cannot be completely ruled out, according to the "International Association for the Protection of Intellectual Property" (AIPPI) in response to the consultation. A patent application may require a detailed explanation of AI breakthroughs due to their complex algorithms and data-driven methods. Artificial intelligence-related privacy concerns have also given rise to ethical issues. More information about a person's life is available online than through self-revelation, as technology is developing to track every aspect of a person's existence. Though at the expense of people, data is a source of immense riches for businesses. Due to the fact that it influences decisions, regulates behavior, and hollows out the promise of democracy, it causes serious concerns and consequences. Loss of privacy is frequently outweighed by the advantages of information, communication, and technology. On April 21, 2021, the European Commission proposed the EU AI Regulation (also known as the "AI Regulation"). Its goal is to safeguard EU citizens' rights and welfare in the face of AI's rapid advancement by offering a comprehensive framework to regulate the introduction of potentially harmful AI systems.

property based on these breakthroughs. Non-software firms might not have much experience patenting AI-related discoveries, despite the fact that a number of well-known software corporations have been granted patents for these technologies for more than a decade.

Machine Learning Applications Outside of the Software Industry:

A San Francisco-based biochemical discovery company called Atom smart is one example of a business that uses machine learning (ML) technology but is not in the software sector. Atom Net, Atom Wise's deep learning computer, addressed significant, practical issues with developing insecticides. The research team at Atom Wise used deep learning to simulate millions of molecules and find the ones that work well as pesticides without endangering people or other beneficial species. Millions of chemicals could not be simulated with traditional research methods. Thanks to this method, Atom smart has been able to produce safer pesticide products faster than the competition. ML systems have the advantage of rapid iteration.

Compared to humans, machines are significantly faster in producing and analyzing samples. Prior to experiencing success with Dilbert, Scott Adams, the man behind the character, experienced a string of disappointments. It took a lot of time for Adams to make adjustments. By applying a cartoon-generating machine learning algorithm, this may be completed much more quickly. Likewise, Atom Wise's quick iteration in insecticide development allowed it to outperform competitors that relied on more traditional approaches. Remarkably, there has been and undoubtedly will continue to be a substantial surge in the filing of patent applications for machine learning systems. Two types of innovative machine learning (ML) advancements could be eligible for patents: (1) ML applications that address particular problems in the industry; or (2) ML technologies.

Alternative Approaches to Settlement:

An innovative solution to a problem may be eligible for patent protection based on the industry in which a non-software corporation operates by consulting the "Diamond v. Diehr case."¹⁰ The legitimacy of U.S. Patent No. 4,344,142, entitled "Direct digital control of rubber molding presses," awarded to James R. Diehr, a resident of Troy, Michigan, was at the center of the Diamond v. Diehr case. The Supreme Court held that the potential to get a patent for the entirety of the invention did not cease to exist while overseeing the implementation of a tangible technique via the use of computer software. The physical method or the computer program may be the invention's distinctive feature. According to the Diamond v. Diehr precedent, the use of trained neural networks to regulate the synthesis of chemicals, biological substances, or medicinal compounds may be eligible for patent protection. "U.S. Patent No. 8,478,535," which was filed on December 30, 2005, and awarded on July 2, 2013, went to Nebojsa Jojic of Redmond, Washington. Systems and Methods That Use ML

Algorithms to Simplify AIDS Vaccine Cocktail Assembly is the working title of the article that was submitted with the patent application, which was intended to counteract rapidly evolving viruses in reaction to the human immune system.

Emerging Machine Learning Technologies:

Patent applications on machine learning inventions created by employees can also be submitted by non-software companies. Various machine learning technologies may be required to solve different problems. When faced with a novel machine-learning challenge, software developers frequently turn to rehashing existing approaches and technologies. If the problem is with cat faces, for example, a human facial recognition model might be retrained on them. But the effectiveness of this isn't always assured. There may be a solution in replacing human traits with cat ones. On the other hand, it might be more difficult to replace human faces with intricate molecules.

Modifications could involve:

- a) a distinct feature vector or additional information that the neural network has examined
- b) distinct data sets that are utilized to train the neural network
- c) an alternative architecture for the actual neural network

Instead of using computers to solve problems in other areas, the patentability of novel machine learning algorithms may depend on advancements in computer science. For example, instead of using an outdated neural network to control the rubber-curing process, the new neural network may be incorporated into the method. It is likely that certain technologies, such as mathematical and non-technological business algorithms, are not eligible for patent protection. Examples of such technologies are internal computer computations and investment risk hedging strategies, which neither influence nor are impacted by the computer's external performance. A computer's total performance is influenced by its CPU, GPU, memory architecture, and data structure. Machine learning and artificial intelligence are rapidly becoming into disruptive technologies across a wide range of industries. Businesses of various kinds, from the biggest conglomerates to the newest Startups, are interested in software patents pertaining to artificial intelligence and machine learning. But lately, there has been disagreement over the extent of what can be patented. Regulations defining what can and cannot be protected in AI and ML have been released by the USPTO. However, machine learning (ML) is the process of teaching a computer to anticipate and enhance its own actions and computations without the need for human intervention.

ML-related patents examples:

A patent for a drone with a flying display that can identify a person by scanning their hands, eyes, and face was recently granted to Samsung. The patent provides a detailed description of the camera as a data transmission system that answers to the main control unit. It functions as a sufficient input as a consequence. Still, there is the matter of whether or not to use it. It is widely believed that the primary goal of this technology may have something to do with the advertising industry, specifically showing people customized adverts when they are traveling through cities.

The environment is continuously being observed by smart speakers. Alexa may now be activated by your preferences in addition to a trigger phrase thanks to a recent patent from Amazon. Alexa will recognize phrases that have a high semantic relevance, according to the patent. As in "I have a strong affinity for Italian cuisine." The clever speaker will analyze this data and utilize it to personalize adverts whenever the word "love" is mentioned. Advertisement's advertising Italian food may appear in the near future.

3. Accountability As Well As Liability

Liability and duty are important factors to consider while using AI and ML systems in India. It becomes more difficult to assign responsibility and determine the legal personality of AI entities when various technologies are combined. Investigating the problems of legal accountability and responsibility in AI and ML systems is the goal of this section. One of the biggest challenges is figuring out who is responsible for harm or unintended outcomes caused by AI systems. When artificial intelligence (AI) systems operate autonomously or make decisions without human input, traditional legal frameworks might not be able to assign responsibility. Whether or not AI creatures should be given legal personhood has become a topic of dispute when it comes to assigning rights and obligations to non-human entities.

Liability and its consequences under Indian law were clarified by seminal rulings in cases such as "LIC of India v. Consumer Education and Research Centre (1995)"¹⁸. Applying the doctrine of vicarious liability, the Indian Supreme Court decided that insurance companies might be held accountable for the misbehaviour of its representatives. The necessity to hold companies accountable for the actions of their agents and technology is underscored by the fact that this case does not deal with AI systems. It is feasible to use a multifaceted approach to making accountable decisions. Clearly defined standards and guidelines for the development and manufacture of AI systems can enhance the technology's security and reliability.

Systems for allocating accountability for AI system malfunctions to the many stakeholders engaged in development, deployment, and upkeep might be developed, taking into account factors like oversight, predictability, and negligence. By putting legal frameworks in place, responsible AI development and application may be encouraged. It may be necessary for organizations to maintain records of the AI algorithms and data they use, conduct regular audits, and set up procedures to monitor and correct any biased or discriminatory outcomes. Through encouraging transparency and accountability and making sure that the appropriate parties are held accountable for the effects of AI systems, such approaches may enhance the legal frameworks surrounding responsibility.

4. Intellectual Property

In India, intellectual property is crucial when it comes to employing AI and ML technology. New legal issues about ownership, protection, and infringement arise from the creation and application of innovative algorithms, databases, and AI-generated products. In the world of AI and ML systems, copyright is an essential component of intellectual property. Indian case law offers useful advice on how to protect your computer-generated works against piracy. One such case is "Ferid Allani v. Union of India case (2014)". A strong patent system is necessary to safeguard advances in artificial intelligence and machine learning. Even while AI models and algorithms are not patentable in and of themselves, innovations that use ML and AI to solve technical problems might be.

Businesses developing AI and ML systems should carefully consider whether or not their discoveries meet the requirements for patentability in India, including factors like originality, inventiveness, and industrial use. Because they grant creators exclusive rights, patents promote additional research and investment in artificial intelligence and machine learning. Trade secrets protect important datasets, proprietary knowledge, and AI and ML techniques. Businesses must safeguard their confidential data because they cannot afford to lose their competitive edge. Tough contractual clauses, confidentiality agreements, and internal security protocols must all be used to safeguard trade secrets in AI and ML systems.

Artificial intelligence and machine learning systems that employ external data have additional intellectual property issues because using copyrighted datasets illegally could lead to legal action and infringement claims. Enterprises should take proactive steps to protect their intellectual property in order to navigate the complex world of IP in AI and ML systems. Achieving this can be done by doing extensive due diligence, pursuing appropriate registrations, and setting internal policies.

5. Ethnicity And Justice

The combination of AI and ML technology raises concerns around equity and prejudice. Artificial intelligence (AI) algorithms have the capacity to maintain and strengthen preconceptions and disparities because they are designed to make predictions by examining patterns and correlations in training data. This could lead to biased outcomes in areas like loan approvals, criminal justice systems, hiring practices, and prospect availability. Clear guidelines must be established by legal frameworks in order to identify and eliminate bias in AI and ML systems. Companies utilizing AI systems ought to carry out in-depth evaluations of bias and put safety measures in place to guarantee equitable algorithmic decision-making procedures. This entails enhancing openness, enabling people to contest algorithmic judgments, and holding accountable those who engage in bias and discrimination.

The ethical and legal issues posed by prejudice in AI and ML systems are explored in depth in Indian case law. For instance, the *K.S. Puttaswamy case* and *Google India Pvt. Ltd. v. Visaka Industries Limited (2017)* emphasized the significance of equity and the absence of bias in AI systems. A more diverse and inclusive approach to developing and deploying AI and ML technologies is essential for ensuring social fairness and minimizing bias. This includes increasing the diversity of the people working on AI projects, including many perspectives in the development of algorithms, and regularly testing and overseeing systems to root out and correct for any discriminating or unfair outcomes.

Legal frameworks ought to encourage the collection of diverse and comprehensive data sets in order to ensure fairness and avoid the marginalization or exclusion of specific groups of people. Companies that use AI and ML systems that exhibit discriminatory behavior should be held accountable and their systems must be evaluated and corrected based on clear standards.

6. Governing And Regulating

Strong legislative frameworks are required for the widespread deployment and usage of AI and ML, as these technologies are growing in popularity in India. The absence of specified regulations and standards for AI and ML systems in the country's principal statute, the Information Technology Act of 2000, creates possible legal confusion and concerns. To address this issue and ensure the transparent, accountable, and moral application of AI across all industries, the Indian government has put up a framework for regulations pertaining to artificial intelligence. It's unclear, though, how efficiently it manages intricate legal matters. To successfully regulate AI and ML systems, a balance between user safety and innovation promotion must be struck.

Regulation frameworks ought to promote moral innovation and guard against hazards including discrimination, data breaches, and arbitrary decision-making. There should be precise guidelines and procedures in place to determine who is to blame and how responsibility is to be upheld when AI systems cause harm or violate moral or legal requirements. It is recommended that the Indian government create comprehensive regulatory frameworks that tackle the issues raised by AI and ML. This will necessitate close collaboration between legislators, legal professionals, business representatives, and civil society organizations, while also allowing for the swift adaptation of new developments in technology. Cases from the highest court in India, like "*Sabu Mathew George v. Union of India (2018)*",²² demonstrate the importance of the legal system in defending people's rights in the digital age and the necessity of strong data privacy legislation.

7. Authoritive Aspects

The extensive application of AI and ML technologies in India raises a number of ethical questions, with "transparency, fairness, explainability, and accountability" being key ones. Since the development and application of AI systems may result in concerns about bias, discrimination, and unfair outcomes, transparency is crucial. "Explainable AI," in which the algorithms provide concise justifications for their conclusions, may lead to increased trust and the ability for end users to evaluate the fairness and dependability of the algorithms. Fairness is especially important since AI systems' inadvertent perpetuation of bias and prejudice could lead to unfair treatment and negative social effects. It is crucial to find and remove biases in algorithms in order to stop AI systems from making social injustices worse.

The application of ethical standards and norms may facilitate the development and implementation of AI and ML technologies in a more equitable manner. The ability of AI and ML systems to explain their conclusions in highly sensitive domains like banking, law enforcement, and healthcare is very crucial. It should be possible for people who are negatively impacted by AI decisions to view the reasoning behind them and, if needed, contest them. Laws should protect people's right to an explanation, and artificial intelligence (AI) systems ought to be designed to give stakeholders and those who will be impacted worthwhile explanations.

Accountability is a basic ethical principle that should be included in governance and regulatory frameworks for AI and ML. Accountability for decisions made and results achieved should be extended to all parties engaged in the creation, manufacturing, and application of AI systems. Clear guidelines and processes are essential

in the rapidly developing fields of artificial intelligence and machine learning. High-profile case studies, such as India's Aadhaar effort, have shed light on ethical decision-making in artificial intelligence and machine learning.

8. Conclusion:

This research has looked at the legal implications of applying ML and AI in various contexts. Among the subjects that this literature review has highlighted are legal issues, accountability, culpability, transparency, and intellectual property challenges. The findings demonstrate that a strong legal framework is required to manage the risks and features of AI systems. Important topics of research have been highlighted, including algorithmic responsibility and fault attribution in AI cases. Furthermore, the importance of the Personal Data Protection Act is highlighted by the review's emphasis on AI and ML. The regulations pertaining to consent, privacy, and data protection need to be thoroughly examined and modified in order to take into consideration the special qualities of AI systems.

AI-generated innovations impede efforts to promote innovation and safeguard artists' rights due to its consequences for copyright, patenting, and trade secrets. Beyond that, the study emphasizes the need to address algorithmic bias and ensure fairness and non-discrimination in AI systems. Reducing bias and promoting ethical data collection and algorithm design are crucial tactics for creating trustworthy and equitable AI systems. And finally, while developing and deploying AI and ML systems, ethical considerations are critical. AI systems must be in line with social norms and values, as well as ethical frameworks and principles, in order to ensure responsible and ethical AI actions.

Overall, this paper is a fantastic resource for learning about the current state of our knowledge on the legal implications of artificial intelligence and machine learning. The results of the literature evaluation lay the groundwork for further research and allow for a more thorough examination of the legal challenges and potential solutions in the Indian context. Efforts to address these issues would be very helpful in facilitating the appropriate and good incorporation of AI and ML technology into society.

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Experimental Study on Potential of Flyash in Soil Stabilization

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Abstract:

The present investigation explores the effectiveness of fly ash as a stabilizing agent by an analysis of its influence on soil consistency limits, compaction behavior, and strength characteristics. The study demonstrates notable reductions in the liquid limit and plasticity index of soil as the amount of fly ash replacement increases (3%, 6%, and 9%), as observed through Atterberg limit tests conducted in accordance with the IS 2720 criteria. The liquid limit exhibits a continuous decrease as the replacement of fly ash increases, with greater replacements leading to more significant declines. Likewise, the plastic limit decreases as the percentage of replacement increases, though it shows variations. It is worth noting that there exists a negative correlation between the concentration of fly ash and the plasticity of soil, with the most significant decrease recorded at a fly ash content of 9%. In addition, compaction tests done in line with IS requirements indicate significant alterations in compaction properties when fly ash is added. Increase in fly ash proportions leads to an apparent rise in the maximum dry density of soil-fly ash combinations. Furthermore, the present study investigates the strength characteristics of soil stabilization through the utilization of varying quantities of fly ash (3%, 6%, and 9%). The findings demonstrate notable improvements in both compressive and shear strength as a result of using fly ash.

Keywords: Flyash, Clay, Strength, Compaction, Consistency, Soil

Introduction:

Soil stabilization is a crucial technique employed in the field of civil engineering and construction with the objective of improving the engineering characteristics of soil in order to satisfy the demands of infrastructure endeavors. The utilization of raw materials in the process of soil stabilization presents numerous benefits, such as cost-efficiency, preservation of resources, and mitigation of environmental consequences. This strategy promotes sustainability and contributes to the circular economy by recycling industrial outputs that would otherwise be disposed of as waste. One of the most abundant industrial byproducts, millions of tons are produced annually. Thermal power plants produce fine, powdery fly ash from coal burning. Fly ash typically contains silicon dioxide (SiO_2), aluminum oxide (Al_2O_3), iron oxide (Fe_2O_3), calcium oxide (CaO), and smaller amounts of magnesium, sulfur, and carbon, depending

on the coal type and combustion process. In particular, Das and Patra (2015) found that fly ash and soil experience pozzolanic reactions, forming cementitious compounds that improve the soil strength and reduce permeability. Researchers have found that removing fly ash from landfills and using it in construction projects can reduce greenhouse gas emissions and ease handling of garbage. According to Taha et al. (2018), sustainable construction approaches and fly ash-based soil stabilization should be widely adopted.

Soil composition: The study involved in the collection of soft clayey soil with bearing capacity of 68kPa from Chennai zone. The collection of samples occurred at a depth of approximately 1.5 meters below the prevailing ground surface. The soil was stored in a sizable polythene bag and subjected to air drying for approximately 7 days. The physical and index parameters of the soft clayey soil are presented in Table 1. The soil exhibits characteristics such as a high liquid limit, low unit weight, and high water content.

Table 2 : Flyash composition

Table 1. Physical Properties of Clayey soil

Properties	Values
Liquid Limit	65.20%
Plastic limit	43.50%
Plasticity Index	21.70%
water content	85.40%
Specific Gravity	2.54
pH	6.4
Bearing Capacity	72.5kPa

Composition	Values
Silica (SiO_2)	52.4
Alumina (Al_2O_3)	21.5
Lime (CaO)	21.2
Iron oxide (Fe_2O_3)	4.2
Sulphates (SO_3)	0.23
Magnesia	0.45
Loss of ignition	3.20%

Raw material -Fly Ash

Fly ash is a finely powdered substance primarily consisting of silica, resulting from the combustion of finely ground coal in a boiler for the purpose of generating electricity. Type I fly ash were obtained from cement plants. Table 2 provides a summary of the chemical components and physical composition of Type I. Type I fly ashes are classified as Class C ash which have finer texture and higher Ca concentration. Consequently, Class C fly ashes provide a cost-effective option as a soil stabilizing agent due to their pozzolanic properties.

Results and Discussion:

Consistency Limit

Significant novel knowledge about the effectiveness of fly ash as a stabilizing agent was obtained from the study on the consistency limits of soil stabilization with different percentages of fly ash (3%, 6%, and 9%). The addition of fly ash

resulted in significant decreases in both the liquid limit and plasticity index of the stabilized soil, as observed through Atterberg limit tests conducted in accordance with the IS 2720. Figure 1 shows the consistency limit of flyash added soil. The liquid limit are 65.2, 62, 58, 55% respectively. The liquid limit consistently drops as the fly ash replacement rises. Higher replacement percentages cause the decline to be more pronounced, suggesting that higher replacements lead to lower liquid limit limitations. The plastic limit of 0,3,6,9 % flyash replaced with soil are 43.5,42, 37, 35%. As replacement percentages rise, the plastic limit decreases, much like the liquid limit does. As the replacement percentage rises, the decline becomes more noticeable. The plasticity index obtained for 0,3,6,9 % replaced flyash are 21.7, 20, 21, 20% respectively. In contrast to liquid and plastic limits, the changes are not as uniform.

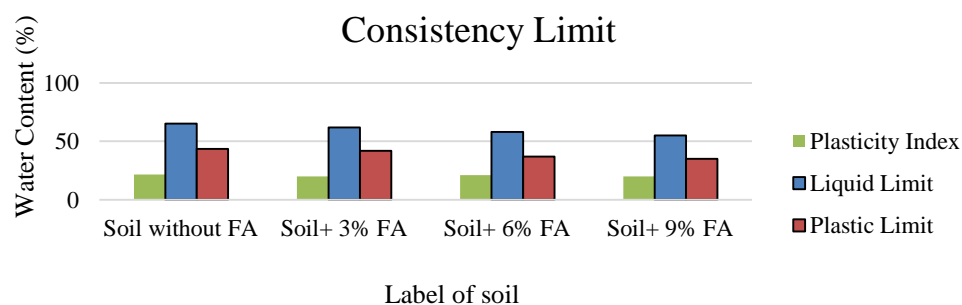


Fig 1. Consistency Limit of soil added with Flyash

In particular, an inverse relationship was detected between the increase in fly ash concentration and the decrease in soil plasticity, with the most significant loss observed at a fly ash content of 9%. The results presented in this study are consistent with prior research conducted by Zhang and Liu (2015) as well as Basha et al. (2005), which emphasize the positive impact of fly ash on soil engineering characteristics. The patterns identified in this study highlight the potential of fly ash as a viable and efficient method for stabilizing soil. It has the ability to improve stability and

decrease sensitivity to volume fluctuations in civil engineering applications.

Compaction Characteristics

The study examining the compaction properties of soil stabilization using different proportions of fly ash (3%, 6%, and 9%) provides significant findings about the influence of fly ash content on soil density and compaction behavior. The compaction characteristics of the stabilized soil were found to undergo considerable changes upon the addition of fly ash, as evidenced through standard compaction tests conducted in accordance with IS standards.

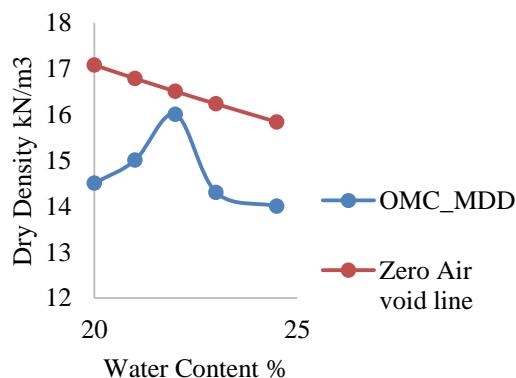


Fig 2. Compaction curve for raw soil

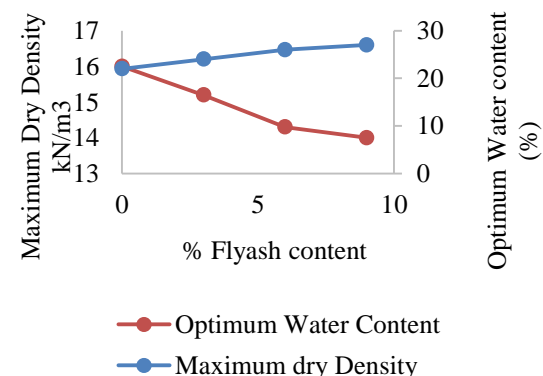


Fig 3. Compaction curve for flyash added soil

The maximum dry density of the soil-fly ash combinations exhibited a significant rise as the proportion of fly ash rises. This increase was followed by an equivalent drop in the optimal moisture content necessary for compaction. Figure 2 represents the zero air void line for raw soil. The void ratio achieves its smallest value along the zero air void line, signifying the densest packing of soil particles that can be achieved with a specific water content.

The compaction efforts can be assessed by comparing them to the zero air void line. In order to obtain optimal compaction and stability, soil densities should be as near to the zero air void line as possible. Fig 3 represents the Compaction curve of flyash added soil. The study conducted by Das and Patra (2015) examined the application of fly ash for soil stabilization, emphasizing its potential to enhance soil compaction and reduce moisture

susceptibility. They observed that the inclusion of fly ash resulted in increased densities and reduced moisture contents, suggesting enhanced compaction properties.

Strength Characteristics:

Research studies investigating the strength properties of soil stabilization using different proportions of fly ash (3%, 6%, and 9%) have yielded significant findings about the effectiveness of fly ash as a stabilizing agent. The influence of fly ash and lime on the strength characteristics of expansive soil was explored in a study conducted by Li et al. (2018). The research conducted revealed that the incorporation of fly ash resulted in notable enhancements in both the compressive strength and shear strength of the soil after stabilization. Figure 4 shows the unconfined compression test results on flyash added soil.

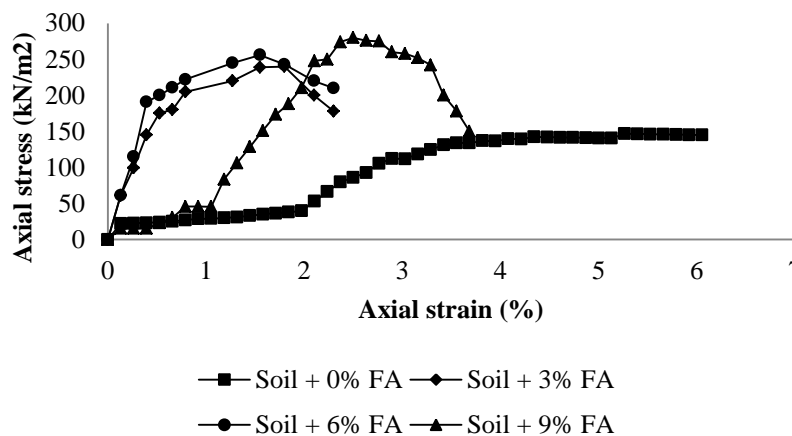


Fig 4. UCC for Flyash added soil

In a comparable manner, Sharma et al. (2019) conducted a series of tests to assess the effectiveness of fly ash-soil mixes in the context of soil stabilization. Their findings revealed that the strength properties of the soil improved as the fly ash concentration increased. The aforementioned research provides insight on the favorable influence of fly ash on the mechanical characteristics of stabilized soil, suggesting its potential as a viable and efficient approach for enhancing soil stability in civil engineering applications (Li et al., 2018; Sharma et al., 2019).

Conclusion:

The study analyzed the consistency limits of soil with varying percentages of fly ash replacement. The liquid limit consistently decreased as the fly ash replacement percentage increased, with higher replacements leading to more pronounced declines. Similarly, the plastic limit decreased as the replacement percentage rose, with a more noticeable decline at higher replacement percentages. The plasticity index generally decreased with higher replacement percentages,

although it exhibited some fluctuations unlike the liquid and plastic limits.

The consistency of soil-fly ash combinations is subject to various parameters, including the proportion of fly ash included and the distribution of its particle sizes. In general terms, a rise in the proportion of fly ash typically leads to changes in the consistency of the mix, resulting in a decrease in plasticity index.

The compaction parameters of the soil mixture are influenced by the addition of fly ash. It is done to get the required density and strength by reducing the presence of voids within the soil mass. Adding fly ash affected the optimum moisture content and maximum dry density, which in turn affects the amount of compaction needed to achieve the necessary engineering characteristics.

The strength properties of soil-fly ash mixes are dependent upon several parameters, such as the proportion of fly ash, the conditions under which curing takes place, and the type of soil being used. Although fly ash has the potential to enhance certain engineering features, such as compressive strength,

its impact on the overall strength characteristics of the mixture can exhibit variation.

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Integration of Internet of Things (IoT) and Artificial Intelligence (AI) in the Medical Sector: A Comprehensive Review

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Abstract:

The integration of the Internet of Things (IoT) and Artificial Intelligence (AI) is fundamentally transforming the medical sector, providing ground-breaking improvements in patient care, diagnosis, treatment and overall healthcare management. This research paper conducts a thorough review of the multifaceted applications, tangible benefits and inherent challenges associated with the amalgamation of IoT and AI within the medical domain. It delves into how IoT devices when synergized with AI algorithms, facilitate real-time health monitoring, enable predictive analytics for foreseeing health issues, personalize medicine to suit individual patient needs and bolster decision-making processes for healthcare professionals. The paper does not shy away from addressing the critical ethical, privacy and security concerns that accompany the deployment of these advanced technologies in sensitive healthcare environments. It offers a detailed exploration of these issues and presents thoughtfully considered strategies for mitigating risks and enhancing the responsible use of IoT and AI in medicine. Furthermore, this paper looks ahead, speculating on the future directions and potential developments in the field, emphasizing how continuous advancements in IoT and AI technologies could further reshape healthcare delivery and medical research. Through a comprehensive analysis, the paper aims to highlight the significant, transformative potential of integrating IoT and AI into healthcare, offering insights into how this fusion can lead to more efficient, effective and personalized medical care thereby paving the way for a new era in healthcare innovation.

Keywords: Internet of Things (IoT), Artificial Intelligence (AI), Medical Sector, Patient Care, Real-time Monitoring, Predictive Analytics, Personalized Medicine, Ethical Concerns, Privacy, Security.

Introduction:

In recent years, the integration of Internet of Things (IoT)[1] and Artificial Intelligence (AI)[2] technologies has garnered significant attention in the medical sector[3], offering transformative potential for healthcare delivery, patient care, and medical research. This comprehensive review aims to delve into the intersection of IoT and AI in the medical domain, exploring their applications, benefits, challenges, and future prospects.

Background:

The medical sector [4] faces numerous challenges, including the rising prevalence of chronic diseases, aging populations, increasing healthcare costs, and growing demand for personalized and efficient healthcare solutions. Traditional healthcare systems often struggle to meet these challenges due to limitations in data collection, analysis and decision-making processes. However, the emergence of IoT and AI technologies presents new opportunities to address these

challenges effectively. IoT devices, such as wearable sensors, medical implants, and smart medical devices, enable real-time monitoring of patient health metrics, remote patient care, and data-driven insights into disease management. On the other hand, AI algorithms, including machine learning and deep learning models, can analyse vast amounts of healthcare data, extract actionable insights, and support clinical decision-making, diagnosis and treatment optimization.

The convergence of IoT and AI in the medical sector promises to revolutionize healthcare delivery by enabling personalized medicine, predictive analytics, remote patient monitoring, and enhanced operational efficiency. However, this integration also poses challenges related to privacy, security, data interoperability, regulatory compliance, ethical considerations and technological limitations.

Objectives of the Study:

The main goals of this research are outlined below:

1. To provide a comprehensive overview of the applications of IoT and AI technologies in the medical sector, including remote patient monitoring, predictive analytics, personalized medicine, healthcare management, medical imaging, diagnostics, drug development and clinical trials.
2. To explore the benefits of integrating IoT and AI in healthcare, such as improved patient outcomes, enhanced operational efficiency, cost reduction, empowerment of patients and advancements in medical research.
3. To examine the challenges and limitations associated with the integration of IoT and AI in healthcare, including privacy and security concerns, data interoperability issues, regulatory hurdles, ethical implications and technological limitations.
4. To discuss future directions and opportunities for leveraging IoT and AI technologies in the medical sector, such as AI-powered medical assistants, blockchain for healthcare data security, augmented reality (AR) and virtual reality (VR) in surgery, IoT and AI for mental health, and collaborative research and development initiatives.

By addressing these objectives, this comprehensive review aims to provide insights into the transformative potential of IoT and AI in reshaping the future of healthcare delivery, patient care and medical research.

Overview of Internet of Things (IoT) and Artificial Intelligence (AI)[OIOTAI]

Healthcare IoT [HIOT]: [6-7]

This encompasses the network of connected devices, sensors and systems that gather and interpret data pertinent to patient treatment, medical equipment, and healthcare infrastructure. Wearable sensors, medical implants and smart devices capture real-time data on vital signs, medication adherence and environmental factors enabling remote patient monitoring and personalized interventions to improve patient outcomes and operational efficiency.

AI in Healthcare [AIHC]: [8]

AI in healthcare applies machine learning and deep learning techniques to analyse medical data, make diagnostic predictions, optimize treatment plans and automate administrative tasks. AI algorithms analyse electronic health records, medical images and genomic data to support clinical decision-making, enhance healthcare delivery and reduce costs by enabling early disease detection, personalized treatment and operational efficiency.

Integration of IoT and AI [IIOTAI]:

The integration of IoT and AI in healthcare [9] combines data collection capabilities of IoT devices with AI-driven analytics to enable advanced solutions such as remote patient monitoring, predictive analytics, personalized medicine and smart healthcare management. By leveraging IoT-generated data and AI-driven insights, healthcare

organizations can improve patient care, optimize workflows and enhance healthcare outcomes while reducing costs and inefficiencies.

Applications of IoT and AI in the Medical Sector [AIOTAIMS]: [10-25]

Remote Patient Monitoring [RPM]:

IoT and AI enable real-time monitoring of patient health outside traditional healthcare settings, facilitating proactive interventions, reducing hospital readmissions and improving outcomes for patients with chronic conditions or post-operative care needs.

Predictive Analytics and Early Disease Detection [PAEDD]:

IoT and AI analyse large datasets to identify risk factors, biomarkers and predictive patterns associated with diseases, enabling early detection, timely interventions and public health interventions to mitigate disease outbreaks.

Personalized Medicine and Treatment Optimization [PMTO]:

IoT and AI leverage patient-specific data to tailor treatment plans, predict treatment responses, optimize medication dosages and identify targeted therapies, improving efficacy, minimizing adverse effects and enhancing patient satisfaction.

Healthcare Management and Workflow Optimization [HMWO]:

IoT and AI automate administrative tasks, streamline clinical processes and optimize resource allocation to enhance operational efficiency, reduce costs and improve patient throughput while ensuring high-quality care delivery.

Medical Imaging and Diagnostics [MID]:

IoT and AI enhance the accuracy and interpretation of diagnostic tests by analysing medical images such as X-rays, MRIs and CT scans, enabling early detection of diseases, improving diagnostic accuracy and enhancing patient outcomes.

Drug Development and Clinical Trials [DDCT]:

IoT and AI facilitate data collection, analysis and decision-making throughout the drug development process, informing clinical trial design, patient recruitment and therapeutic interventions, ultimately accelerating medical research and improving patient care.

Benefits of IoT and AI Integration in Healthcare [BIOTAIH]:

Improved Patient Outcomes[IPO]:

IoT and AI integration enables real-time monitoring, early detection of health issues and personalized treatment plans, leading to reduced adverse events, better disease management and improved patient satisfaction.

Enhanced Operational Efficiency [EOF]:

Automation of data collection, analysis and workflow management through IoT and AI technologies streamlines administrative tasks,

optimizes resource allocation and prevents equipment downtime, resulting in improved staff productivity and reduced operational costs.

Cost Reduction [CR]:

Proactive and preventive care, optimized healthcare processes and remote patient monitoring facilitated by IoT and AI lead to cost savings through reduced hospital readmissions, emergency visits and operational expenses, benefiting healthcare providers, payers and patients.

Empowering Patients [EP]:

Wearable devices, mobile apps and virtual assistants empower patients to monitor their health, adhere to treatment plans and make informed decisions about their care. Patient portals and telehealth platforms facilitate communication with healthcare providers, improving access to care and patient engagement.

Advancements in Medical Research [AMR]:

IoT-generated data and AI-driven analytics accelerate medical research by providing insights into disease progression, treatment efficacy and population health trends. Collaborative research initiatives leveraging IoT and AI technologies drive innovation in areas such as genomics, precision medicine and personalized healthcare, leading to scientific discovery and improved patient outcomes.

Challenges and Limitations:[26]**Privacy and Security Concerns [PSC]:**

The integration of IoT and AI in healthcare raises concerns about the privacy and security of patient data. Vulnerabilities in IoT devices and the aggregation of large volumes of healthcare data increase the risk of cyber-attacks and data breaches. Robust encryption, authentication and compliance with data protection regulations are essential to safeguard patient confidentiality.

Data Integration and Interoperability [DII]:

Interoperability challenges persist due to siloed healthcare data and inconsistent standards. Investing in interoperable solutions and collaborating with industry stakeholders and standardization bodies can promote data sharing and seamless integration across healthcare systems.

Regulatory Hurdles [RH]:

Regulatory requirements for IoT devices and AI applications can delay innovation and market entry. Healthcare organizations must navigate complex regulatory landscapes while advocating for reforms to promote innovation and patient safety.

Ethical Implications [EI]:

Ethical considerations include bias in AI algorithms, patient autonomy and informed consent. Healthcare professionals must ensure the ethical development and deployment of AI systems, respecting patient autonomy and mitigating biases.

Technological Limitations [TL]:

IoT devices may suffer from reliability issues, while AI algorithms may lack robustness and

generalizability. Careful evaluation of technological capabilities and limitations is necessary to ensure successful implementation and adoption in healthcare settings.

Future Directions and Opportunities [FDO]:**AI-Powered Medical Assistants [AIMA]:**

These assistants offer personalized, efficient aid to patients and healthcare providers through natural language processing (NLP) for symptom analysis, treatment recommendations, appointment scheduling and medical documentation. They analyze medical data to enhance diagnosis and suggest evidence-based treatment options.

Blockchain for Healthcare Data Security [BHDS]:

Blockchain ensures security, privacy and interoperability in healthcare data management. It safeguards sensitive medical data, streamlines data exchange and automates processes like insurance claims processing through smart contracts, reducing administrative overhead.

Augmented Reality (AR) and Virtual Reality (VR) in Surgery [ARVRS]:

AR and VR technologies revolutionize surgical training, planning and execution by providing immersive experiences for surgeons. They improve surgical precision, shorten recovery times and enhance patient outcomes, while also serving as valuable tools for patient education.

IoT and AI for Mental Health [IOTAIMH]:

IoT devices and AI algorithms address mental health challenges by enabling early detection, personalized intervention and continuous monitoring. Wearable sensors and AI-powered algorithms detect patterns, predict episodes and deliver personalized interventions, while virtual mental health assistants provide on-demand support and counselling.

Collaborative Research and Development

Initiatives [CRDI]: Multidisciplinary collaborative initiatives drive innovation in healthcare by fostering collaboration, sharing resources and leveraging diverse expertise. These efforts accelerate the development and adoption of IoT and AI solutions, validate new technologies through clinical trials, establish regulatory frameworks and disseminate best practices to realize the full potential of IoT and AI in healthcare.

Conclusion:

The integration of Internet of Things (IoT) and Artificial Intelligence (AI) in the medical sector marks a significant milestone in the evolution of healthcare. This convergence not only heralds a new era of innovation and efficiency in medical services and research but also promises to enhance the quality of patient care dramatically. Through real-time monitoring, predictive analytics and personalized treatment plans, IoT and AI are transforming the landscape of healthcare, making it

more responsive and patient-centered. However, the journey towards fully realizing this potential is fraught with challenges ranging from privacy and security concerns to ethical and regulatory considerations. Addressing these issues requires a collaborative effort among technologists, healthcare professionals, policymakers and patients. As we move forward the focus should be on harnessing these technologies to foster a healthcare environment that prioritizes patient safety, data integrity and accessibility. With continued innovation and responsible implementation, the integration of IoT and AI in healthcare promises not only to improve patient outcomes but also to pave the way for ground-breaking advancements in medical research and healthcare delivery systems. The future of healthcare is here, and it is inherently digital, interconnected and intelligent.

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IPR Strategies for Startups and Small Businesses

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Abstract:

Intellectual property rights plays a vital role in the success and sustainability of startups and small businesses. This paper explores the key strategies that startups and small business can adopt to effectively leverage IPR for their benefit. Startups need to identify and protect their key intellectual property assets including patents, trademarks, copyrights and trade secrets. Developing a comprehensive strategy for each type of IP asset is crucial to safeguarding innovations, brand identity and confidential information. This paper includes types of intellectual property rights, and different IPR strategies for Startups and small business units and it also covers how IPR is useful for startups and small businesses.

Keywords: Intellectual property rights, sustainability, strategies

Introduction:

IPR stands for intellectual property rights. These are legal rights that protect creations of the mind or intellect, such as inventions, literary and artistic works, symbols, names, and designs used in commerce. The main types of intellectual property rights include

Patents:

Patents Protect inventions and innovations, granting the inventor exclusive rights to make, use and sell the invention for a limited period.

Trademarks:

Trademarks protect brand names, logos and symbols used to distinguish goods and services in the marketplace, ensuring that consumers can identify and associate them with a specific source.

Copyrights:

Copyrights protect works of authorship such as literary works, music, artistic creations and software code, giving the creator exclusive rights to reproduce, distribute and display the works.

Trade secrets:

Trade secrets protect confidential business information, such as formulas, processes, customer lists and techniques by maintaining secrecy and unauthorized use or disclosure.

Industrial Designs:

Protect the visual appearance of a product including the shape, configuration or ornamentation, providing exclusive rights to the design owner.

Geographical indications:

It protect indications that identify goods as originating from a specific geographical location, indicating qualities, reputation, or characteristics associated with that location.

Literature review:

Gran strand (1999) makes an early review of the research landscape relating to IP. Grandstand notices that IP had already at the end of the 1990s had a long, but tiny research tradition. This tradition was at the time fragmented in terms of different types of IPRs (patents, trademarks, copyrights, etc.) and disciplines (economics, law, management, etc.). Gran strand identifies several previous reviews of the literature, ranging all the way back to the 1950s. These are typically not related to the management of IP, but mostly concern economics and more specifically the economics of the patent system.

Hanel (2006) is the first identified review explicitly focused on management of IP. In line with the work of Gran strand, Hanel identifies the growing importance of IP management and the growing interest in the scholarly field, partly as a result of the creation of the 'Court of Appeals for the Federal Circuit' (CAFC) in the US in the 1980s. This led to a now well established growth in patenting, in turn leading to an increasingly complex landscape of IP and IPRs, and an increasing number of litigation. Research has shown that litigated patents in general have more patent claims and more citations per claim, inventions that are part of complex multi invention technologies are more likely to be part of litigation. Moreover, patents that have been enforced and proven valid are then more valuable than patents that have not been tested in court. Apart from this literature, Hanel also reviews areas in need of more research, such as the growing fields of IP valuation and securitization. Finally, Hanel identifies a number of differences in the management of IP among firms in different industries and of different sizes.

Holgersson (2013) makes a review of three different but related research streams in patent management (i.e., a subfield of IP management), namely of patent propensity, appropriation strategies, and motives to patent. These different fields of studies have each been covered by multiple research studies. The first research stream, on patent propensity, in general shows that the propensity to patent a patentable invention varies widely across industries. For example, the propensity to patent is very high within the pharmaceutical industry while considerably lower in the electronics industry. At the same time, the patent output per R&D spending may be significantly higher in the latter industry, depending on the generally larger quantity of patentable inventions in complex and multi-invention industries. Differences in patent output across industries are thus more related to technological characteristics than to strategy differences. Several studies also indicate that the patent propensity is significantly higher in large than in small firms

Objectives of the study:

1. To know the details of Intellectual property Rights and its types
2. To know the IPR strategies for startups and small businesses.

How IPR is useful to Startups and Small businesses:

Intellectual property rights are highly beneficial to startups and small businesses in several ways.

Protecting innovations:

Startups often rely on innovative ideas and technologies as their competitive advantage. By obtaining patents startups can protect their inventions and prevent competitors from copying or exploiting their innovations thereby safeguarding their market position and potential revenue streams.

Building brand value:

Trademarks are essential for startups to build brand recognition and reputation. A strong trademark can differentiate their products or services in the market, attract customers and create brand loyalty, which is crucial for long term success and growth.

Attracting investors and partnerships:

Having a solid portfolio of intellectual property assets can make startups more attractive to investors, partners and potential collaborators. Investors are often interested in startups with strong IP protection as it indicates a competitive edge and potential for future return on investment.

Creating Revenue streams:

Startups can monetize their intellectual property through licensing agreements, franchising or selling IP rights. Licensing technology or trademarks to other companies can generate additional revenue streams without requiring significant capital investment.

Preventing Infringement:

Intellectual property rights enable startups to take legal action against infringers who unlawfully use or copy their inventions, trademarks or copyrighted materials. This protection is crucial for maintaining market exclusivity and preventing revenue loss due to unfair competition.

Enhancing market position:

By actively managing and enforcing their intellectual property rights, startups can establish themselves as innovative leaders in their industry. This can attract customers who value originality, quality and reliability helping startups gain a competitive advantage and their market share.

Facilitating Business growth:

IPR strategies contribute to the overall growth and sustainability of startups by providing a framework for protecting all leveraging their intangible assets. With a clear understanding of their intellectual property rights. Startups can make informed decisions, mitigate risks and capitalize on opportunities for business expansion and development.

IPR Strategies:

These intellectual property rights play a crucial role in fostering innovation, creativity and economic growth by incentivizing creators and inventors to invest time, efforts and resources into developing new ideas and products while ensuring fair competition and protection against unauthorized use of infringement. Intellectual property right strategies are crucial for startups and small businesses to protect their innovations, products and brands. here are some key points to consider when developing IPR Strategies.

Identify and protect key Assets:

Identify your company's key intellectual property assets such as patents, trademarks, copyrights and trade secrets. Develop a strategy to protect these assets through appropriate legal mechanisms. For example file patent applications for inventions, register trademarks for brand names and logos and use copyrights for creative works.

Prioritize IP Protection:

Prioritize which intellectual property assets are more critical for your business success and focus your resources on protecting them effectively. Consider the competitive landscape, market trends and potential threats to your IP when prioritizing protection efforts.

Implement confidentiality Measures:

Implement confidentiality measure to protect your trade secrets and confidential information. This can include non-disclosure agreements (NDAs) with employees, contractors and business partners. Educate your team about the importance of keeping sensitive information confidential and establish clear guidelines for handling IP-related matters.

Monitor and enforce IP Rights:

Regularly monitor the market for potential infringements of your intellectual property rights. This includes keeping an eye on competitors, online platforms and industry developments. Take swift action to enforce your IP rights when necessary such as sending cease and desist letters, pursuing legal action against infringers or engaging in licensing agreements.

Utilize Licensing and Partnerships:

Consider licensing your intellectual property to generate revenue and expand your market reach. Licensing agreements can provide opportunities for collaborations with other businesses and industries. Explore strategic partnerships and joint ventures that involve IP sharing or co- development efforts. Ensure that IP ownership and rights are clearly defined in any partnership agreements.

Stay Informed and Adapt:

Stay informed about changes in intellectual property laws, regulations and industry best practices. Continuously update your IPR strategies to align with evolving business needs and legal requirements. Seek guidance from legal experts or IP professionals to ensure that your IPR strategies are comprehensive, compliant and effective in protecting your business interests.

Conclusion:

By developing and implementing effective IPR strategies startups and small businesses can safeguard their innovations, mitigate risks and create valuable assets that contribute to long term success and growth. Adopting proactive IPR strategies is essential for startups and small businesses to protect their innovations, build brand value, attract investments, create revenue streams, prevent infringement, enhance market position and facilitate over all business development.

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School Health Programme in Rural and Urban Areas-A Review

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Abstract:

A school is a fundamental unit of the children & a crucial role play in children's healthy lifestyle and the prevention of diseases. The strong connection between health & education. A school health programme is part of an education program through various activities for students, such as health screening, health education, supplement nutrition services, etc. The goal of school health promotion is to improve the children's and community's health status. The school health programme is linked to reducing dropouts, achieving education performance, promote students' health status. The initiative combined with the health outcome and learning outcomes. The major parts of the programme are mid-day meals, water & sanitation & hygiene in school, physical education, medical check-ups, & referral services, & a healthy environment in school, etc. These are important for children & included as part of the curriculum. The study aims to assess the effectiveness of school health programme in rural and urban areas.

Keywords: School, School Health Programme, School Health Education, Facilities, and Practices.

Introduction:

School health promotion is one of the community-based approaches and international health concepts (WHO, 1996). The government has a key role to play in health-promoting schools. Childhood age is a dynamic period of growth and development. Family, community, and school involvement and efforts to promote health for children. WHO introduced the school health programme in 1995. This initiative comprehensive health services to school children. Schoolchildren spend most of their time in school with teachers and peer groups. A school health program is a holistic development model for school children. It consists school environment, school health services, and school health facilities. Health and education are interrelationships between physical, mental, social, and environmental aspects.

Objective of the study:-

1. To understand the conceptualization of the school health programme.
2. To assess the effectiveness of the school health program in rural and urban areas.

Discussions: School health programme provide comprehensive health care services through the school such as school health policies, school physical environment, and social environment. These are related to healthy food, smoke-free, anti-tobacco, medical check-ups, vaccination, tablet distribution, school building, adequate classrooms, water facilities, toilet facilities, school grounds, and equipment, community relationships, and personal life skills.

The Gawai, et al, (2016) study conducted 2,283 children of 3rd and 4th grades municipal corporation schools in Mumbai, study found that 34.2% of children were unaware of health-related consequences. White et al, (2003) said that absenteeism due to illness was found to be a major issue in educational institutions. 98.6% of urban schools and 93.75 % of rural schools had drinking water for every 45 students (Shokri, et al, 2018). Adegbenro, (2007) said Nigerian schools had only 50% water supplies. In Odish found that only 15% of urban school children had availability of soaps in schools (Kadam et al, 2014). This study shows the lack of basic health facilities and awareness in schools. One systematic study suggested that hand-washing practices at 16% risk reduced respiratory infections (Rabie & Curtis, 2006). The assessment

of the prevalence of dental caries and oral hygiene status in rural-urban children aged 7-12 years the overall significance of dental caries was 65.5% (Babu et al, 2011). However, the prevalence of dental caries in rural areas was low because of the children's access to low-sugar, and fat-containing foods. Good oral hygiene depends on cleaning and maintaining dental. In one study conducted in Chandigarh the reason for the dental caries was found to be increasing due to deterioration in food and dietary habits (Shivakumar et al, 2011).

Physical environment refers to the school building, grounds, equipment for indoor and outdoor activities, and basic amenities such as adequate sanitation, sufficient toilets for both males and females, Safe and clean water available for drinking and hand washing, adequate garbage, disposal system, lighting adequate, classroom, comfortable temperature, wastewater treatment, and care for disturbances, which is benefit school students and their families and community. Food is essential for the full growth of the body. Green leafy vegetables, fruits, and natural resources are high rich iron and calorie-containing foods. Food insufficiency affects children's physical and cognitive development. Previous studies show insufficient nutrients impact children, poor physical function, poor health status, and negative symptoms, in academic performance and psychological well-being (Casey et al, 2001; Rose & Oliveira, 1997; Kirkpatrick & Tarasuk, 2008; Casey et al, 2005; Alaimo et al, 2001; Alaimo et al, 2001; Eisenberg et al, 2004; Murphy et al, 1998; Whitaker et al, 2006). Bae et al, (2010) cross-sectional study totalled 944 children of them 28% of children skip meals once a twice a day whereas 72.3% of children do not skip meals at all, and 93.3% do not skip lunch at the public meal. So for this reason increased malnutrition, child fraternity rates, and low education level. A systematic study in rural and urban areas found underweight 23.7%, stunting 16.6%, and thinness 25.9% in school children in rural areas compared with the urban areas 8%, 14.8%, and 6.1% (Bhargava et al, 2015).

Another study in Baroda district in Gujarat found 70% of underweight children, and 32% stunted (Bhoite & Lyer, 2011). In a study Himalayan village of Garhwal region school children were underweight, with 60.9%, 56.1% stunting, and 12.2% wast (Osei et al, 2010). Deshmukh et al, (2008) study conducted among urban-slum, rural and tribal girls in Nashik,

Maharashtra, it was found that 68.9% prevalence of anemia in tribal girls, 64.2% in urban-slum, and 62.8% among rural girls. Sharma et al, (2000) reported that weekly iron supplementation through schools and welfare centers may prove to be a more effective strategy to combat anemia in adolescent girls. Iron deficiency anemia is a serious health consider among adolescent girls. In a study from Turkey rural adolescent girls consumed less folic acid than their urban areas (Oner et al, 2006). Anemia harms adolescent girls with poor immunity and weakness. The school provides nutrient food through the lunch programme also weekly iron folic acid tablets. The Government of Karnataka implemented a milk program in 2013 in all government schools and government-aided schools. Regular physical activity reduces risk factors like cancer, cardiovascular, obesity, etc. The change in nutrition and lifestyles like fast foods, soft drinks, sedentary lifestyles, and lack of exercise most of the time watching the TV and using a computer all cause overweight in children in both rural and urban (Hanley et al, 2000; Lahmann et al, 2000). Snakes and junk foods consumed at home and outside are one of the main risk factors for overweight and obesity. Physical activity is associated with physical, mental, and self-esteem. One study shows physical activity is associated with high self-esteem and low levels of anxiety symptoms (Calfas and Taylors, 1994; Sothorn et al, 1999). In one intervention study, a total of 198 students participated in the intervention, 13.7% of anxiety reduced and 2.3% of self-esteem increased in the intervention (Bonhauser et al, 2005). A sedentary lifestyle, consuming high-fat food, french fries, and pizza, causes unhealthy risks like overweight, obesity, cancer, cardiovascular, etc. The study shows Costa Rica's significant overweight and obesity were higher in urban more than in rural areas (Nunez-Rivas et al, 2003). Cavill et al, (2001) study mentioned physical activity affects young students' psychological well-being, self-esteem, overweight and obesity, and chronic disease risk factors. A positive relationship between health, health habits, and academic achievement (Logi Kristansson et al, 2010). Sallis et al, (1999) study described that physical education has favorable effects on students' academic performance. Huntsinger and Luecken, (2004) findings demonstrated associated behavior & high levels of self-esteem.

Students gain age-appropriate knowledge, attitudes and understanding, and health skills such as

nutrition, disease prevention, hygiene, physical activity, yoga, meditation safety, mental health, HIV/AIDS, tobacco, and drug use prevention, oral health, and environmental issues. The School provides age-appropriate health screening, blood tests, and oral health, conducts curriculum activities, and maintains health records and registration. Adebayo & Onadeko, (2016) Cross-sectional study, found that 1.7% of school health programs are to promote and maintain the well-being of students and staff, 2.4% of urban school teachers have correct knowledge about school health programs compared with rural areas 1.0%, and 94.6% of teachers in rural areas responded by providing first aid services, and in urban areas, 91.7%, and 75% reported providing medical examinations for students in rural and 16.0% in an urban area, rural school respondents 15.8% had adequate knowledge of school health programs compared to urban school teachers 15.1%. Presently most of the schools inappropriately implementing the school health programme. Because of the lack of training in the school health programme, programme evaluation, and lack of co-operation of parents and community.

Suggestion: The school health programme is a dynamic process that is continuously monitored and assessed. Because of the school is the beginning platform for the future life. Schools provide appropriate support and assistance, facilities, learning aids and programs offered, and extra-curricular opportunities like celebrating cultural diversity, food competitions, debates, and quizzes, maintaining good hygienic conditions in the school, and teaching in the classroom. The school supports and creates an environment of friendly, physical, psychological, environmental, and healthy attitudes, and healthy lifestyles and develops self-esteem, personal and social skills, leadership qualities, and decision-making. Students achievement depends on appropriate educational, physical, and psychological environment. Improve the health facilities in school, health improvement through the program, health-related campaigns, messages to parents and community members encourage participate activities, health rallies, celebrate special health days and awareness, posters, and pamphlets on various issues were distributed in school, school health and sanitation related committee set up in school. The program is described as the cooperative activities of teachers, parents, community, school doctors, nurses, primary health centers, & health workers, etc.

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Conclusion:

Children are a vulnerable group and easy victims of many disorders of childhood. The school health concept is a crucial aspect because school health promotion includes curative, preventive, and promotive aspects. Children's healthy social & emotional development is an essential support to school readiness, academic success & overall well-being. However, achieving the declaration of Health for All and the sustainable development goal. Education and health that effectively impact children's quality of life. Successful school health programs ensure better education outcomes.

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The Role of Formal Education in Cultivating Entrepreneurship

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Abstract:

Entrepreneurship is a key part of economic growth and new ideas, especially in countries like India that are still growing. This study paper looks at how important the Indian formal education system is for encouraging people to start their own businesses. This paper looks into the connection between education and the growth of business using theories like institutional theory, social learning theory, and human capital theory. It gives a historical overview of the Indian education system and the business world, showing how schools need to change to encourage students to think and act like businesspeople. The framework, curriculum, and problems of India's formal education system are looked at to see how well it works at encouraging people to start their own businesses. Also looked at are government programmes and policies that try to include entrepreneurship education. In addition to formal education, the study also looks at how non-formal education can help. Based on the results, suggestions are made for how to improve the role of official education in encouraging entrepreneurship. These include changes to policies and plans for incorporating entrepreneurship into the curriculum.

Keywords: Entrepreneurship, formal education, India, policy, curriculum, development.

Introduction:

In India, entrepreneurship has grown a lot in the past few years thanks to a growing startup community, helpful government policies, and an active business environment. Entrepreneurship has become a key driver of economic growth and innovation in the country. From tech startups shaking up old industries to social businesses solving important social problems, entrepreneurship has become a key driver of economic growth and innovation. Even though India has made progress, there are still big problems that keep it from reaching its full business potential. It can be hard to help and guide aspiring business owners so they have the skills, knowledge, and mindset they need to achieve in a world that is becoming more and more competitive. An important way to deal with this problem is through formal schooling, which gives people the basic skills and resources they need to start their own businesses. Formal schooling helps people become successful entrepreneurs by teaching them useful skills, encouraging critical thinking, and encouraging creativity and problem-solving. Not only does traditional education teach technical skills, it also teaches important values like resilience, adaptability, and risk-taking, which are traits that entrepreneurs must have to deal with the uncertainties of the business world. Because education and business are closely linked, the goal of this study is to find out how the Indian formal education system helps people become entrepreneurs. This study looks at the current state

of the education system, how formal education affects the skills and mindset of people who want to be entrepreneurs, and the government programmes and policies that are meant to encourage entrepreneurship education. The goal is to find ways that educational institutions can better support the goals of people who want to be entrepreneurs. In the end, this study aims to add to the current conversation about how to encourage a culture of entrepreneurship in India. Its findings will have effects on policy, practice, and future research.

The historical background

Indian history shows that education and business have a lot to do with each other, showing the country's path to socioeconomic growth. In earlier times, Gurukuls and Ashrams were important places for teaching. Over time, the Indian education system has changed over time. Over hundreds of years, the system changed due to different ruling families, colonial powers, and changes in society and culture. It finally reached its current form, which is a mix of traditional and modern schools. At the same time, India's business world has grown a lot. This is due to things like the population dividend, globalisation, and improvements in technology. From before freedom to after liberalisation, entrepreneurs have been very important in shaping India's economy. Additionally, earlier research has shed light on the connection between education and entrepreneurship in India, showing how education affects the desire to become an entrepreneur, the development of skills, and the growth of a business. These studies have given us

useful information about how business works in Indian schools. This information has helped policymakers and school reformers make changes that will help create an environment that encourages innovation and economic growth.

Current State of Formal Education System in India

India's large population and differences between regions have made the country's official education system very different from one place to another. The system is structured with primary, secondary, and tertiary levels. Public and private institutions play important parts in the system. Access to good schooling is still not equal, though. People in cities often have better access to resources and infrastructure than people in rural areas. Different states and educational boards have different curricula and ways of teaching. Most of them focus on memorization and test-oriented methods. This old-fashioned way of teaching often makes it harder to develop critical thought, creativity, and the practical skills that entrepreneurs need. Also, students can't learn how to be entrepreneurs because their classes are out of date and don't focus on real-world applications. Problems like not enough money, not enough teachers, and bad facilities make these problems worse, making the gap between educational goals and results even bigger. Taking care of these problems is necessary to help India's young people reach their full potential and to encourage a culture of innovation and business, which are both important for long-term economic growth.

The Impact of Formal Education on Entrepreneurial Skills and Mindset

Formal education is one of the most important ways to give people the information and skills they need to be successful as entrepreneurs. Students learn a lot about business ideas, market dynamics, financial management, and strategic planning through structured coursework and hands-on training. Formal education also helps people create an entrepreneurial mindset that is open to new ideas, willing to take risks, resilient, and flexible. School systems give students the confidence and drive they need to see possibilities and go after them with conviction by teaching them to think critically, be creative, and solve problems. A lot of case studies show how formal schooling has a big effect on business owners in India. For example, the stories of graduates from top business schools who went on to start successful businesses show how formal education can change the results of being an entrepreneur. Also, programmes like entrepreneurship clubs, incubation centres, and mentorship programmes in schools have made it easier to put what you've learned into practice, helping would-be entrepreneurs deal with problems and take advantage of new opportunities. Overall,

adding entrepreneurial education to regular classes not only makes the business world better, but it also creates a new group of creative leaders who can help the economy grow and society improve.

Government Initiatives and Policies to Promote Entrepreneurship Education

In India, government programmes and policies are very important for encouraging people to learn how to be businesses. The Atal Innovation Mission, Startup India, and Skill India are some of the programmes that have been put in place to encourage people to become entrepreneurs. The goal of these programmes is to help people who want to start their own businesses by giving them money, advice, and space. But how well they work at achieving their goals needs to be carefully looked at. Some programmes have had good results by encouraging a culture of innovation and business, but others have had trouble reaching their intended audience or having an effect that lasts. Also, putting these policies into action often runs into problems like too much red tape, not enough money, and parties not being aware of the issue. Even with these problems, the government keeps working to improve its plans and work with different groups to meet the changing needs of the startup community. For government programmes to have the most effect on entrepreneurship education across India, they need to be streamlined, agencies need to work together better, and resources need to be wisely distributed.

Role of Non-Formal Education in Fostering Entrepreneurship

Non-formal education and training programmes are very important for encouraging people to become businesses, especially in a country like India that is very diverse and always changing. Formal education usually has a set curriculum and structure. Non-formal education, on the other hand, can be changed to fit the needs and hobbies of people who want to start their own business. These programmes are very important because they give people the chance to learn theoretical information along with useful skills, experiences, and mentorships. Non-formal education also caters to people who might not be able to or do well in traditional classrooms, making business chances more accessible to everyone. Formal education builds the base by teaching basic skills and ways to think critically. Non-formal education fills in the gaps by giving specific training in things like business planning, market research, and networking. By combining the best parts of formal and informal schooling, people who want to be entrepreneurs can get a well-rounded set of skills and a mindset that will help them handle the challenges of starting and running successful businesses in India.

Recommendations for Enhancing the Role of Formal Education

A multifaceted method is needed to improve the role of formal education in encouraging people to start their own businesses in India. First, lawmakers should make it a priority to create and implement broad policies that encourage teaching about entrepreneurship at all levels of formal education. As part of this, money should be set aside for specialised training programmes, schools and business partners should work together more, and teachers who are great at teaching entrepreneurship should be rewarded financially. Second, changes need to be made to education so that entrepreneurship education fits in well with the rest of the programme. To do this, current course plans need to be changed to include entrepreneurial ideas. Students also need to be given the chance to learn by doing, and schools need to encourage a culture of innovation and taking risks. Finally, ways to include teaching entrepreneurship in the regular school curriculum should focus on using methods from different fields, using technology to make learning more fun, and encouraging students to use business concepts to solve problems in the real world. India can give its young people the skills, attitude, and resources they need to be successful as entrepreneurs in the 21st century economy by following these suggestions.

Conclusion:

In conclusion, this study shows how important formal schooling is for encouraging people to become entrepreneurs in India. By looking at the historical background, theoretical frameworks, and present state of the education system, it becomes clear that education helps to develop entrepreneurial skills, attitudes, and ways of thinking. The study of government programmes and initiatives shows both success and problems in encouraging students to become entrepreneurs. Some of the most important results stress the need for major changes in the way schools work and for business to be strategically added to the regular lessons to make them more useful. The effects on policy and practice show how important it is for educational institutions, government agencies, and business stakeholders to work together to make an environment that encourages the growth of entrepreneurs. This study also suggests areas for further research, such as looking into the long-term effects of teaching business, the usefulness of certain teaching methods, and how non-formal education can help with formal education. By focusing on these areas, policymakers, teachers, and academics can help India's business community grow in a way that lasts.

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From Classrooms to Quarantine: Understanding Student Mental Health in the Age of COVID-19

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Abstract:

The pandemic brought significant changes and consequences in all areas of daily life. The impact of the COVID-19 virus completely changed the way of living and working and as a result new working conditions were imposed on it. Daily exposure to new situations creates some mental disturbance for everyone and has increased the suffering of mental health all over the world. Indeed, the actual outbreak is increasing psychological distress and mental health problems such as stress, anxiety and depression. Most of the psychological distress and mental health problems have been observed in vulnerable groups i.e. women, children, older people, differently abled persons and students. People between the ages of 18 and 23 were at higher risk of stress, anxiety and depression than higher age groups, and the impact of the COVID-19 pandemic on academic sectors increased mental health issues such as stress, anxiety and depression among students. In addition, mental health problems have increased the suicide rate over the years and most students are having suicidal thoughts. Hence the aim of this study is to shed light on the mental health issues of the students during the COVID-19 pandemic.

Keywords: Mental health Issues, Students, COVID-19 pandemic.

Introduction:

The COVID-19 epidemic has had an impact on nearly every aspect of the economy, employment, education, and health. Social distancing, self-isolation, and travel bans affect the reduction of workers in all monetary sectors and result in many jobs being lost¹. COVID-19 pandemic is a public health emergency of international concern which originated in China, in December 2019 and rapidly spread around the globe. The emergence of the pandemic has led to primordial social and economic swaps around the world; sponsored measures for their conduct have a significant effect on the mental health of individuals. The COVID-19 pandemic has a profound impact on all aspects of life.

It may be associated with psychiatric symptoms in both adults and the pediatric population². A study among the adult population in 2020 found that clinically significant psychiatric symptoms of anxiety, depression, distress, and PTSD were present in up to 36% of participants³. As a human being, when we face a danger or uncertainty, fear, worry, and stress are the normal reason. The Covid-19 pandemic affects the mental condition of infected patients and also those who forced to stayed at home (social distancing). Fear and anxiety about a new disease and what could happen can be overwhelming and cause strong emotions in grown-ups and children⁴. Research suggests that from the initial moment of the pandemic people have generally had psychological

problems, such as distress, depression and stress^{5&6}. Similarly, another study found that, stress, anxiety, and depression were the pervasive problems for college student population during the pandemic⁷.

During quarantine, people face many consequences of physical and emotional social distancing, including isolation and future uncertainty. Degrees of isolation vary between individuals, ranging from physical (i.e., contact) or symbolic (i.e., separation from loved ones), and affect the human psyche⁸. Change in living environment, change in sleeping habits due to academic workload, responsibility related to holding a job while studying, also financial difficulties make a student tensed and depressed. Poor nutrition and unhealthy eating habits increases the students stress level. Students may feel discomfort being in a new environment which adversely affects their studies. Human body needs some rest and break from time to time. A student who lacks skills of using computer for academic purposes is another cause for psychological distress. Apart from this bad living condition, fear, future worries, divorced parents and their unrealistic expectations also stress them up⁹. However, between the age of 18 and 23 faced higher prevalence of depression than higher age groups. One possible explanation for this pattern of results is that this age range falls under a sensitive period within which mood disorders might manifest and this is also critical transitory period in which they are going from adolescence to adulthood; a period with unique pressures and requirements such as marriage pressure, planning for the future and

maintaining good grades. With disruptions and uncertainties in academic and personal lives brought by COVID-19, this age group was more likely to be depressed^{10,11&12}. According to UNICEF, the COVID-19 pandemic has battered education systems around the world, affecting close to 90 percent of the world's student population. Post the corona virus outbreak; students in India have been exposed to a different learning experience. Remote learning using online means does have its own advantages, but it poses some emotional challenges to students. Several students are finding it hard to adapt themselves to the new learning style and unexpected challenges. During the entire pandemic, students have been trying to cope with what the new normal seems to be for them, ranging from online classes, travelling in the pandemic to appear for exams and constant tussle with occupancy of rooms in hostels.

During lockdown, with the closure of universities and colleges, such physical and social interaction has been restricted resulting in stress, and the students, harmful pandemic effects on psychological and emotional well-being have been observed¹³. Prequarantine factors can also act during the pandemic producing effects on mental health. For example, having a history of psychiatric illness was associated with anxiety symptoms and anger during the quarantine¹⁴. Furthermore, personality traits, like neuroticism, extroversion, and conscientiousness were linked to an increase in levels of stress and social and behavior during the pandemic^{15,16&17}. Nevertheless, COVID-19 increases psychological stress and the consequences of quarantine leads emotional disturbance, depression, irritability, insomnia, anger, and emotional exhaustion among other health and mental health conditions¹⁸. College students are stressed by study workload and completion of assignments and seminars within a limited span of time. Perceived stress which showed a positive correlation with feeling more stressed about COVID-19 changes, negative correlation with feelings of unsure about future, loss of appetite and feeling of hopelessness, worthlessness and helplessness¹⁹. Studies in Chinese schoolchildren reveal that, at the same time of the existence of depressive signs and stress, excessive emotions of mistrust and problems in the permanence of sleep have been detailed, a study with Greek students verified an increase in suicidal inclinations in them^{20&21}.

Given an advertisement 74% of Indians suffering from stress; 88% reported anxiety. The implications of living in quarantine, as a result of the COVID-19 pandemic lockdown in India was not only a stress trigger but also had negative psychological effects on the population²². Indians learnt to adapt to the new normal which affected

every dimension of their lifestyle, i.e. levels of physical activity, sleep cycles, nutrition, and their social lives. In an attempt to cope with this paradigm shift, long bouts of stress caused by enforced isolation, financial stress, job cuts, along with unhealthy lifestyles were the precursors for depression and anxiety. In addition, those already victim to these disorders, prior to the pandemic, found their conditions to be exacerbated, as a result of social isolation and neglect due to overworked healthcare systems.

Causes for Stress among Students:

In particular, high levels of stress, anxiety and depression have been observed across the world. Similarly, the negative impact of quarantine such as development of irritability, anger, insomnia, anxiety, and depression¹⁴. Depression in particular has been observed in various populations and tertiary student have not been spared. Due to an abrupt shift from physical to virtual tutorship, tertiary students could have been affected by the shift. The transition to online learning, lack of internet infrastructure, economic challenges, fear of infection uncertainty about academic development among others have been identified as risk factors²². Further, student mental health difficulties were associated with employment losses, difficulties focusing on academic work and concern about Covid-19²³. Distance learning and social isolation were high risk factors of depression among students²⁴. With the disturbances and uncertainties caused by the pandemic, research evidence has been proffered that students might sink into depression resulting in poor academic performance and, the worse mental health at the beginning of the pandemic was associated with suicidal ideation, alcohol and substance misuse²⁵, missing greater number of classes, assignments, examinations and dropping out from the University^{26, 27,28,29,30,31&32}.

A national study among Chinese people showed that 35% of participants experienced psychological distress during the COVID-19 pandemic. Psychological distress was higher in women, people between 18 and 30 years or over 60 years of age, and those with higher education³³. Furthermore, financial stress is a large contributor that directly or indirectly influences anxiety in students^{34&35}. Lack of clarity and a negative effect on the continuity of learning could potentially affect the mental disorder of students when the Covid19 pandemic²⁶. A study in China states that during the isolation period and the university had not yet opened, it was likely that students would often stay at home so students might adopt indeterminate lifestyles such as poor sleep quality, stress, anxiety due to education or future work³⁶. Psychological resilience, understood as the ability to psychologically or emotionally cope with a crisis or

quickly return to a pre-crisis state, is increasingly seen as a protective factor. Among university students, harmful pandemic effects on psychological and emotional well-being have been observed³⁸

Conclusion:

The present paper aims to describe the major mental health issues among students during the COVID-19 pandemic. By reviewing the literature, the researchers understood that the pandemic affected not only the education of students but also their psychological well-being. Furthermore, data from previous research shows that the number of mental health problems and issues has increased after the emergence of the COVID-19 pandemic. On the other hand nuclear family is also a major cause of psychological distress. Nuclear family members not share their feelings with others due to their lack of emotional and social support. Hence, It is important to give more importance to mental health in the coming days to improve the quality of life especially in crisis and pandemic situations.

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A Study on Intellectual Property Rights and Its Significance for E- Commerce

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Abstract:

Intellectual Property Rights (IPRs) have become a critical aspect of the modern digital economy, particularly in the realm of e-commerce. This research paper aims to explore the significance of Intellectual Property Rights in the context of e-commerce, analyzing their role in fostering innovation, protecting creators, and sustaining business competitiveness. More than other business models, e-commerce frequently involves the sale of goods and services that are dependent on IP and its licensing. Through e-commerce, you may exchange things like software, designs, training materials, systems, and more, with the IP serving as the major source of value. The paper examines various types of intellectual property, such as patents, trademarks, copyrights, and trade secrets, and their relevance to e-commerce platforms. Furthermore, it investigates the challenges and opportunities associated with enforcing IPRs in the digital environment. By elucidating the interplay between IPRs and e-commerce, this paper provides insights into the evolving landscape of digital commerce and the imperative for effective intellectual property protection.

Keywords: Intellectual property rights, E- commerce, Legal protection, Significance

Introduction:

In the dynamic landscape of the digital economy, Intellectual Property Rights (IPRs) have emerged as indispensable assets, particularly within the realm of e-commerce. These rights encompass a spectrum of legal protections granted to individuals or entities for their intellectual creations, including inventions, literary and artistic works, trademarks, and trade secrets. In the context of e-commerce, where transactions occur seamlessly across virtual platforms, the significance of IPRs cannot be overstated. They serve as the cornerstone for fostering innovation, incentivizing creativity, and safeguarding the interests of creators, entrepreneurs, and consumers alike.

E-commerce, characterized by the buying and selling of goods and services over electronic networks such as the Internet, has experienced exponential growth in recent years. With the proliferation of online marketplaces, digital content distribution platforms, and software-as-a-service models, the value of intellectual property in facilitating smooth and secure transactions has become increasingly apparent. From protecting the innovative algorithms powering e-commerce algorithms to preserving the brand identity of online retailers, IPRs play a pivotal role in shaping the competitive landscape and sustaining consumer trust in the digital marketplace.

However, the intersection of IPRs and e-commerce also presents unique challenges, ranging from the unauthorized reproduction of digital

content to the proliferation of counterfeit goods in online marketplaces. As such, effective enforcement mechanisms and robust legal frameworks are imperative to uphold the integrity of intellectual property rights and ensure a level playing field for businesses operating in the digital sphere.

This research paper endeavors to delve into the multifaceted relationship between Intellectual Property Rights and e-commerce, examining their symbiotic nature and exploring strategies for enhancing IPR protection in the digital economy. By shedding light on the significance of IPRs in facilitating innovation, fostering fair competition, and promoting consumer welfare in e-commerce, this study seeks to provide valuable insights for policymakers, businesses, and stakeholders navigating the evolving landscape of digital commerce.

Review of Literature:

The significance of Intellectual Property Rights (IPRs) in the realm of e-commerce has garnered substantial attention from scholars, policymakers, and industry practitioners. A review of the existing literature reveals a comprehensive understanding of the role of IPRs in fostering innovation, protecting digital assets, and shaping the competitive landscape of online commerce.

1. Fostering Innovation:

Numerous studies emphasize the critical role of IPRs in promoting innovation within the e-commerce sector. For instance, Chen and Puttitanun (2005) highlight how patents incentivize firms to invest in research and development, leading to the

creation of novel technologies and business models in e-commerce. Similarly, Park and Ginarte (1997) provide empirical evidence of the positive correlation between patent protection and innovation, particularly in technology-intensive industries like e-commerce.

2. Protecting Digital Assets:

Intellectual property protection is paramount for safeguarding digital assets such as software, digital content, and proprietary algorithms in e-commerce platforms. According to literature by Gopal and Sanders (1997), effective copyright and trademark enforcement mechanisms are essential for preventing unauthorized use and distribution of digital content, thereby preserving the economic value of digital assets.

3. Enhancing Brand Reputation:

Brands play a crucial role in e-commerce, where consumer trust and loyalty are essential for business success. Research by Ghose and Yang (2009) underscores the significance of trademarks in building brand reputation and differentiating products in the competitive online marketplace. Furthermore, studies by Wang and Kim (2007) highlight the positive impact of trademark registration on consumer perceptions of product quality and authenticity in e-commerce transactions.

4. Addressing Challenges in Enforcement:

The enforcement of IPRs in e-commerce faces several challenges, including jurisdictional complexities, digital piracy, and counterfeiting. Scholars such as Peitz and Waelbroeck (2006) examine the role of legal frameworks and technological solutions in combating online piracy and protecting intellectual property rights. Additionally, studies by Liu and Arnett (2000) explore the effectiveness of anti-counterfeiting strategies employed by e-commerce platforms and the need for collaboration between stakeholders to address these challenges effectively.

5. Opportunities for Improvement:

Literature also identifies opportunities for enhancing IPR protection in e-commerce through collaborative initiatives, technological innovations, and regulatory reforms. For instance, research by Yu (2001) advocates for the use of digital rights management (DRM) systems and encryption technologies to secure digital content and prevent unauthorized copying and distribution. Furthermore, studies by Varian (2005) propose policy interventions and legal reforms to address the evolving nature of intellectual property infringement in the digital age.

In summary, the reviewed literature underscores the critical importance of Intellectual Property Rights in the context of e-commerce, highlighting their role in stimulating innovation, protecting digital assets, and fostering trust and competitiveness in online transactions. However,

challenges such as enforcement issues and technological advancements necessitate continuous research and concerted efforts from policymakers, businesses, and other stakeholders to ensure effective IPR protection in the digital economy.

Significance Of The Study

The majority of businesses worldwide consider their intellectual property to be a much more valuable asset than any physical property they may hold. This is due to the fact that intellectual property laws shield businesses against unfair competition as well as the disclosure of their trade secrets. The primary goal of intellectual property legislation is to promote the production of several different intellectual goods. To do this, the law grants individuals and organisations ownership rights to the knowledge and intellectual products they produce, typically for a finite amount of time. Because it enables people to make money from the knowledge and intellectual products they produce, this provides an economic incentive for their creation. Depending on the level of protection provided to innovators, these economic incentives are anticipated to encourage innovation and advance technology in countries.

The modern digital economy makes the importance of IPR in E-commerce particularly obvious. In addition to preserving the creator's labour, the existence of regulations and procedures that govern the operation of IP laws has promoted new creations. The law forbids people from stealing intellectual property (IP) and utilizing it for their own financial gain without compensating the inventor for their labour and ingenuity. This study concentrates on the importance of intellectual property rights in E-commerce.

Objectives Of The Study

1. To comprehend the history and overview of intellectual property rights.
2. To know the role of intellectual property rights in E-Commerce.
3. To identify the e-commerce components covered by IPR.
4. To Study the various type of intellectual property Rights.

Research Methodology

In order to achieve the above objectives information was collected from the secondary sources readily available. Various reports, research papers, case studies regarding role of intellectual property right were referred to, apart from numerous journals and articles. The in-depth analysis of various literature had helped the authors to frame the idea about intellectual property rights and its significance for e-commerce. This research paper is descriptive and conceptual in nature. It is descriptive in the sense that it tries to identify various characteristics of research objectives and it is

conceptual since it examines literature review of past studies conducted in these fields

Three Main Types of IPR

Patent: A patent is a form of intellectual property protection granted to inventors for their inventions, providing them with exclusive rights to exploit their creations for a limited period. Patents serve as a crucial mechanism for promoting innovation by incentivizing individuals and organizations to invest in research and development.

Key features of patents include:

1. Innovation Protection
2. Exclusive Rights
3. Limited Duration
4. Public Disclosure
5. Legal Enforcement

In the context of intellectual property rights (IPR), patents play a vital role in fostering technological advancement, driving economic growth, and promoting competition. They enable inventors to capitalize on their innovations while contributing to the development of new technologies and industries. Additionally, patents facilitate knowledge-sharing and collaboration among inventors, researchers, and businesses, leading to further innovation and progress across various fields.

1. Trademark:

A trademark is a distinctive sign or symbol that identifies and distinguishes the goods or services of one party from those of others. It can take various forms, including words, logos, symbols, or a combination thereof. Trademarks play a crucial role in the field of Intellectual Property Rights (IPR) by protecting the brand identity and reputation of businesses in the marketplace. The primary function of trademarks is to enable consumers to identify and associate products or services with a particular source or origin. They serve as a guarantee of quality and consistency, fostering consumer trust and loyalty. Additionally, trademarks facilitate effective marketing and advertising strategies, as they help businesses stand out in a crowded marketplace and create strong brand recognition. Overall, trademarks represent a cornerstone of Intellectual Property Rights, offering invaluable protection and recognition to businesses in the global marketplace. Their significance extends beyond mere symbols; they are powerful tools for brand building, consumer trust, and maintaining a competitive edge in the ever-evolving landscape of commerce.

2. Copyright

Copyright is a form of intellectual property protection that grants creators the exclusive rights to their original works, including literary, artistic, musical, and dramatic creations. This protection allows creators to control the reproduction, distribution, public performance, and adaptation of

their works. Copyright safeguards not only tangible forms of expression, such as books, music recordings, and artwork, but also digital content, software, and online publications in the modern digital landscape. It serves as a crucial mechanism for incentivizing creativity, fostering innovation, and ensuring fair compensation for creators. By balancing the interests of creators and the public, copyright law plays a pivotal role in promoting cultural advancement while safeguarding the rights of creators in the dynamic realms of literature, art, and digital media.

Intellectual Property Rights and Its Role In E- Commerce

In the digital age, where commerce transcends physical boundaries and transactions occur at the speed of a click, Intellectual Property Rights (IPRs) play a pivotal role in shaping the landscape of e-commerce. IPRs encompass patents, trademarks, copyrights, and trade secrets, providing creators and innovators with legal protection for their intangible assets in the online sphere.

Understanding the function of intellectual property in e-commerce is more crucial than ever thanks to ongoing advancements in the internet's technological infrastructure. IPR can be used in e-commerce in four different Ways:

1. Protecting a company's business interests
2. Protecting vital components
3. Safeguarding goods and obtaining patent permits
4. Preserving patent and trademark holdings

Elements Protected Under Ipr In E- Commerce

IPR in retail and e-commerce pertains to the buying and selling of goods via a physical store and an online store, respectively. Owners of retail and E-businesses must therefore safeguard a variety of intellectual properties. The items listed below are those that IPR in E-commerce covers under various models and legislations.

1. Search engines, e-commerce platforms, and other crucial online technologies are covered by patents and utility models.
2. Depending on the country's IPR rules, specific software, including the text-based HTML code used by websites, is protected under the Patent Law or the Copyrights Act.
3. An e-commerce website's entire design is likewise shielded by copyright laws.
4. The Copyright Law protects all of the information on the website, including any written or visual materials, films, images, or other graphics.
5. Companies can use copyright laws or country-specific database legislation to protect their databases under e-commerce in IPR.
6. Companies can use the Trademark Law to protect their brand names, product names, logos, domain names, and other similar

identifying indications posted on their websites with reference to both IPR in retail and e-commerce.

7. Under the appropriate Industrial Design Law in their nation, businesses are also allowed to protect their computer-generated displays, graphic signals, webpages, and graphical user interfaces.
8. Websites frequently contain a number of hidden components that are protected by various trade secret laws, including secret visuals, object and source codes, algorithms, and programmes, technical descriptions, logic and data flow charts, user manuals, and the contents of their databases
9. Several international treaties and agreements establish standards for intellectual property protection in e-commerce, fostering a global framework for IPR enforcement.
10. Individual countries have enacted laws and regulations specific to e-commerce and intellectual property to address the unique challenges presented by online transactions.
- 11 Digital Rights Management systems are technological solutions designed to protect digital content and manage access rights in e-commerce environments. These systems employ encryption, watermarking, and access controls to prevent unauthorized copying, distribution, and use of copyrighted materials.

Conclusion:

In conclusion, the realm of IPR is a multifaceted domain crucial for fostering innovation, creativity, and economic growth. Through the protection of patents, copyrights, and trademarks, individuals and organizations are incentivized to invest in research and development, thereby driving progress across various industries. In the age of E-commerce, where digital transactions and online platforms thrive, the significance of IPR becomes even more pronounced, as it safeguards the rights of creators and innovators in the digital landscape.

This research paper has provided insights into the complexities surrounding IPR, exploring its fundamental concepts, legal frameworks, and implications for innovation and commerce. By delving into the nuances of patent, copyright, trademark, and their interplay with E-commerce, we have gained a deeper understanding of how these mechanisms contribute to a vibrant and competitive marketplace.

However, challenges persist, including the need for robust enforcement mechanisms, addressing emerging issues such as digital piracy and infringement in online spaces, and striking a balance between incentivizing innovation and promoting accessibility to knowledge and culture.

Moving forward, policymakers, businesses, and individuals must continue to navigate these challenges collaboratively, fostering a conducive environment for innovation while upholding the principles of fairness and accessibility. Through concerted efforts to strengthen IPR frameworks, promote awareness, and foster a culture of respect for intellectual property, we can ensure that innovation continues to thrive, benefiting society as a whole.

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Balancing Intellectual Property Rights and Human Rights to Health: A Critical Analysis of Access to Essential Medicine

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Abstract:

This research paper undertakes a critical analysis of the intricate interplay between intellectual property rights (IPR) and human rights to health, particularly concerning access to essential medicines. The pharmaceutical industry's innovation ecosystem, driven by robust intellectual property protection, has yielded groundbreaking medical advancements. However, this same framework has led to concerns regarding affordability, availability, and equitable access to life-saving medications, especially for vulnerable populations and developing countries.

The objectives of this study are twofold. Firstly, it aims to assess the impact of intellectual property regimes on access to essential medicines, analyzing pricing mechanisms, patent barriers, and market dynamics. Secondly, it delves into the legal frameworks and policy initiatives governing IPR and human rights at national, regional, and international levels, examining the tensions and synergies between these domains.

Through a multidisciplinary approach encompassing legal analysis, case studies, and ethical considerations, this paper uncovers the complexities and challenges inherent in balancing IPR and human rights to health. It explores innovative strategies and policy recommendations aimed at reconciling commercial incentives with public health imperatives, ensuring that intellectual property frameworks promote innovation while safeguarding universal access to essential medicines as a fundamental human right. By offering a critical lens on this crucial intersection, this research contributes to ongoing discussions on global health equity, highlighting the need for collaborative efforts among governments, industry stakeholders, and civil society to achieve a harmonious balance between intellectual property rights and human rights to health.

Keywords: Intellectual Property Rights, Human Rights to Health, Access to Essential Medicines, Pharmaceutical Industry, Legal Frameworks, Ethical Considerations.

Introduction:

The intersection of intellectual property rights (IPR) and human rights to health represents a complex and often contentious terrain, particularly concerning access to essential medicines. On one hand, robust intellectual property protection is seen as a catalyst for pharmaceutical innovation, driving research and development efforts to discover new treatments and therapies. On the other hand, the fundamental right to health, recognized globally as a basic human right, necessitates equitable access to affordable medications, especially those deemed essential for addressing public health challenges.

The pharmaceutical industry, characterized by intricate patent systems and market dynamics, plays a central role in this discourse. While intellectual property regimes incentivize investment in drug development, they also create barriers to access, particularly for marginalized populations and individuals in low- and middle-income countries. This dichotomy raises profound ethical and policy questions regarding the prioritization of commercial interests versus public health imperatives. Against this backdrop, this research

paper embarks on a critical analysis aimed at unraveling the complexities of balancing intellectual property rights and human rights to health, with a specific focus on access to essential medicines. By scrutinizing legal frameworks, examining case studies, and delving into ethical considerations, this study seeks to provide insights into the challenges and opportunities inherent in reconciling these divergent interests.

The objectives of this analysis are multifaceted. Firstly, it aims to evaluate the impact of intellectual property regimes on the accessibility, affordability, and availability of essential medicines, particularly in resource-constrained settings. Secondly, it seeks to dissect the legal frameworks governing intellectual property and human rights at national, regional, and international levels, exploring the tensions and synergies between these frameworks. Thirdly, through empirical data, case studies, and comparative analyses, this paper aims to shed light on practical challenges faced by stakeholders, including governments, pharmaceutical companies, healthcare providers,

and patients, in navigating the intricate landscape of intellectual property and public health.

By undertaking this critical analysis, this research aspires to contribute to ongoing discussions and debates surrounding the interface of intellectual property rights and human rights to health. It advocates for a nuanced approach that acknowledges the value of innovation while advocating for equitable access to essential medicines as a fundamental human right

Objectives:

1. Evaluate the impact of IPR regimes on access to essential medicines, including pricing, availability, and affordability.
2. Examine the legal and ethical challenges in balancing IPR protection and human rights to health, with a focus on international agreements and national policies.
3. Analyze case studies and examples to illustrate the practical implications of IPR on healthcare access in different regions.
4. Propose recommendations and strategies for promoting a more equitable and sustainable approach to IPR in the pharmaceutical sector.

Literature Review:

The intersection of intellectual property rights (IPR) and human rights to health offers a rich tapestry of perspectives, debates, and empirical evidence that underscores the complexity of balancing these two domains. Scholars such as Reichman and Hasenzahl (2009) have highlighted the role of patents in incentivizing pharmaceutical innovation, arguing that strong IPR protection fosters research and development efforts, leading to a pipeline of new drugs and therapies.

This perspective resonates with the economic rationale behind IPR regimes, emphasizing the importance of incentives for private investment in healthcare technologies. However, critics, including Love and Hubbard (2007), have raised concerns about the adverse effects of IPR on access to medicines, particularly in low- and middle-income countries. They argue that patents can create monopolies, leading to high drug prices and hindering access for vulnerable populations. This dichotomy between innovation incentives and access challenges is further explored by authors like Wirtz et al. (2017), who conducted a systematic review of studies on drug pricing and affordability. Their findings reveal disparities in pricing strategies across different regions, with patented medications often being inaccessible to those in need.

Moreover, the legal landscape governing IPR and public health is a subject of extensive analysis in the literature. International agreements such as the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement have been scrutinized for their impact on access to essential medicines. Chon et al. (2013) delve into the

flexibilities within TRIPS, such as compulsory licensing and parallel imports, as mechanisms to mitigate the adverse effects of patents on access. Similarly, the Doha Declaration on TRIPS and Public Health (2001) is often cited as a pivotal moment in the discourse, affirming the primacy of public health interests in the face of IPR constraints. These legal frameworks and policy interventions form the backdrop for understanding the regulatory landscape and the potential avenues for addressing access challenges.

Overall, the literature review underscores the multifaceted nature of the debate surrounding IPR, human rights, and access to essential medicines. It provides a comprehensive foundation for the critical analysis and policy recommendations put forth in this research paper, illuminating the complexities and nuances of balancing intellectual property rights with the imperative of ensuring universal access to life-saving treatments.

Data and Methodology:

This research paper employs a mixed-methods approach to conduct a critical analysis of the intersection between intellectual property rights (IPR) and human rights to health, with a specific focus on access to essential medicines. The methodology encompasses both qualitative and quantitative elements, drawing on a range of data sources and analytical techniques.

1. Data Sources:

Legal Documents and Policies: Analysis of national and international legal frameworks related to intellectual property rights and public health, including patent laws, trade agreements, and regulatory guidelines.

Case Studies: Examination of specific cases and examples involving access to essential medicines, such as patent disputes, generic drug availability, and pricing strategies.

Statistical Data: Utilization of statistical data on drug pricing, affordability, and availability across different regions to assess trends and disparities.

Scholarly Literature: Review of academic articles, reports from international organizations, and policy analyses to inform the critical analysis.

2. Methodological Approaches:

Legal Analysis: Systematic review and interpretation of legal documents, court rulings, and policy documents to understand the implications of intellectual property regimes on access to medicines.

Comparative Analysis: Comparative study of different national and international legal frameworks, policies, and practices to identify variations and best practices in balancing IPR and human rights to health.

Case Study Analysis: In-depth examination of case studies related to pharmaceutical patents, compulsory licensing, technology transfer, and other

relevant issues to elucidate real-world challenges and outcomes.

Quantitative Analysis: Statistical analysis of data related to drug prices, affordability indices, and healthcare expenditure to quantify the impact of IPR on access to essential medicines.

Qualitative Interviews/Surveys: Conducting qualitative interviews or surveys with stakeholders such as policymakers, healthcare professionals, pharmaceutical industry representatives, and patient advocacy groups to gather insights into perceptions, experiences, and perspectives on IPR and access to medicines.

3. Ethical Considerations:

Ethical Review: Ensuring ethical considerations in data collection, analysis, and reporting, particularly concerning confidentiality, informed consent, and potential conflicts of interest.

Ethical Frameworks: Drawing on ethical frameworks and principles, such as the right to health, equity, and justice, to guide the interpretation of findings and policy recommendations.

4. Analytical Framework: The research paper adopts an analytical framework that integrates legal, ethical, and policy dimensions to provide a holistic assessment of the challenges and opportunities in balancing IPR and human rights to health.

The analysis is structured around key themes, including patent regimes, access barriers, policy interventions, ethical dilemmas, and potential strategies for achieving a more equitable and sustainable approach.

Strategies for Balancing Intellectual Property Rights and Human Rights to Health:

The critical analysis of balancing intellectual property rights (IPR) and human rights to health, particularly concerning access to essential medicines, necessitates the exploration of strategies that promote equity, innovation, and public health imperatives. This section outlines key strategies for achieving a harmonious balance between IPR protection and human rights considerations in the pharmaceutical sector.

- 1. Flexibilities within Intellectual Property Regimes:** Emphasizing the utilization of flexibilities provided by international agreements, such as compulsory licensing, parallel imports, and government use provisions, to mitigate barriers to access. These flexibilities allow for the production or importation of generic versions of patented medicines, promoting affordability and availability.
- 2. Voluntary Licensing and Technology Transfer:** Encouraging pharmaceutical companies to engage in voluntary licensing agreements, where they grant licenses to generic manufacturers to produce and distribute affordable versions of patented drugs in low-

and middle-income countries. Additionally, promoting technology transfer initiatives to enhance local manufacturing capacity for essential medicines.

- 3. Differential Pricing and Access Programs:** Advocating for differential pricing strategies that take into account income levels and healthcare burdens of different countries, ensuring that medicines are priced affordably based on local economic conditions. Implementing access programs, such as tiered pricing models and patient assistance programs, to enhance accessibility for underserved populations.
- 4. Public-Private Partnerships (PPPs):** Fostering collaborative efforts between governments, pharmaceutical companies, civil society organizations, and international agencies through PPPs. These partnerships can facilitate technology sharing, capacity building, and joint research initiatives aimed at addressing unmet medical needs and improving access to medicines.
- 5. Patent Pools and Collective Licensing:** Supporting the establishment of patent pools or collective licensing arrangements, where multiple patent holders contribute their intellectual property rights to a common pool. This facilitates streamlined licensing processes and reduces transaction costs for generic manufacturers, promoting faster market entry of affordable medicines.
- 6. Health Technology Assessment (HTA) and Evidence-Based Decision Making:** Promoting the use of HTA frameworks and evidence-based decision-making processes to assess the value, efficacy, and cost-effectiveness of medicines. This ensures that healthcare resources are allocated efficiently and prioritized based on public health needs.
- 7. Capacity Building and Knowledge Sharing:** Investing in capacity building initiatives for healthcare professionals, policymakers, and regulators to enhance their understanding of intellectual property issues and their implications for public health. Facilitating knowledge sharing platforms and training programs on IPR, access to medicines, and health economics.
- 8. Advocacy and Policy Reform:** Engaging in advocacy efforts to raise awareness about the importance of balancing IPR and human rights to health. Advocating for policy reforms that promote transparency, accountability, and ethical considerations in pharmaceutical innovation, pricing, and access.

Impact of IPR Regimes on Access to Essential Medicines:

The analysis reveals that IPR regimes have a profound impact on the accessibility, affordability, and availability of essential medicines, particularly in resource-constrained settings. Patented drugs often come with high price tags, creating barriers to access for vulnerable populations and contributing to inequities in healthcare. The discussion highlights the need for measures such as compulsory licensing, parallel imports, and differential pricing to mitigate these access barriers and ensure that essential medicines are affordable and accessible to all individuals, regardless of their socio-economic status.

Legal and Ethical Challenges in Balancing IPR Protection and Human Rights:

The research identifies legal and ethical challenges in balancing IPR protection with human rights to health. While IPR incentivizes pharmaceutical innovation, it also raises questions about the prioritization of commercial interests over public health imperatives. The discussion explores the tension between patent protection and the right to access medicines as a fundamental human right, emphasizing the importance of striking a balance that promotes innovation while safeguarding public health interests.

Practical Implications of IPR on Healthcare Access:

Case studies and examples from different regions illustrate the practical implications of IPR on healthcare access. The analysis reveals disparities in drug pricing and availability across countries, with patented medicines often being unaffordable or inaccessible to those in need. The discussion emphasizes the role of policy interventions, such as voluntary licensing, technology transfer, and public-private partnerships, in promoting access to affordable medicines and fostering innovation in the pharmaceutical sector.

Recommendations and Strategies for a Balanced Approach:

Based on the findings and discussions, the research paper proposes a set of recommendations and strategies for achieving a balanced approach to balancing IPR and human rights to health:

1. Leveraging flexibilities within IPR regimes, such as compulsory licensing and parallel imports, to enhance access to essential medicines.
2. Encouraging voluntary licensing agreements and technology transfer initiatives to promote local production and distribution of affordable medicines.
3. Implementing differential pricing mechanisms based on income levels and healthcare burdens to ensure equitable access.

4. Fostering public-private partnerships and engaging in collaborative efforts to address access challenges and promote innovation.
5. Advocating for policy reforms that prioritize public health objectives, transparency, and ethical considerations in pharmaceutical innovation and pricing.

The discussions highlight the importance of multi-stakeholder collaboration, evidence-based decision-making, and ongoing dialogue in achieving a harmonious balance between IPR protection and human rights to health. By adopting a nuanced approach that recognizes the value of innovation while prioritizing access and affordability, stakeholders can work towards a healthcare system that serves the needs of all individuals, irrespective of their socio-economic status or geographic location.

The critical analysis of balancing intellectual property rights (IPR) and human rights to health, particularly concerning access to essential medicines, has yielded significant insights into the complexities and challenges faced by stakeholders. The results and discussions are structured around key themes and findings emerging from the research, providing a comprehensive understanding of the implications of IPR regimes on healthcare access and proposing strategies for achieving a more equitable and sustainable approach.

Conclusion:

The critical analysis of balancing intellectual property rights (IPR) and human rights to health, particularly concerning access to essential medicines, underscores the complexities and challenges inherent in reconciling these divergent interests. Through a comprehensive examination of legal frameworks, ethical considerations, empirical data, and proposed strategies, this research paper has shed light on key insights and recommendations. Firstly, the evaluation of the impact of IPR regimes on access to essential medicines has revealed significant disparities in pricing, availability, and affordability, particularly in resource-constrained settings.

The analysis has highlighted the need for innovative approaches, such as leveraging flexibilities within IPR regimes, promoting voluntary licensing, and implementing differential pricing mechanisms, to enhance accessibility for underserved populations. Secondly, the exploration of legal and ethical challenges has emphasized the importance of striking a balance between IPR protection and public health imperatives. International agreements and policy interventions, such as compulsory licensing provisions and the Doha Declaration on TRIPS and Public Health, offer avenues for addressing access barriers and safeguarding the right to health. Furthermore, the empirical analysis of case studies and comparative

data has provided valuable insights into practical challenges faced by stakeholders, including governments, pharmaceutical companies, healthcare providers, and patients. This empirical evidence has informed the development of targeted strategies, such as fostering public-private partnerships, promoting technology transfer, and advocating for policy reforms, to address access challenges and promote equitable access to essential medicines.

In conclusion, this research paper advocates for a nuanced and collaborative approach that acknowledges the value of innovation while prioritizing human rights to health. By proposing actionable recommendations and strategies, this study contributes to ongoing discussions and debates surrounding the interface of intellectual property rights and human rights in the healthcare sector. It calls for concerted efforts among stakeholders to implement sustainable solutions that ensure universal access to life-saving treatments as a fundamental human right.

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A Study on the Impact of Digital Marketing on Consumer Buying Behavior in Vijayapur City

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Abstract:

Usage of the internet is gradually increasing due to this 'Digital Marketing' come into existence. To stay in the digitalization world for a longer period traditional marketing cannot be the only strategy for driving sales. It is essential to meet prospective customers who spend an immense amount of time online. Digital Marketing plays a crucial role in creating brand awareness, making publicity of their goods and services. With the immense growth in technology consumer tastes and preferences has been changing because consumers prefer to follow the blend of fashion and taste for that reason customer buying behavior has changed during the purchasing process. The purpose of current research is to determine the factors influencing shopping through digital marketing and to know which digital platforms are used to buy a product. The research is carried out through 25 respondents from Vijayapur city, Karnataka.

Keywords: Digital Marketing, Digital platform

Introduction:

Every business organization utilizes digital platforms like search engines, Social media, email, etc. to retain existing and potential customers. Therefore business organizations started implementing a variety of digital marketing strategies for selling their products and services to their target customers which enables marketers to continuously connect with their prospective customers. Digital media provide an opportunity for marketers to promote a product, and customer interaction during the buying process, and assist the consumers in finalizing the best product among the alternative products.

Millions of people use mobile apps, social media, the internet, and other digital communication tools frequently and they spend an immense amount of time online. Therefore Marketers must analyze and understand how customers behave in the digital age. Today's generation prefers to buy the products over the Internet. consumers use the internet to gather information about the product, price of the product, Quality, Reviews, and pre and post-purchase facilities. A few prominent digital retailers in India are eBay, Amazon.com, Flipkart, Snapdeal, Myntra, Meesho, and others. .

Product Description and specification, convenience to use, reasonable price, customer reviews, product categories, secure payment, etc are some factors that dominate the customers to dowebsopping.

Review of Literature:

(Kr, 2018) discussed in his article consumer purchasing decisions depend on consumer's attitudes

and resource availability. And customers prefer good quality of products. (Tiffany et al., 2018) investigated how digital marketing affects purchasing decisions and according to his research consumers are willing to shop using digital media and are aware of digital marketing. (Rawat, 2023) studied consumer behavior in digital marketing.

Objectives of the study:

1. To find out the factors that influence shopping through digital media platforms.
2. To study the kind of digital platform used for buying products.

Scope of the Study:

Digitalization changed the world of marketing all credit goes to the 'Internet'. Today youngsters are spending a massive amount of time online. This study will therefore help to understand the significance of digital marketing and how it affects consumer purchasing behavior.

Research design

The current research is based on the descriptive study, which describes the characteristics of phenomena. This study is framed to know the influential factors in shopping through digital media platforms. Thus, the research is descriptive.

Collection of Data

For the current study, the method was used to collect the data by keeping in mind the purpose of the study. This study is conducted by using both primary and secondary data.

Primary data were collected directly through the respondents by using a structured

Google Form Questionnaire. Secondary data were collected through articles, Journals, etc

Research Instrument:

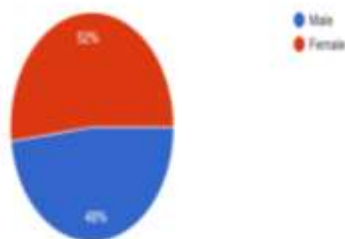
The survey was conducted using a 'Google Form Questionnaire'.

Size of the Sample and Sample Technique: 25 respondents are selected for the survey to collect the primary data and a sample random technique is used to select respondents.

Data Interpretation:

The purpose of this study is to determine the factors that influence online shopping and to know which online platforms are used for purchasing products. For carry out this study 25 respondents are selected randomly. Percentage has been used to analyze the Data.

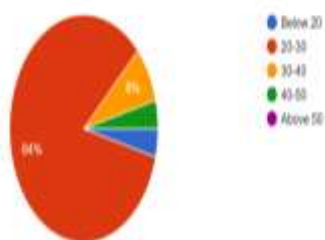
Gender
25 responses



Interpretation:

It clearly shows that out of 25 respondents, 48% are female and 52% male, which means males are using more digital media for shopping as compared to females

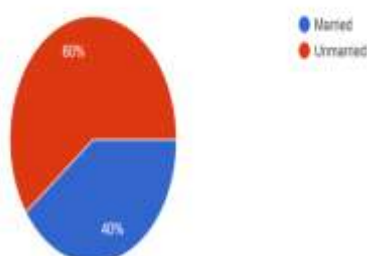
Age
25 responses



Interpretation:

It shows that the young generation is using digital platforms more (84%) for purchasing products than the other age group.

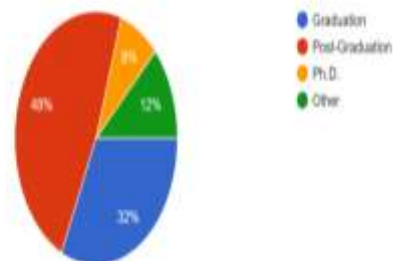
Marital Status
25 responses



Interpretation:

The above pie chart clearly shows that 40% are unmarried and 60% are married. It indicates how the usage of online marketing is being used progressively.

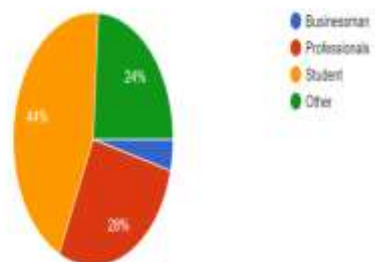
Qualification
25 responses



Interpretation:

out of the 25 respondents, 48% of respondents are post-graduation, 32% are graduates, and 12% are others.

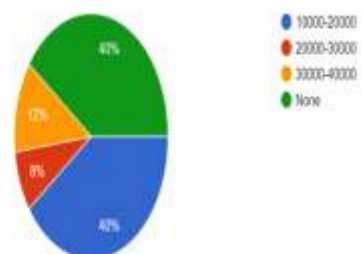
Occupation
25 responses



Interpretation:

It shows that, out of 25 respondents, 44% are students, 28% are professionals, and 24% are others. It means students are spending a massive amount of time online, and prefer to do shopping through digital media.

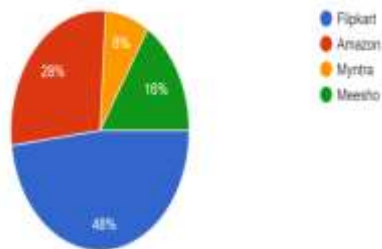
Income
25 responses



Interpretation:

It is clear from the study that out of the 25 respondents, 40% belong to the 10000-20000 range of income level. 12% of respondents are belonging to the 30000-40000 range of income level. it means income level does not have an impact on the purchases

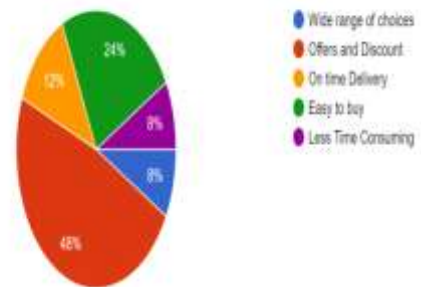
Which of the following digital media platform do you use to buy products
25 responses



Interpretation:

It clearly shows that, out of the 25 respondents, 48% of respondents are willing to buy products from Flipkart and 28% from Amazon. It means customers are more willing to do shopping on Flipkart than on other digital platforms.

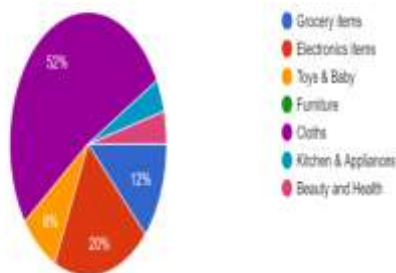
Which of the following attribute attract you more to do online shopping.
25 responsee



Interpretation:

It is evident from the study, that 48% of respondents are attracted by the offers and discounts and 24% are easy to buy. This indicates that these two factors stimulate the customers to shop online.

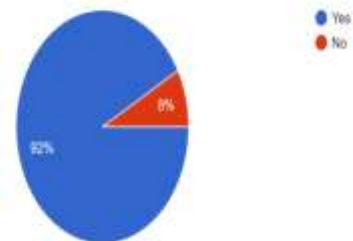
What kind of product would you prefer most to buy through digital media
25 responses



Interpretation:

The study shows that 52% of respondents would purchase clothes, and 20% of respondents would purchase electronic items. This indicates that e-shopping media provides good services for these items.

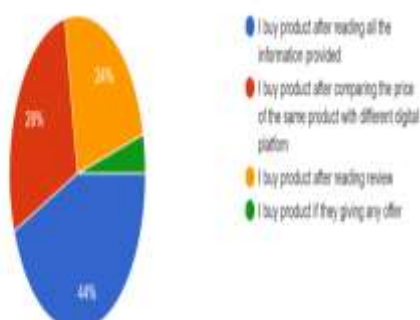
Do you collect information before buying Product
25 responses



Interpretation:

It shows that 92% of the respondents from out of 25 respondents gather details regarding the product before buying it. This means before making a purchase decision customers are more willing to gather the details about the products before making a purchasing choice.

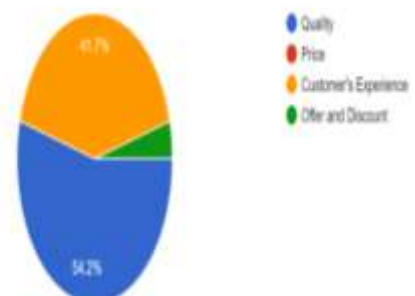
Which of the following procedures do you adopt while buying product.
25 responses



Interpretation:

The study shows that 44% of respondents from out of 25 respondents buy the products after reading all the information about the product.

What kind of information do you collect
34 responses

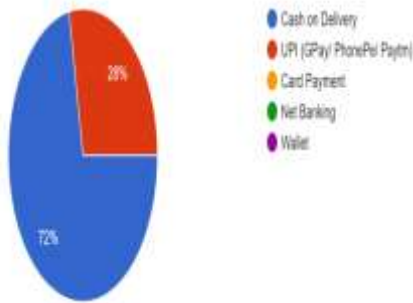


Interpretation:

54.2% and 41.7% of respondents collected information regarding the quality of the products and the customer's experience. It clearly shows that customers prefer good quality products.

think customer's decisions about what to buy are being affected by digital marketing.

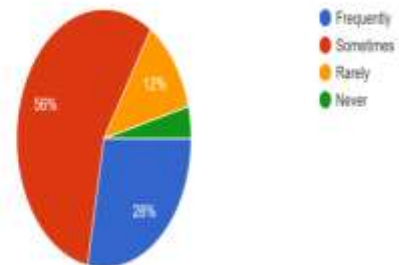
Which mode of payment do you prefer most.
25 responses



Interpretation:

It is evident from the study that 72% of respondents prefer to pay cash on delivery after purchasing a product and 28% prefer to do payment through UPI. This means still customers do not prefer to make online payments after purchase.

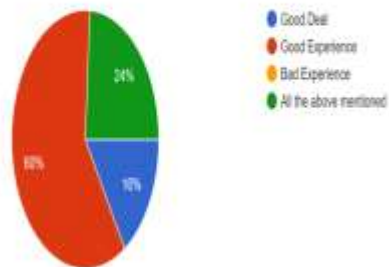
How often do you buy products using digital platform
25 responses



Interpretation:

56% of respondents buy the products sometimes, and 28% frequently buy the products through digital media.

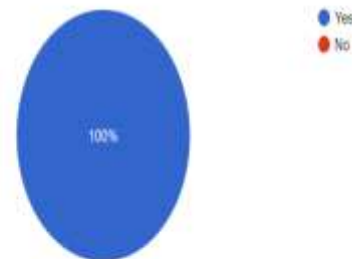
What kind of experience will you share with others?
25 responses



Interpretation:

60% of respondents were willing to express what they liked more about it and 24% of respondents shared the overall purchasing experience with others.

Are you Stratified with what you brought from digital media
25 responses



Interpretation:

It is evident from the study, that out of 25 respondents, 100% are happy with what they received from the digital media.

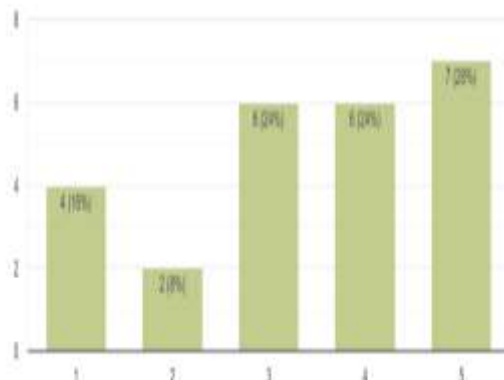
Findings:

From the study, the following findings are drawn;

It is evident from the study, the young generation is using digital platforms more (84%) for purchasing products.

1. Customers are highly satisfied with what they bring from the digital media. (100%)
2. 60% of respondents are keen on expressing their good experience with others this is a positive sign for digital media because positive customer reviews bring more customers.
3. It is evident from the study that 72% of respondents prefer to pay cash on delivery after purchasing a product.
4. It is evident from the study that 92% of respondents are willing to gather information about the products before making a purchase decision.
5. It is evident from the study, that 48% of respondents are attracted by the offers and discounts and 24% are easy to buy

Does Digital Marketing change your behavior towards buying decision
25 responses



Interpretation:

Out of a total of 25 respondents, 28% agreed with this statement. It indicates that they

6. It is evident from the current study that 48% of respondents are eager to purchase products from Flipkart and 28% from Amazon. This means Flipkart provides good services to customers.

Conclusion:

Digital marketing contributes significantly to creating brand value. According to the current study, consumers are happy with what they get from digital media and are eager to shop online and they are satisfied with the services. With the immense growth in digital marketing but still, customers are prefer to cash on delivery payment mode. Marketers should motivate consumers to use online payment modes by offering payment security. The study finds that the income level of the consumer does not affect them while making purchase decisions and they are keen to shop with Flipkart and Amazon, indicating that these two media provide good services and are retaining customers.

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The Evolution of Intellectual Property Rights in India

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Abstract:

Since its foundation, India's intellectual property rights (IPR) environment has experienced considerable alterations, conforming to global norms while also meeting the country's distinct socioeconomic demands. This evolution illustrates India's dedication to supporting innovation while maintaining public interest. The transition from British colonial patent rules to the current TRIPS-compliant framework demonstrates a growing conformity with international norms while being customized to India's developmental aims. The harmonization of legislation, judicial activity, and policy reforms have all led to a strong IPR framework that encourages invention and protects inventors' rights while maintaining access to important services and commodities. Intellectual Property Rights are patents, imprints, trademarks, geographical pointers, protection of undisclosed information, layout designs of integrated circuits, artificial designs and traditional knowledge that are honoured by the Trade Related Intellectual Property Rights agreement (passages) and governed by the WTO (World Trading Organization). In the present composition, development of Intellectual Property Law in India, Evaluation of an International Intellectual Property Regime, New confines and issues for resolution, significance of IPR in developing countries and its impact are mooted in detail.

Keywords: - Development of Intellectual Property Law in India, Evaluation of an International Intellectual Property Regime, Evaluation of an International Intellectual Property Regime, Socio-Economic Development.

Introduction:

Intellectual property rights (IPR) are the foundation for supporting innovation and artistic expression, hence influencing the socioeconomic fabric of society. In India, the evolution of IPR is a story of adapting global principles to local situations while balancing authors' rights with public good. This path has been marked by substantial governmental changes, court interventions, and a rising recognition of the value of intellectual property. As India promotes itself as a worldwide innovation powerhouse, the strategic development of its intellectual property system is critical to economic progress and cultural prosperity.

Preface:

Intellectual property rights are the rights given to persons over the creations of their minds and give the creator an exclusive right over the use of his/ her creation for a certain period of time.

Aim:

The aim of the study on “The Evolution of Intellectual Property Rights in India” is to critically analyse the historical progression and current state of intellectual property laws in India. It seeks to understand how India's IPR framework has adapted to international standards while addressing domestic innovation needs. The study also aims to evaluate the impact of IPR on India's socio-economic development, particularly in fostering innovation,

cultural enrichment, and economic growth within the global intellectual property regime.

Literature Review:

Verma Sneha, (2019), “Intellectual Property Rights and Indigenous Communities in India: Towards Ethical Frameworks”, through an ethical lens, this study examines the relationship between intellectual property rights and indigenous communities in India. It advocates for the recognition of indigenous knowledge systems, the protection of traditional cultural expressions, and the empowerment of indigenous peoples in IP regimes. *Indigenous Policy Journal*, Volume 10, Pages 33-46
Gupta Rahul, (2022), “Pharmaceutical Patents and Access to Medicines in India: Balancing IP Protection and Public Health”, This paper investigates the impact of pharmaceutical patents on access to essential medicines in India, particularly in the context of public health concerns. It discusses the delicate balance between IP protection, affordability, and the right to health, emphasizing the role of flexibilities in patent law., *Journal of Pharmaceutical Policy and Practice*, Volume 15, Pages 45-58

Joshi Vikram, (2023), “Intellectual Property Rights in Digital Media: Trends and Challenges in India”, Focusing on the digital media landscape, this study analyzes the evolving nature of intellectual property rights in India's digital economy. It discusses emerging trends such as streaming

platforms, user-generated content, and copyright enforcement challenges in the digital era., Digital Economy Review, Volume 7, Pages 112-128

Development of Intellectual Property Law in India:

Intellectual Property Right (IPR) in India was imported from the west. The Indian Trade and Merchandise Marks Act 1884, was the first Indian Law regarding IPR. The first Indian Patent Law was legislated in 1856 followed by a series of Acts being passed. They are Indian Patents and Designs Act in 1911 and Indian Brand Act in 1914. Indian Trade and Merchandise Marks Act and Indian Copyright Act have been replaced by Trade and Merchandise Marks Act 1958 and Copyright Act 1957 independently.

The proposition upon which the patent system is grounded on, i.e., an occasion of acquiring exclusive rights in an invention, stimulates specialized process in four ways.

1. Encourages exploration and invention
2. Induces an innovator to expose his discoveries.
3. Offers award for the charges of developing inventions.
4. Provides a persuading to invest capital in new lines of product which might not appear profitable.

Grounded on the R. Ayyangar Committee report, a Bill was introduced in the time 1965 and the bill was passed in the 'Lok Sabha' but it lapsed in the 'Rajya Sabha' and formerly again lapsed in 'Lok Sabha' in the time 1966 due to dissolution of 'Lok Sabha'. But it was greeted in 1967 and passed in 1970; the draft rules were incorporated in Patent Act and passed in the time 1971.

The following way are being suggested with particular reference to the situation in India regarding IPR in the public:-

1. Constitute an intertwined single window National IPR commission to deal with IPR policy issues.
2. Integrate public technology planning with IPR and trends in transnational technology trade.
3. Apply a formal public IPR knowledge charge.
4. Set- up IPR training institutes to prepare technically good attorneys.
5. Introduce an enabling public taxation policy to encourage invention, structure of IPR portfolio and its application in technology transfer and trade
6. Urgently contemporize the IPR executive structures in the country;

Evaluation of an International Intellectual Property Regime

The foundation of International Intellectual Property Protection was created in the 19th century at colourful Congresses in Vienna and the rest of Europe. The protection of Industrial Property was created in Paris Convention in the time 1883.

Patents, Trade Marks and Industrial designs were the three main parcels that were granted protection in this convention. In 1998, India became a member of the Paris Convention. In 1886, International Copyright Act was passed (performing in the architecture of the Berne Convention for the protection of erudite and cultural workshop). The Paris Convention marked the morning of the International Trade Marks Protection laws and introduced the conception of a well known mark. As per Paris Convention Members are concerns, for the countries special unions and whereabouts have been created. Madrid agreement is one special arrangement that was created to regularize the trademarks. Madrid agreement embodies the abecedarian principles outlined in the Paris Convention. During the UN Conference on Trade and Employment, the General Agreement on Tariffs and Trade (GATT) was negotiated and was the protrusion (outgrowth) of the malfunction of negotiating governments to fabricate the International Trade Organization (ITO). In 1949, GATT was formed and until 1993, it lasted, when in 1954 it was substituted by the World Trade Organization.

The World Intellectual Property Organization was created in 1960. It governs the Paris and Berne Convention. In 1967 World Intellectual Property Organization (WIPO) was established by these conventions. In 1977 World Trade Organization (WTO) was created and came an important transnational association for the development and understanding of IPR; successor to the General Agreement on Tariffs and Trade.

The significance of intellectual property in India is well established at all situations- statutory, executive and judicial. India corroborated the agreement bringing into being the World Trade Organization (WTO). This Agreement, inter-alia, contains an Agreement on Trade Affiliated Aspects of Intellectual Property Rights (passages) which came into force from 1st January 1995. It lays down the minimal norms for protection and enforcement of intellectual property rights in member countries which are needed to promote effective and acceptable protection of intellectual property rights with a view to reducing deformations and impediments to transnational trade. The scores under the passages Agreement relate to provision of minimal norms of protection within the member countries legal systems and practices.

The IPR scene in India has experienced a dramatic change since 1995 with the creation of colourful tools of Intellectual Property. IPR is formerly a part of the strategic options in the knowledge industry⁹ In order to insure sustained growth, enhanced gains and request leadership, numerous pots have designed their design operation system for:-

1. Optimized use of inter/ intra knowledge base.
2. Strategic operation of IPR.
3. External channels for knowledge and inventions as inputs.
4. Internal moxie to manage exploration and collaborations.
5. Clarity on knowledge power issues through mutually salutary licenses.
6. Pooling of IPR as in the case of several companies who have formed patent pools of their DVD patents for collective benefits.

The arising scene in the future will seek positive liaison between enhancing competition in society on one hand and establishing legal power of inventions on the other.

Explosively inter-knitted societal, moral and ethical issues are formerly impacting approaches to transnational trade involving technology operation, power of knowledge and business processes.

New confines and Issues for Resolution

As technology explores newer confines and uncharted paths in the coming decades, IPR will assume conducive forms to encourage invention and knowledge sharing in a fiercely competitive network. The amalgamated issues in IPR similar as:-

1. Sphere names and trademarks Brand in cyberspace.
2. Rights on traditional knowledge, previous art, material transfer agreement and bio-prospecting.
3. Software and patents.
4. Biotechnological inventions and moral issues and patents.
5. Mandatory licensing options, border measures and resembling significances and prostration of IPR
6. Government control on import of technology.

The passages Agreement provides for morals and norms in respect of following areas of intellectual property:-

1. Patents
2. Imprints and affiliated rights
3. Trade Marks
4. Geographical suggestions
5. Artificial Designs
6. Layout Designs of Integrated Circuits
7. Protection of Undisclosed Information (Trade Secrets)
8. Factory kinds

Intellectual property rights

1. **Brand and Rights Related to Brand:-** The rights of authors of erudite and cultural workshop (similar as books and other jottings, musical compositions, oils, form, computer programs and flicks) are defended by brand, for a minimal period of 50 times after the death of the author. Also defended through brand and related (occasionally appertained to as "neighboring") rights are the rights of players

e.g. actors, vocalises and musicians), directors of phonograms (sound recordings) and broadcasting associations. The main social purpose of protection of brand and affiliated rights is to encourage and price creative work.

2. **Industrial Property:-** Industrial property is divided into two main areas. The one locale can be regarded as the protection of distinctive signs, in meticulous brand or trademark (which make a distinction the merchandise or services of one enterprise from those of other undertakings or actions) and ecological suggestions (which identify a good as forming in a place where a given specific of the good is principally attributable to its geographical origin). The protection of analogous distinctive signs aims to stimulate and ensure fair competition and to cover consumers, by enabling them to make informed choices between various goods and services. The fortification may last for an indefinite period, handed the check in question continues to be idiosyncratic. Other type of artificial property is safeguarded first and foremost to stimulate innovation, design and the formation of technology. In this order the inventions are defended in the aspects like patents, artificial designs and trade secrets.

The social purpose is to give protection for the results of investment in the development of new technology, therefore giving the impulses and means to finance exploration and development conditioning. Performing intellectual property governance should also grease the transfer of technology in the form of foreign direct investment, common gambles and licensing. The protection is generally given for a finite term (generally 20 times in the case of patents).

While the introductory social objects of intellectual property protection are as outlined over, it should also be noted that the exclusive rights given are generally subject to a number of limitations and exceptions, aimed at fine-tuning the balance that has to be set up between the licit interests of right holders.

Transition Period:

India, as a developing country, had a transition period of five times (with effect from 01 January, 1995) till January 01, 2000 to apply the vitals of the Agreement. A fresh transition period of five times, i.e., till January 01, 2005, is also available for extending product patent protection to areas of technology not defended so far. This would be substantially in the areas of medicinal and agrarian chemicals.

- A. Patents:** Patent is an intellectual property right relating to inventions and it's the entitlement of exclusive rights, for a limited period, handed by the Government to the patentee, in exchange of

full exposure of his invention and banning others, from making, using, dealing, importing the patented product or processes producing that product for any purposes. The purpose of this system is to encourage inventions by pressing their creation and application so as to contribute to the development of diligence, which in turn, contributes to the creation of technological inventions and to the transfer and dispersion of technology. Under the system, Patents insure property rights for the invention for which patent have been granted, which may be extremely precious to an individual or a company. Patents shall be available and patent rights pleasurable without demarcation as to the place of invention, the field of technology and whether products are imported or locally produced.

The trends of patents during the last 25 times continuously in India have their roots in the expression and perpetration of the Indian Patent Act 1970, which came effective from April 20, 1972.

There was a strategic shift from the liberal features of the Indian Patents and Designs Act 1922 to the new governance which introduced restrictive changes related to patenting of inventions especially in the areas of chemicals, medicinal, agrochemicals and foods. The permission of patents for inventions claiming substances intended for use or able of being used as, food, drug or medicine or all substances performing from chemical processes was withdrawn. The conditions for mandatory licensing were also made fairly liberal including the preface of the conception of "license of right" for patents related to medicines, medicinal and foods.

Brand (Copyright):-

The dupe right ensures that computer programs will be defended as erudite workshop under the Berne Convention and outlines how databases should be defended. It also expands transnational brand rules to cover rental rights. Authors of computer programs and procedures of sound recordings must have the right to enjoin the marketable reimbursement of their workshop to the public. A analogous exclusive right applies to flicks where marketable reimbursement has led to wide brand, affecting brand- possessors implicit earnings from their flicks. The players must also have the right to help unauthorized recording, reduplication and broadcast of live performances for not lower than 50 times. Directors of sound recordings must have the right to help the unauthorized reduplication of recordings for a period of 50 times.

B. Trade Name (The Business Insignia):- Trade Name, Business Label or the Business Insignia have been distinct as any symbol, or any grouping of marks able to personalise or distinct the commodities or services of one deal (undertaking) from those of other

undertakings. Similar identifying marks constitute protectable subject matter. The Agreement provides that original enrolment and each renewal of enrolment shall be for a term of not lower than 7 times and the enrolment shall be renewable indefinitely. Mandatory licensing of trademarks is not permitted.

Keeping in view the changes in trade and marketable practices, globalization of trade, need for simplification and adjustment of trademarks enrolment systemised., a comprehensive review of the Trade and Merchandise Marks Act, 1958 was made and a Bill to repeal and replace the 1958 Act has ago been passed by Parliament and notified in the review on December 30, 1999. This Act not only makes Trade Marks Law, TRIPS compatible but also harmonizes it with transnational systems and practices. Work is on the go to bring the law into force.

Geographical Suggestions:

Geographical suggestions of goods are defined as that aspect of artificial property, which adverts to the geographical suggestion pertaining to a country or to a place, positioned there's as being the country or place or origin of that product. The given product should have a specific geographical origin and cortege's rates or a character due to that place of origin. A place name is occasionally used to identify a product. This geological offer not only consigns to where the manufactured goods were prepared, but more significantly, it makes out the product's extraordinary quality which are the outgrowth of the products origin. Using the place name when the product was made away or when it doesn't have the usual characteristics can mislead consumers, and it can lead to illegal competition. Some exceptions are allowed, for illustration if the name is formerly defended as a trademark or if it has come a general term.

C. Industrial Design: An artificial design is that aspect of a useful composition, which is cosmetic or aesthetic. It may correspond of three- dimensional features similar as the shape or face of the composition, or two- dimensional features similar as patterns, lines or colour. Artificial design is applied to a wide variety of products of assiduity or handcraft; from watches, jewellery, fashion and other luxury particulars to artificial and medical tools; from house earthenware, cabinetwork and electrical appliances to vehicles and architectural structures, from practical goods and cloth designs to rest particulars, similar as toys and pet accessories. A fresh designs law revoking and putting back the Designs Act, 1911 has been passed by Assembly (Legislature) in the Budget Session, 2000. This Decree has been put into force from May 11, 2001.

D. Layout Designs of Integrated Circuits: - A “layout- design (geomorphology) ” is defined as the three dimensional disposition, still expressed, of the rudiments, at least one of which is an active element, and of some or all of the interconnections of an intertwined circuit, or such a three dimensional disposition prepared for an intertwined circuit intended for manufacture. The compulsion to cover up layout- designs pertains to parallel layout- designs that are unique (original) in the sense that they are the result of their generators enjoy intellectual trouble and aren't widespread (of place) amongst producers of blueprint- plans and manufacturers of integrated circuits at the point in time of their formation. The exclusive rights include the right of reduplication and the right of importation, trade and other distribution for marketable purposes.

E. Protection of Undisclosed Information:- The protection must apply to information that's secret, which has marketable value because it's a secret and that has been subject to reasonable way to keep it a secret. That doesn't bear undisclosed information to be treated as a form of property, but it does bear that a person lawfully in control of similar information must have the possibility of precluding it from being bared to, acquired by, or used by others without his/ her concurrence in a manner contrary to honest marketable practices. “Manner negative to honest marketable practices” includes breach of contract, breach of confidence and persuading to breach, as well as the accession of undisclosed information by third parties who knew, or were grossly careless in failing to know, that similar practices were involved in the accession.

F. Plant Kinds: The protection of new factory kinds is another aspect of intellectual property rights, and as similar seeks to admit the achievements of breeders of new factory kinds by providing them, for a restricted time period, a special right. To gain similar protection, the new kinds must satisfy specific criteria. Variety is defined as a factory grouping within a single botanical taxon of the smallest given rank. Handed that the condiment should be new or new, distinct, livery, stable and have a satisfactory denotation. The association overseeing the protection of new factory kinds is appertained to as UPOV (The International Union for the Protection of New kinds of shops).

Socio-Economic Development:

Socioeconomic development is inextricably linked to intellectual property rights, which serve as accelerators for growth and innovation. By providing legal protection for creations, IPR

encourages research and development, resulting in technical improvements and economic growth. It also promotes a competitive market, encouraging firms to innovate and grow. Furthermore, IPR promotes job growth and better salaries by bolstering sectors that rely on innovation and knowledge. However, it is critical to ensure that IPR does not impede access to necessary commodities, especially in poor nations. Effective IPR regimes can thus help governments achieve their developmental goals while guaranteeing equal benefit distribution.

Conclusion:

IPR are considered to achieve profitable, social and technological advancement that protects the ideas and stimulates invention, design and helps to the creation of technology. The colourful types of IPR were designed to give the formal base of power of advanced knowledge with benefit sharing between mates in invention to produce a niche of themselves. It also leads to wealth creation. The function of IPR governance is also to grease the transfer of technology in the form of common gambles and licensing.

The social purpose of IPR is to give protection for the results of investment in the development of new technology, therefore giving the incitement and means of finance for farther exploration and development of knowledge base; while introductory social ideal of IPR protection is that the exclusive rights given to the innovator, aimed at fine tuning the balance that has to be formed between the licit interests of rights holders.

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Role of Freedom of Speech and Expression and Copyright in Digital World

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Abstract:

The relationship between copyright law and freedom of expression has always been controversial, but this tension has deepened in recent years with the emergence of the digital environment and expansion of copyright law. As India is one of the biggest constitutions in world where everyone has a right to speech and expression. Freedom of expression in India is enshrined as a fundamental right under Article 19(1)(a) of the Constitution of India. It guarantees to all citizens the right to freedom of speech and expression, subject to certain restrictions outlined in Article 19(2). These restrictions include concerns related to public order, decency, morality, security of the State, defamation, incitement to an offense, and sovereignty and integrity of India. On the other hand Indian copyright law is governed primarily by the Copyright Act of 1957, which has been subsequently amended to keep pace with technological advancements and international obligations. The Act provides protection for various types of creative works, including literary, artistic, musical, and cinematographic works, as well as computer programs and sound recordings. The Internet has allowed an unprecedented increase of possibilities for information sharing and, arguably, a dramatic increase in the enjoyment of freedom of expression by everyone. In this rapidly changing environment, it is not only the enforcement of copyright that has been put into question but also its moral legitimacy. The conflict between freedom of expression and copyright raises a few important normative issues. This paper will discuss about some normative issues raised by the direct copyright control that some corporations assert over the use of cultural and intellectual works. The paper will also discuss about the proliferation on online platforms ranging from social media to new portals.

Keywords: Fundamental rights, Copyright, Digital media.

“Without freedom of thought, there can be no such thing as wisdom, and no such thing as public liberty, without freedom of speech.” By Ben Franklin

In this digital era, where especially the young generation, in particular experiencing thriving technology, and with the flow of this, the fine line between free speech and democracy is getting merged. At this point in time, the question arises that are we having the freedom to exercise our right to speech and expression in the genuine sense. The digitized world has brought countless benefits, however, with this it has brought problems as well for instance questioning accountability and detectability without encroaching on one's privacy in the digital era. Communication and expression have undergone a significant upheaval with the advent of the digital age, profoundly changing how people interact, share ideas, and participate in public debate. India, a country with a long history of democracy, a diversified population, and a fast-expanding digital presence, is a key market for this shift. The idea of freedom of digital speech has evolved as a crucial and developing component of India's democratic fabric in this era of unparalleled connectivity and information accessibility. The Constitution of India enshrines the right to freedom of speech and expression as the cornerstone of every strong democracy. Now it is a time where people can use online platforms to express their freedom of speech, criticism, and engagement in public debate. The internet domain has converted into a dynamic space where people may interact with public discourse,

express social issues, and influence public narratives. It has evolved into a fictitious town square that crosses all geographical barriers and spans the gaps created by space and time. Now the discussion arises the effect on freedom of speech and copy right through digital shift.

In India, the tale of the digital era is not merely one of technology development but also one of social change, political action, and cultural growth. It tells the tale of how the internet sparked social movements, amplified underrepresented voices, and encouraged civic involvement. In addition, it is a story characterized by worries about digital divisions, invasions of privacy, online bullying, false information, and the duties of online platforms. This digital era has revolutionized freedom of speech through global reach where digital platforms such as social media, blogs, and online forums have provided individuals with unprecedented reach and influence. Anyone with internet access can share their thoughts, opinions, and ideas with a potentially global audience, breaking down traditional barriers to communication. Through citizen journalism and online activism, we can da democratized the news media landscape.

Through this every individual can now report on events, share eyewitness accounts, and disseminate information in real-time, often bypassing traditional gatekeepers as well as bring social reform through grassroots campaigns to large-scale protests, social media and online organizing have enabled individuals to mobilize and advocate for social, political, and environmental change on a global scale. Other factors of democratizing potential of the internet, governments

and other entities have sought to regulate and control online speech. Censorship, content moderation, and surveillance pose significant challenges to freedom of speech in the digital era, with governments imposing restrictions on online expression in the name of national security, public safety, or social harmony. There is major effect of digital media is proliferation of misinformation and disinformation on digital platforms poses a serious threat to freedom of speech and democratic discourse. False or misleading information can spread rapidly online, influencing public opinion, undermining trust in institutions, and eroding the foundation of democratic societies. The digital era has raised complex legal and ethical questions regarding freedom of speech, including issues such as hate speech, online harassment, defamation, and the balance between free expression and other rights and interests. Debates continue over the appropriate legal frameworks and policies to address these challenges while upholding fundamental rights.

The digital shift in India has both expanded and challenged freedom of speech. On one hand, the internet and social media platforms have provided individuals with unprecedented opportunities to express themselves and share their opinions. However, there have been concerns about censorship and content regulation, particularly with the rise of fake news, hate speech, and misinformation. The Indian government has enacted various regulations and laws, such as the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, which require social media platforms to comply with certain regulations, including content takedown requests. Critics argue that these regulations could potentially stifle free speech and lead to censorship.

The digital shift has also had a significant impact on copyright laws in India. With the proliferation of digital content and online platforms, issues such as piracy, unauthorized distribution, and fair use have become more prevalent. The Indian government has introduced amendments to copyright laws to address these challenges, such as the Copyright (Amendment) Act, 2012, which aimed to update copyright laws to better align with the digital age. Additionally, the rise of digital streaming platforms has led to new licensing agreements and revenue models for content creators and rights holders. However, enforcement of copyright laws in the digital realm remains a challenge, with piracy and copyright infringement still widespread.

Freedom of speech and expression plays a crucial role in the realm of copyright law, as it intersects with major key principles and considerations:

Balancing Rights: Copyright law grants creators exclusive rights to their works for a limited time, incentivizing creativity and innovation. However, these rights are not absolute and must be balanced with the right to freedom of speech and expression. This balance is critical to ensure that copyright does not unduly restrict the dissemination of ideas, information, and cultural expression.

Fair Use/ Fair Dealing: Many copyright regimes include exceptions and limitations, such as fair use in the United States or fair dealing in other jurisdictions. These provisions allow for the use of copyrighted works without permission from the copyright holder under certain circumstances, often including purposes such as criticism, comment, news reporting, teaching, scholarship, or research. These exceptions help safeguard freedom of speech by enabling the use of copyrighted material for purposes such as commentary, parody, or political discourse.

Public Interest: Copyright law is ultimately designed to serve the public interest by promoting the creation and dissemination of creative works. Freedom of speech and expression is integral to this goal, as it ensures that individuals can engage in robust public debate, artistic expression, and cultural dialogue without undue constraint from copyright holders.

Access to Information: Freedom of speech and expression facilitate access to information, ideas, and knowledge, which are essential for a functioning democracy and the advancement of society. Copyright law should not impede this access unnecessarily but should instead strike a balance that fosters creativity while also allowing for the free flow of information and ideas.

Transformative Works: Freedom of speech and expression often intersect with the concept of transformative works, where existing copyrighted material is repurposed or reimagined in new creative contexts. Transformative works can include things like remixes, parodies, or derivative works that build upon or critique existing material. These works can be important vehicles for artistic expression, social commentary, and cultural innovation, highlighting the need for copyright law to accommodate such uses.

By making people inform we can overcome the negative effects of media on freedom of speech. We can make people aware about the multifaceted approach that addresses both systemic issues and individual behaviours. Here are some strategies:

Media Literacy Education: Promote media literacy programs from an early age to help individuals critically evaluate and analyse media content. Teach skills such as fact-checking, source verification, and critical thinking to empower people to discern credible information from misinformation.

Diverse Media Consumption: Encourage diverse media consumption habits by seeking out a variety of sources and perspectives. Expose yourself to viewpoints that challenge your beliefs and avoid staying within echo chambers. Platforms and initiatives that promote diverse voices and perspectives should be supported and promoted.

Regulation and Policy: Advocate for transparent and accountable regulatory frameworks that protect freedom of speech while addressing harmful content, such as hate speech, incitement to violence, and misinformation. Ensure that regulations are implemented in a manner that upholds fundamental rights and does not unduly restrict legitimate expression.

Media Ownership and Plurality: Support policies that promote media plurality and diversity of ownership to prevent undue influence by a few powerful entities. Encourage a vibrant and competitive media ecosystem that fosters a range of voices and viewpoints.

Digital Literacy and Online Safety: Promote digital literacy initiatives that educate users about online safety, privacy protection, and responsible online behavior. Provide resources and support for individuals facing online harassment or abuse to mitigate the chilling effect on freedom of speech.

Transparency and Accountability: Advocate for greater transparency and accountability from media organizations and online platforms regarding their content moderation practices, algorithms, and decision-making processes. Hold platforms accountable for enforcing their terms of service consistently and transparently.

Civil Dialogue and Engagement: Foster a culture of civil dialogue and respectful engagement both online and offline. Encourage constructive discourse and active participation in public debates while discouraging harassment, trolling, and toxic behaviour.

Support Independent Media: Support independent media outlets that adhere to ethical standards and provide quality journalism. Recognize the importance of investigative reporting and support initiatives that promote media sustainability and press freedom.

Legal Protections and Advocacy: Advocate for robust legal protections for freedom of speech, including protections against censorship, defamation lawsuits, and other forms of retaliation. Support organizations and initiatives that defend freedom of expression and provide legal assistance to individuals facing threats to their speech rights.

Conclusion:

In this digital era, the fine line between free speech and democracy is becoming intertwined, raising questions about the genuine exercise of our right to speech and expression. The impact of the digital shift on freedom of speech in India is multifaceted. While the internet and social media platforms have provided unprecedented opportunities for individuals to express themselves, concerns about censorship, fake news, and hate speech have emerged. The Indian government has enacted regulations to address these issues, but critics worry about potential censorship and infringement on free speech. The digital era has also affected copyright laws, with challenges such as piracy and fair use becoming more prevalent. Balancing the rights of creators and freedom of speech is crucial in copyright law, as is ensuring access to information and promoting transformative works. Overcoming the negative effects of media on freedom of speech requires strategies such as media literacy education, diverse media consumption, transparent regulation, and supporting independent media. Advocating for legal protections and fostering civil dialogue and engagement are also essential.

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Human Trafficking

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Introduction:

Human trafficking is the trade of humans for the purpose of forced labour, sexual slavery, or commercial sexual exploitation. Human trafficking can occur within a country or trans-nationally. It is distinct from people smuggling, which is characterized by the consent of the person being smuggled. Human trafficking is condemned as a violation of human rights by international conventions, but legal protection varies globally. The practice has millions of victims around the world.

Keyword: introduction, smuggling, commerce, sexual, children kidnapped, labour work purposes, labour privatisation, marriage Target, conclusion.

Before accepting any tempting offer of employment, study or Marriage in India or abroad from friends or casual acquaintances, discuss all details with your family, relatives and experts. Human trafficking has received increasing global attention over the past decade. Initially, trafficking of women and girls for forced sex work and, to a lesser extent, domestic servitude, were the sole focus of advocacy and assistance. Today, there is recognition that women, children and men are trafficked into many different forms of labour, and for sexual exploitation. Labour-related trafficking occurs in a wide range of sectors, such as agriculture, fishing, manufacturing, mining, forestry, construction, domestic servitude, cleaning and hospitality services. Trafficked people may also be forced to work as beggars or soldiers, and women and children can be made to serve as 'wives'. The most widely accepted definition of human trafficking is found in the United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons.

Smuggling: The business of human trafficking is increasing in a developing country like India. In this country, women and children are becoming the biggest victims of this problem. Mostly tribal women are lured with money by people involved in this business and taken from rural areas to urban areas and sold.

Commerce: businessman If seen from the point of view of science, here people take women and children to cities for the purpose of giving them jobs and give them jobs like sweeping and mopping, daily wages in hotels, commercial establishments, and industrial work. They take them for the purpose of work and also get some small work done in some cities.

Sexual: People who do not have children buy women and take them away. There are some people who take women from rural areas and sell them in brothels in big cities. There are many cities in this country where this business is flourishing like Delhi, Calcutta, Mumbai etc. There is a huge market for Nepali girls in India.

Children kidnapped: In modern world child trafficking is also being seen in abundance. In the present times, stealing children, selling them in the markets, with the intention of putting them in big buildings being constructed is happening. Theft is done out of greed for money. There are some hospitals in the country where big doctors charge money for removing human body parts and implanting them in other people. This is a serious problem.

Labour work purposes: In the states of Uttar Pradesh, Bihar and Punjab, children and entire families are taken to farms for the purpose of working there, where they are made to do agricultural work. There is a flat land, a lot of agricultural work is done here. Tractors are required for ploughing and labourers are required for weeding the fodder. Some capitalists keep the labourers in their homes and use them to run hotels, shops, restaurants apart from agriculture. Hand over the responsibility.

Labour privatisation: Today's modern era is developing and this development work is done through contractors. Labour is required to do all kinds of work and in this way, rural people are taken for the purpose of providing them work. In today's time, most of the rural people who have agricultural land, large population, and there is pressure of lifestyle, unemployment increases, i.e. year-round work is not available, then people move from one city to another in search of work. People migrate from many parts of the country by travelling by trains. For example,

people from Bihar, Jharkhand, UP, MP, CG go to big cities like Mumbai, Gujarat, Chennai, Tamil Nadu, Delhi, Haryana, Punjab, Rajasthan etc. They go and settle there, where they get ample work, which is done under.

Marriage Target:

The process of getting married and eloping for marriage is in vogue. Instead of following the government rules, some tribal young boys and girls elope and get married of their own free will. This method has also become a problem in Indian society.

Conclusion:

Through the above conclusion it can be said that human trafficking takes place in India like the rest of the world. The Indian government has not been able to stop this crime till now, some compulsions of the people also force them into this profession and some have a desire to work which motivates them to improve their lifestyle, but even today it has a negative impact.

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Human Rights: An Analysis of Women's Human Rights

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Abstract:

Human rights are the fundamental, equal, and unalienable rights that every person must have in order to be a part of the global human community, regardless of gender, nationality, ethnicity, language, race, religion, or any other factor. Although the Indian Constitution promises equal rights to men and women without discrimination and acknowledges these rights in the form of different fundamental rights, it is not possible to say that the state of women's human rights in India is good. In the spheres of politics, the economy, family, and personal life, women require support and empowerment. The position of women can be significantly altered and redefined by modifications based on verbal persuasion, affective status, and modelling behaviour. Every time a female-related issue makes headlines, it is handled as a singular problem—a type of tumour that may be surgically removed. Never once is an attempt made to enlist the community's help in order to identify the problem's origins. In addition to attempting to explain the notion, meaning, and many procedures of human rights, the study also attempted to evaluate how and why, despite being human, women are occasionally denied access to their fundamental natural rights or human rights. Women's safety, protection, and enforcement can be guaranteed by a proper understanding of their rights. The time has come for true equality to guarantee the best rights, a more democratic society, and the protection and wellbeing of women. The goal of the new social-globalization notion is to offer women's identities more dimensions. This article aims to provide an outline of the implications of globalization for Indian women and the extent to which these forces have succeeded in changing the position of Indian women. Since the beginning of time, women have been recognized as important agents of sustainable development, and a more comprehensive strategy for creating new patterns and procedures of sustainable development is considered to depend heavily on the equality and empowerment of women.

Keywords: Human Rights, Analysis, Women, Discrimination, Safety, Enforcement

Introduction:

The future of women's human rights is in jeopardy everywhere. Only until a woman has access to her rights—which include equal pay, the freedom to possess property, sexual rights, freedom from abuse, access to education, rights to maternity health, and rights to sexual and reproductive health—will there be true equality. Only when women have an equal political voice and assume leadership and peacemaking responsibilities will nations and economies change and all women will achieve the independence to which they are entitled. International conventions and rules prohibit discrimination against women; nonetheless, it is imperative to have a comprehensive understanding of the local economic, political,

social, and cultural milieu in order to ensure that these standards and norms are applied at the grassroots level (Mironga et al. 2022).

The population is 50% made up of women. Women have an innate right to utilize the human rights bestowed upon them by the government, as they are human. Nevertheless, in spite of the existence of many mechanisms at a level, the violation of women's human rights has spread throughout society (Sharma, 2022). Therefore, intellectual conversations about these topics are highly important in such a setting. By means of scholarly discourse or consideration, it might be feasible to identify the causes of these problems, and the knowledge gained there might one day aid in solving the issue (Bunch, 1990).

Hillary Clinton, the first lady of the United States at the time, famously declared at the Beijing Conference in 1995 that "human rights are women's rights and women's rights are human rights." "Women must enjoy the right to participate in the social and political lives of their country," the speaker continued (Haarr, 2010).

In addition, women make up 22% of the workforce in India, with the majority of them working in the unorganized, temporary, and migrant sectors. However, states frequently do not include migrant workers in their labour regulations, depriving them of benefits and job security. Additionally, they are favoured in "soft" industries that requires unskilled to semi-skilled labour, like garment, shoe and toy manufacturing, computer processing, semiconductor assembly, etc. As a result, their salary is so low that they are unable to meet their basic needs (Viswanathan, 2008).

India is a democratic republic that has the world's second-largest population, including women. With so many ups and downs, women's status in India has been inconsistent. The VEDIC Age, which lasted from 1500 to 1000 BC, saw their devotion as goddesses. Their standing rapidly declined during the Muslim era, which lasted from 1026 to 1756 AD, and under the British rule, they were despised as "slaves of slaves" (Sachdeva 1998, p285). Because they are women, women everywhere still experience discrimination, injustices, and many sorts of abuse. "One half of the world's population is systematically discriminated against and denied opportunity for the crime of having the female chromosome," claims Watkins (1995). Legal processes continue to propagate violations of human rights, institutionalise discrimination, prejudice, and gender inequality, and deny women adequate legal protection, recompense, counselling, and therapy (ICJ, 2020).

Methodology:

This paper employs a descriptive, exploratory, and explanatory research methodology to examine the causes of violations of women's human rights and to provide potential solutions based on the secondary data.

An Analysis of Women's Human Rights:

The minimal, equal, and unalienable rights that every person must have in order to be a part of the global human community,

regardless of gender, ethnicity, language, race, religion, nationality, or any other factor, are known as human rights. A safe environment, freedom of speech and expression, equality, the right to life, the right to live with human dignity, the right to oppose discrimination, and the right to freedom of expression are among the universal rights. Due to India's signature on the Universal Declaration of Human Rights, all of these rights were acknowledged by the international community in 1948. India is a party to the United Nations Convention on the Elimination of All Forms of Discrimination Against Women (1979) as well as the International Covenant on Economic, Social, and Cultural Rights which was established in 1966 (Singh, 2022). Human rights are essential to a person's existence because they allow them to live a safe, honourable, and polite life in society. They're necessary to ensure 'excellent' and qualitative human survival (Das, 2005). The tremendous achievement of global women's rights activists' efforts to put an end to the historical indifference of human rights crimes against women was demonstrated at the June 1993 World Conference on Human Rights. It might be argued that, 25 years after the previous global conference on human rights, the World Conference only truly addressed the issue of setting a forward-looking agenda with regard to women's human rights. The conference brought gender-specific abuses of human rights to the forefront of the international human rights agenda. The Vienna Declaration and Programme of Action, the conference's final statement, urges for the inclusion of women's human rights in all UN initiatives and lists specific instances of gender-specific abuses as violations of human rights (Sullivan, 1994). Women's rights are routinely infringed in the public sphere, in the family, in homes, and in daily life. Women suffer silently in patriarchal societies when they are denied personal freedom and constrained by laws imposed by men who are seen as superior. Article 15 of the Indian Constitution prohibits discrimination against people on the basis of sex, caste, religion, or race. The Protection of Women from Domestic Violence Act, the (anti)Sati Act, and the Dowry Prohibition Act are only a few of the complex laws that safeguard Indian women's rights. However, appropriate implementation is required (Chhibber, 2018). The Universal Declaration of

Human Rights declares that every child must receive a free elementary school education, recognizing the essential role that education plays in enabling people to participate in all aspects of life socially, economically, and politically (Council of Europe, 2022). Major conferences and conventions have been held at national and international levels. In a similar manner, many laws and acts are being made by governments to give protection to women and make them legally stronger against any type of discrimination. The Universal Declaration of Human Rights that enshrines equal rights for men and women and addresses issues of equity and equality was adopted in 1948 (UN, 2022). Preceding this was the setting up of the Economic and Social Council (ECOSAC), an organ of the United Nations which established the Commission on the Status of Women (CSW) in 1946 (UN Women, 2022). Some of the major international ones are International Women's Day (1908), Commission on the Status of Women (1946), Equal Remuneration Convention (1951), United Nations Convention on the Elimination of Discrimination against Women (1967), International Year of Women (1975), First Women Conference (1975), Convention on the Elimination of all forms of Discrimination against Women (1979), the United Nations Development Fund for Women (UNIFEM) (1996) and the United Nations Division for the Advancement of Women (DAW) (1982) (Kumar, 2014). Women's human rights became a global initiative during the United Nations Decade for Women (1976-1985) when women from all walks of life got together and organized themselves to improve their status and position. Numerous women's conferences were organised throughout this decade, including one in Mexico City in 1975, another in Copenhagen in 1980, and another in Nairobi in 1985 to assess the situation of women and devise plans for their advancement (Pietilä, 2007; Adami & Plesch, 2022) (Mironga et al. 2022).

Conclusion:

The majority of women in nations like India are deprived of government subsidies, labour rights protection, social security payments, and other perks. However, there are also options for improved educational facilities and international opportunities that appeal greatly to the rich minority (Mishra, 2018). International human rights treaties mandate that

women's rights be protected by both national and international law, including freedom from discrimination of any kind, liberty and security, marriage and the establishment of families, privacy and family life, information and education, access to health care, and the advantages of scientific advancement. The task facing feminists is to utilise their analytical techniques on international human rights law to address the legal disregard for women's reproductive health. Every significant human rights treaty has a reporting mechanism in place (Cook, 2020).

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Intellectual Property Rights in India: An Overview

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Abstract:

“Intellectual Property Rights in general refers to the set of intangible assets including invention, creation, and contribution to the contemporaneous field of knowledge which is owned and legally protected by an individual or company from the outside use or implementation without approved consent. The economic growth, financial incentive and motivation for advanced innovations imbedded in the balanced legal protection of Intellectual Property Rights entails proficient, directed and timely updated guidance in the field of Intellectual Property Rights. This Paper highlights Meaning, Definition, Type, importance, need and Benefits of IPR.”

Keywords: IPR, Patents, Copyright, Designs, Trade Marks,

Introduction:

Intellectual property (IP) refers to any original work or innovation that is deemed to belong to its author. Legal systems typically recognize and safeguard intellectual property rights, which grant owners certain exclusive privileges, including the ability to distribute their work in multiple markets, license the production and dissemination of their inventions, and pursue legal action against unlawful or fraudulent copying. Copyright, trademarks, patent, industrial design rights, and trade-secrets are among the most prevalent forms of IPRs.

The majority of intellectual property laws, with the exception of trademark laws, have a common goal of fostering progress by granting creators limited exclusive rights in return for disclosing their inventions and creative works. This arrangement benefits both society and the owners of patents and copyrights, as it provides an incentive for inventors and authors to produce and share their work. By granting exclusive rights, intellectual property owners can derive financial benefits from their creations, which encourages investment in intellectual property and helps cover the expenses related to in the case of patents, innovation and research.

Meaning and Definition of IPR

Intellectual property laws provide individuals with the right to possess and benefit from their creative, scientific, and technological innovations for a specified period. Inventors are granted ownership over a range of intangible assets, including concepts, business methodologies, inventions, musical compositions, written works, artistic expressions, discoveries, language elements, expressions, symbols, and designs. The primary goal of Intellectual Property Rights is to stimulate innovation by safeguarding and encouraging the

utilization of inventions. This, in line, provides for the advancement of industries, fostering technological progress, and facilitating the transfer and propagation of technology.

Definition According to WTO

“Intellectual property rights are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time.”

Types of Intellectual Property

Intellectual property encompasses two primary domains: industrial property, which primarily concerns the safeguarding of innovations, and copyright, which serves as a shield for literary and artistic creations. Industrial property encompasses a range of facets including patents, industrial designs, trademarks, service marks, integrated circuit layout designs, commercial appellations, geographical indications, and protection against unfair competition. On the other hand, copyright pertains to the realm of artistic endeavors such as books, music, paintings, sculptures, films, computer programs, and electronic databases.

Across many European languages, copyright is often referred to as author's rights, underscoring the notion that authors wield exclusive rights over their works, encompassing the authority to forestall distorted reproductions. The term copyright specifically denotes the act of duplicating literary and artistic works, a task strictly contingent upon the author's consent. Conversely, additional rights, such as the right to duplicate, may be conferred upon third parties, including publishers who have acquired a license from the author.

The Importance of Intellectual Property Rights

Intellectual property rights hold substantial significance and value the ingenuity and originality stemming from an individual's intellect and creativity. Consequently, they carry numerous implications, some of which encompass the following:

1. Intellectual property rights serve as both incentives and acknowledgments for individuals, authorities, nations, institutions, or organizations involved.
2. They foster innovation and contribute to an enhanced quality of life. Industrial designs play a pivotal role in enhancing a product's attractiveness, thereby adding to its commercial worth and bolstering its market appeal.
3. Similar to the qualities of a superior product or service, the components of a compelling advertisement often become subjects of imitation or replication by others. Hence, it's unsurprising that various types of intellectual property rights frequently come into play when creating content for advertisements or executing advertising campaigns.²

What is the need for IPR?

National Intellectual Property Policy - Creative Humanity's progress and well-being are dependent on its ability to create and invent new works in the fields of technology and culture.

1. Promotes innovation: Legal protection for new creations promotes the commitment of additional resources for future innovation.
2. Economic growth: Promoting and protecting intellectual property stimulates economic growth by creating new jobs and industries, as well as improving the quality and enjoyment of life.
3. Protect creators' rights: IPR is required to protect creators and other producers of their intellectual commodity, goods, and services by granting them time-limited rights to control the use of manufactured goods.
4. It fosters innovation and creativity while also ensuring ease of doing business.
5. It promotes technology transfer through foreign direct investment, joint ventures, and licencing.

Benefits of IPR

1. Encouraging innovation
2. Sharing knowledge
3. Protecting the creator
4. Development of work
5. Commercial benefits
6. Allow public use of work

Overview of Intellectual Property Rights in India

The need for a system to protect IP internationally arose when foreign exhibitors refused to attend an International Exhibition of Inventions in Vienna in 1873 because they were afraid that their ideas would be stolen and exploited

commercially in other countries. This led to the creation of the Paris Convention for the Protection of Industrial Property of 1883. The Paris Convention was the first major international treaty designed to help the people of one country obtain protection in other countries for their intellectual creations, in the form of industrial property rights. In 1886, copyright entered the international arena with the Berne Convention for the Protection of Literary and Artistic Works. In 1893, these two small bureaus united to form an international organization called the United International Bureaus for the Protection of Intellectual Property – best known by its French acronym, BIRPI. Based in Berne, Switzerland, with a staff of seven, BIRPI was the predecessor of what is today known as the World Intellectual Property Organization or WIPO (established on 1970). WIPO is a specialized agency of the UN, with a mandate to administer IP matters recognized by the UN Member States. There are about 21 international treaties in the field of intellectual property, which are administered by WIPO.

The treaties fall into three groups namely treaties, which establish international protection; treaties, which facilitate international protection and treaties, which establish classification systems. India is also a member of the World Trade Organization (WTO established in 1995). WTO agreements on Trade Related aspects of Intellectual Property (TRIPS). This Agreement made protection of intellectual property an enforceable obligation of the Member States. TRIPS Agreement sets out minimum standards of intellectual property protection for Member States. A UN agency, namely, World Intellectual Property Organization (WIPO) based in Geneva administers treaties in the field of intellectual property. India is a member of WIPO. In India, Department of Industrial Policy and Promotion is the nodal agency for all matters concerning WIPO.¹

Intellectual Property Rights and Issues

IPR connotes the right to literary, artistic and scientific work; performances of performing artists; phonographs and broad-cast; inventions in all fields of human endeavor; scientific discoveries; industrial designs; trademarks; service marks and commercial names and designations and all other products resulting from intellectual activity in the industrial, scientific, literary and artistic fields. It is a generic term covering patents; registered design; trademark; copyright; layout of integrated circuits, trade secrets; geographical indicators and anti-competitive practices in contractual licenses. The term "Intellectual Property" denotes the specific legal rights –

1. Patents: A Patent is a legal monopoly, which is granted for a limited time by a country to the owner of an invention. Merely to have a patent does not give the owner the rights to use or exploit the

patented invention. That right may still be affected by other laws such as health and safety regulation or the food and drugs regulation or even by other patents. The patent, in the eyes of the law, is a property right and it can be given away, inherited, sold, licensed and can even be abandoned. As it is conferred by the government, the government, in certain cases even after grant or even if it has been, in the meantime, sold or licensed, can revoke it.

2. Copy right: Upon the inception of a literary, melodious, scientific, or aesthetic endeavor by an individual, they ascend to the position of legitimate proprietorship over said creation, thereby wielding absolute dominion over its employment and disposition. This person, known as the "creator," "author," or "rights holder," possesses control over the fate of the work. Copyright law automatically protects the work from the moment of its creation, without the need for any formalities like registration or deposit, ensuring its legal safeguard. It is of paramount significance to comprehend that copyright diligently safeguards the precise manifestation of a concept, rather than the concept per se. Copyright grants legal protection to the rights holder of an original work. These rights encompass both economic and moral aspects. Economic entitlements encompass a myriad of privileges, including but not limited to the prerogative to replicate, transmit, publicly enact, customize, translate, declaim, exhibit, disseminate, and other such privileges. Conversely, moral entitlements, positioned at the antipodal end, act as a bulwark to shield the author's prerogative to register dissent against any alterations to their opus that might conceivably impugn their eminence or unadulterated essence.

3. Designs: The preliminary purpose of law for Design is to protect the elements of design of commercial production. It is also helpful to novel actions in industries research. In India The Industrial Designs Bill, 1999 which replaces the Designs Act, 1911 on December 23, 1999 and is presently before the Lower House for its consideration. This Act is also aimed to in act a more detailed classification of design to conform to the international system and to take care of the proliferation of design related activities in various fields.

4. Trade Marks: A trademark constitutes a discernible emblem or representation harnessed by an individual, commercial enterprise, or legal entity to demarcate their merchandise or services as distinct from those provided by others. It affords consumers the capacity to identify and discern that the goods or services associated with the trademark emanate from a singular and unparalleled origin. Trademarks may be depicted through a variety of symbols, including: • TM, signifying an unregistered trademark affixed to goods for branding purposes • SM, signifying an unregistered

service mark utilized to identify and promote services • ®, denoting a registered trademark that has been officially recognized and recorded

5. Geographical indications: It refers to a distinctive sign or name that is utilized on products originating from a specific geographical region, possessing exceptional characteristics and reputation associated with that area. Typically, the name of the place where the product originates serves as the geographical indication. Agricultural products, for instance, are influenced by unique local factors like soil and climate, which contribute to their distinct qualities. The recognition is determined by the laws of each country.

Conclusions:

Intellectual property has increasingly assumed a vital role with the rapid pace of technological, scientific and medical innovation that we are witnessing today. Moreover, changes in the global economic environment have influenced the development of business models where intellectual property is a central element establishing value and potential growth. In India several new legislations for the protection of intellectual property rights (IPRs) have been passed to meet the international obligations under the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). India has made a number of changes to its intellectual property regime in order to increase efficiency and reduce the time required to issue patents. The country's innovation culture is taking centre stage. India is well positioned to prioritise R&D.

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AR, VR, and the Quest for Clarity: A Comprehensive Investigation

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Abstract:

In the dynamic landscape of immersive technologies, the distinctions between Augmented Reality (AR) and Virtual Reality (VR) are crucial yet often muddled. While both AR and VR aim to enhance user experiences by altering perceptions of the physical world, a clarity gap exists in understanding their unique attributes and applications. This paper delves into the nuances of AR and VR, scrutinizing the inherent differences that contribute to the clarity gap. By exploring their individual characteristics, applications, and potential synergies, this research aims to elucidate the distinctions between AR and VR, providing a clearer understanding of their respective roles in shaping the future of immersive technology.

Keywords Augmented Reality, Virtual Reality, Artificial Intelligence, Analytics, Immersive Technology

Introduction:

In recent years, the rapid proliferation of technology has transformed the way we perceive and interact with the world around. In recent years, the dynamic landscape of immersive technologies has undergone a profound transformation, reshaping our perceptions and interactions with the world [4]. The ascendance of Augmented Reality (AR) and Virtual Reality (VR) stands as a testament to this technological revolution. AR, with its overlay of digital information onto the physical environment, and VR, which immerses users in simulated realities, have permeated various sectors, from entertainment to education and healthcare. As these technologies continue to advance, the clarity gap between AR and VR becomes a critical focal point, necessitating a nuanced understanding of their distinctive features and applications. Professionals in the AR and VR domains face unique challenges and opportunities, and it is imperative to explore the knowledge gap that may hinder a cohesive comprehension of these technologies [1]. This research paper seeks to dissect the clarity of the knowledge gap by capturing the perspectives and experiences of professionals engaged in both AR and VR fields. By investigating their insights and areas of expertise, we aim to pinpoint specific areas where the clarity gap is most pronounced and propose strategies to bridge this divide. The study not only aims to elucidate the challenges faced by professionals but also strives to offer insights that can benefit diverse industries employing AR and VR technologies. In subsequent sections, we will delineate the research objectives, conduct a thorough review of pertinent literature, expound on the methodology for data collection and analysis,

and articulate the expected contributions and implications of this study. Through this research endeavor, we aspire to pave the way for a more cohesive and informed community of professionals navigating the intersection of AR and VR domains us.

Augmented Reality (AR)

Augmented Reality (AR) stands at the forefront of transformative technologies, offering a unique paradigm where digital information seamlessly integrates with the real world [6]. Through the use of sensors, cameras, and display devices, AR enriches the user's perception by overlaying virtual elements onto their physical environment [5]. From mobile applications to wearable devices like smart glasses, AR finds diverse applications across industries, enhancing experiences in fields such as gaming, education, healthcare, and navigation [7]. The key distinction lies in AR's ability to augment reality rather than replacing it entirely, allowing users to interact with both digital and physical elements simultaneously [1]. As AR continues to evolve, its potential for revolutionizing how we engage with information and the environment becomes increasingly evident. This research endeavors to delve into the nuances of AR, exploring professionals' perspectives and experiences to elucidate specific areas where a clarity gap may exist. By comprehensively understanding AR's applications and capabilities, we aim to contribute to a more cohesive and informed community in the realm of augmented reality.

Virtual Reality (VR)

Virtual Reality (VR) represents a cutting-edge technology that immerses users in simulated environments, creating a profound departure from

the physical world [8]. By employing headsets and motion-tracking devices, VR envelops users in a computer-generated, interactive experience that can range from lifelike simulations to fantastical virtual realms. VR has found applications in diverse sectors, including gaming, education, training, and therapy, offering users an unparalleled sense of presence and engagement [1]. The fundamental characteristic of VR lies in its capacity to transport individuals to entirely new realities, fostering an immersive and often transformative experience [9]. However, the clarity gap surrounding VR persists as professionals and users navigate the distinctive features and optimal use cases of this technology. This research aims to scrutinize the perspectives and insights of VR professionals, shedding light on specific areas where the clarity gap may impede a comprehensive understanding of VR's potential. By unraveling the intricacies of VR and its applications, this study seeks to contribute to a more cohesive and informed community within the virtual reality domain.

Literature Review:

The clarity gap between Augmented Reality (AR) and Virtual Reality (VR) has garnered attention within the literature, reflecting the intricate nature of these immersive technologies. As AR and VR gain prominence across various industries, there is a growing recognition of the need to understand the nuanced distinctions between them. Several studies emphasize the challenges professionals face in navigating the clarity gap, particularly in discerning the optimal applications and potential synergies between AR and VR [1]. The literature underscores the importance of elucidating the unique attributes of each technology, as their diverse functionalities and immersive experiences necessitate tailored approaches. Some scholars delve into user experiences, exploring how the clarity gap impacts individuals interacting with AR and VR applications. Moreover, researchers emphasize the significance of addressing the clarity gap to unlock the full potential of AR and VR in fields such as education, healthcare, and entertainment [10]. By synthesizing insights from various studies, this literature review contributes to the ongoing discourse surrounding the clarity gap between AR and VR, providing a foundation for future research endeavors aimed at fostering a more comprehensive understanding of these transformative technologies.

Survey Methodology:

This project aims to investigate and enhance the awareness of professionals by examining the factors related to their knowledge that may uniquely influence the awareness about AR and VR applications. The research process involves four

main steps to achieve this goal.

Step 1: Primary Research

The primary research phase is the foundation of the project. It involves conducting a comprehensive study on the subject matter, focusing on the current scenario. The researchers will design surveys to gather relevant data from a group of people from tech backgrounds and the young professionals who have just started their career in this field to determine their awareness regarding AR and VR [2]. These surveys will delve into various aspects of their experiences, and factors that impacted their knowledge regarding AR and VR. The primary research will provide valuable insights into the key determinants to check whether the respondents are aware of the basic terminologies related to AR and VR.

Step 2: Descriptive Analysis:

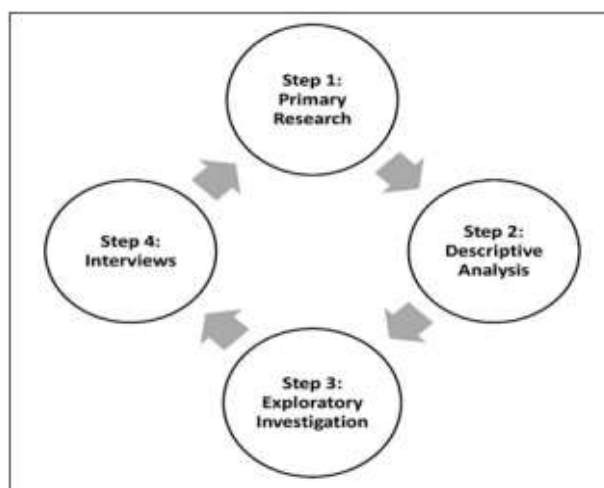
Once the primary research data is collected, the next step is to analyze and illustrate the findings in a more objective manner. The researchers will carefully examine the survey results to identify patterns, trends, and correlations [2]. Through descriptive analysis, the research team will examine different groups of people e.g. IT or software engineering students, people from tech backgrounds, the young professionals who have just started their career and here the researchers will present the data in a vivid and analytical manner, providing a concise overview about the information that checks the knowledge of the respondents whether they are aware of AR and VR.

Step 3: Exploratory Investigation:

The exploratory phase involves delving deeper into the identified factors related to the awareness of the comparison between AR and VR. The research team will investigate various studies and literature to gain a deeper understanding of these factors. They will explore existing research and theories that address the technological involvement in young professionals [2]. This process will help establish a comprehensive framework for understanding the complexities of differentiation among AR and VR.

Step 4: Interviews

To add a qualitative dimension to the research, the project includes interviews with participants who have less experience in their professional life. These interviews will provide firsthand perspectives and insights into their knowledge regarding AR and VR [2]. By engaging in structured interviews with participants who are well-informed about the topic, the researchers can gather rich and detailed information that complements the qualitative data obtained through surveys.



The Figure 1 shows the steps of survey methodology by which the researchers will examine the awareness of the knowledge about AR and VR who has just started their career and works on the said technologies in their day to day life.

Results

The researchers have gone through the survey in which they have asked questions to the young professionals who have just started their

career. The questions were related to the knowledge of Augmented Reality and Virtual Reality. The researchers have taken 71 respondents and the following tabulated data refers the questions asked to the respondents during the interviews. Tabulated data has been divided into 2 sections – section 1 consists of Yes/No type of questions and section 2 consists of multiple choice type questions.

SL No	Question	Results		
		Yes (no. of respondents)	No (no. of respondents)	Maybe (no. of respondents)
1	Are you from a tech background or a Tech-savvy person?	54	17	
2	Is AR different from VR?	53	4	15

It has been observed from the above data that question no. 2 where the researchers have asked the respondents that whether they know any differences between AR and VR and among 71

respondents, 53 opted for “Yes” and 4 don’t have any idea about the said question and 15 are confused regarding the technologies.

SL No	Question	Results		
		Option 1	Option 2	Option 3
1	What does AR stand for?	Augmented Reality – 67 no. of respondents	Alternative Reality – 4 no. of respondents	
2	What does VR stand for?	Virtual Reality – 66 no. of respondents	Visual Rendering – 5 no. of respondents	
3	Which technology adds digital elements to the real world?	AR – 55 no. of respondents	VR – 16 no. of respondents	
4	Which technology creates a fully immersive digital environment where the real world is replaced?	AR – 14 no. of respondents	VR – 57 no. of respondents	

5	You are wearing a headset that overlays digital information on your physical surroundings. Is this AR, VR, or both?	AR – 32 no. of respondents	VR – 12 no. of respondents	Both – 27 no. of respondents
6	You put on a headset, and suddenly, you are in a completely different world, disconnected from your physical surroundings. Is this AR, VR, or both?	AR – 6 no. of respondents	VR – 48 no. of respondents	Both – 17 no. of respondents
7	This picture displays the working of a famous app 'Pokemon Go' Is the image displaying AR, VR or both?	AR – 36 no. of respondents	VR – 19 no. of respondents	Both – 16 no. of respondents
8	Is the image displaying the use of AR, VR or both?	AR – 14 no. of respondents	VR – 41 no. of respondents	Both – 16 no. of respondents

Step 1: Primary Research

In this step, the researchers have chosen two questions to gather information regarding the knowledge of AR and VR among young professionals. The questions are -

1) What does AR stand for?

2) What does VR stand for?

Therefore, the intention to ask the above questions is to gain insights about the awareness of these terms among the respondents.

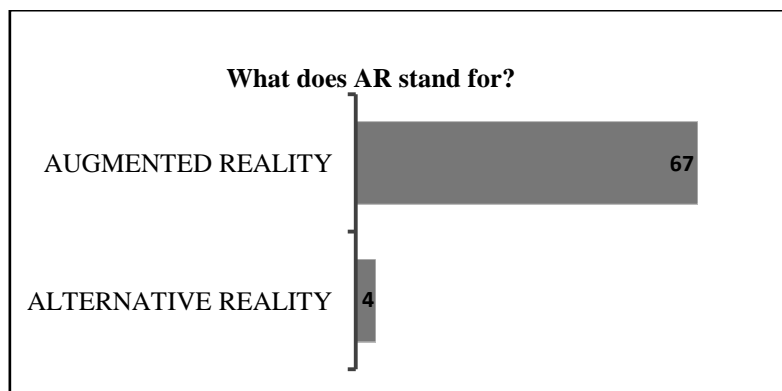


Figure 2: Awareness of the AR Terminology

It has been observed from Figure 2, where the researchers have asked the respondents that whether they are aware about the term AR or not.

The researchers have taken 58 responses and out of the submitted data, 67 opted for “Yes” and 4 opted for “No” for the term “AR”.

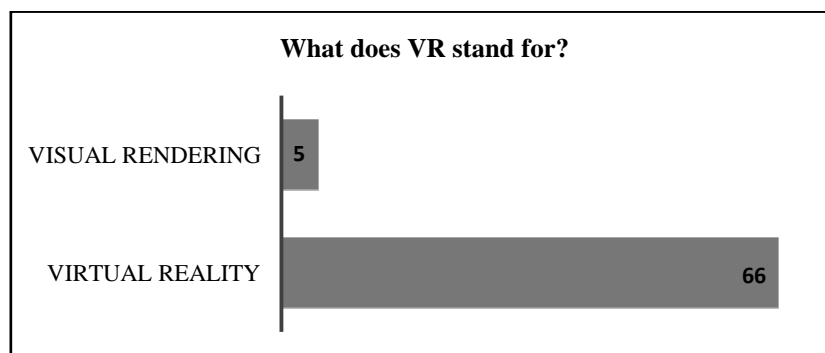


Figure 3: Awareness of the VR Terminology

It has been observed from Figure 3, where the researchers have asked the respondents that

whether they are aware about the terms VR or not. As depicted from Figure 3 that 66 opted for “Yes”

and 5 opted for “No” for the term “VR”.

Step 2: Descriptive Analysis

In descriptive analysis, the researchers have chosen four questions to the young professionals to gather information about the effectiveness of AR and VR in digital context and software development context. The questions are listed below –

- 1) Which technology adds digital elements to the real world?
- 2) Which technology creates a fully immersive digital environment where the real world is replaced?
- 3) You are wearing a headset that overlays digital

information on your physical surroundings. Is this AR, VR, or both?

- 4) You put on a headset, and suddenly, you are in a completely different world, disconnected from your physical surroundings. Is this AR, VR, or both?

The objective is to examine the professionals employed at different industries for instance IT or software engineering uses AR and VR in their daily purposes and here the researchers observe the knowledge of the respondents whether they are aware of the applications of AR and VR in real life or not.

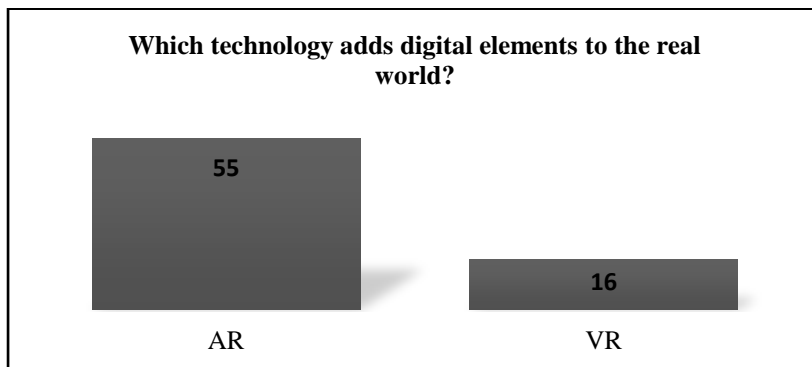


Figure 4: Awareness of the AR and VR applicability for instance IT or software engineering

It has been depicted from Figure 4, where the researchers have asked the respondents whether they are aware about the technology adds digital elements to the real world in digital context or not.

The researchers have taken 71 responses and out of the submitted data, 55 opted for “AR”, 16 opted for “VR”.

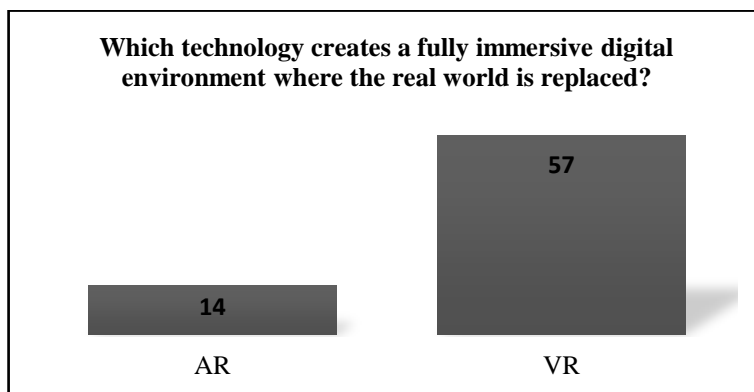


Figure 5: Awareness of the technology that creates a fully immersive digital environment where the real world is replaced

It has been observed from Figure 5, where the researchers have asked the respondents whether they are aware about the technology that creates a fully immersive digital environment where the real

world is replaced. The researchers have taken 71 responses and out of the submitted data, 14 opted for “AR”, 57 opted for “VR”.

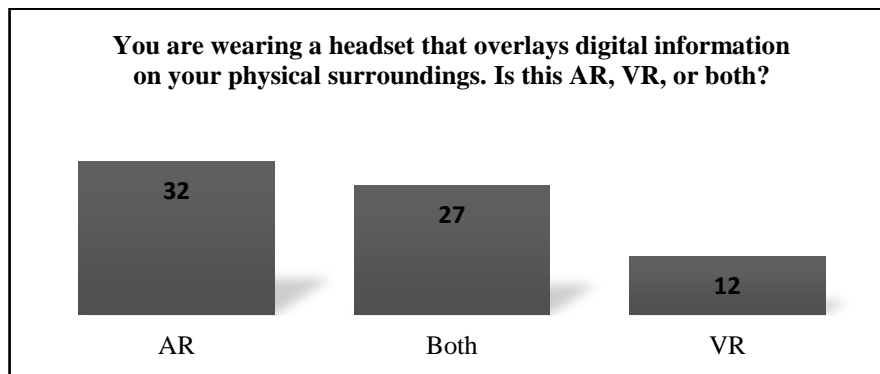


Figure 6: Awareness of wearing a headset overlays digital information on physical surroundings

The researchers have asked the respondents, to check whether they are aware about wearing a headset overlays digital information on physical surroundings - is this AR, VR, or both? After the

survey, the researchers have taken 71 responses and out of the submitted data, 32 opted for “AR”, 12 opted for “VR” and 27 opted for “Both” which is clearly understand from Figure 6.

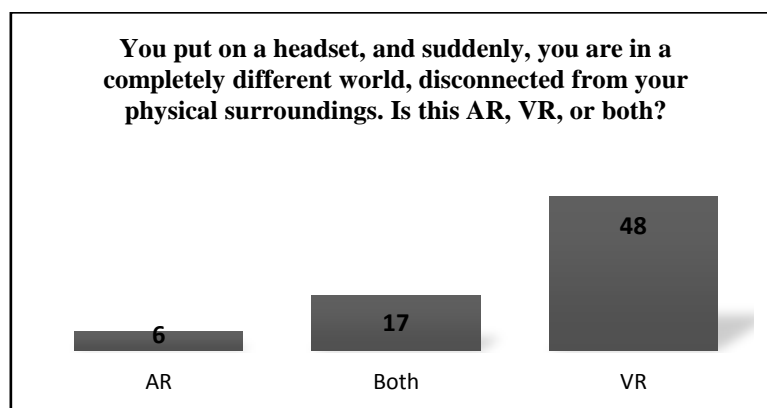


Figure 7: Awareness of putting on a headset, and suddenly, in a completely different world, disconnected from physical surroundings

The researchers have asked the respondents, to check whether they are aware about putting on a headset, and suddenly, in a completely different world, disconnected from physical surroundings - is this AR, VR, or both? After the survey, the researchers have taken 71 responses and out of the submitted data, 6 opted for “AR”, 48 opted for “VR” and 17 opted for “Both” which is clearly understand from Figure 7.

Step 3: Exploratory Investigation

For exploratory investigation, the researchers have chosen two simple images to form two questions to check the knowledge of the interested respondents whether they know the difference between AR and VR or not. The question

is written below:

- 1) This picture displays the working of a famous app 'Pokemon Go' Is the image displaying AR, VR or both?
- 2) Is the image displaying the use of AR, VR or both?

Since the researchers have the idea that, though most of the young professionals working indifferent kinds of AR and VR enabled projects, but are they aware of the existing differences between AR and VR? Is there any difference between AR and VR at all? Here in this step, the researchers have clear intention to find out the answers of the said questions for their exploratory investigation.

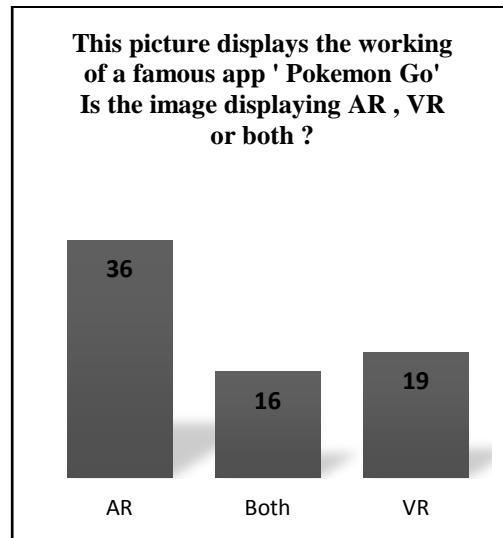


Figure 8: Awareness of the comparison between AR and VR

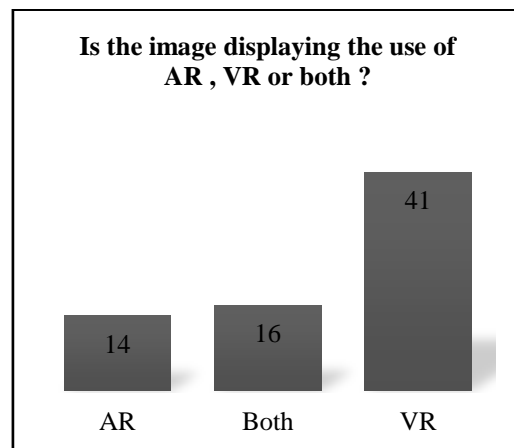


Figure 9: Awareness of the comparison between AR and VR

The researchers have asked the respondents, to check whether they know the difference between AR and VR or not. In this step of exploratory investigation, the researchers have shown two images to the respondents and tried to find out that whether they know the difference between AR and VR or not. After the survey, the researchers have taken 71 responses and out of the submitted data, 36 opted for “AR”, 19 opted for “VR” and 16 opted for “Both” which is clearly understand from Figure 8 for question 1) and 14 opted for “AR”, 41 opted for “VR” and 16 opted for “Both” which is clearly understand from Figure 9 for question 1).

Step 4: Interviews

At this final step, the researchers have taken 22 interviews those have admitted that they have the knowledge of comparison between AR and VR. Here the researchers have counted the responses of the participants for the final scrutiny.

In this step, the researchers have chosen one simple question to gather information regarding the knowledge gap between AR and VR among young professionals. The question is -

- 1) Is AR different from VR?
- 2) Therefore, the intention to ask the above question is to gain insights about the awareness of these terms among the respondents.

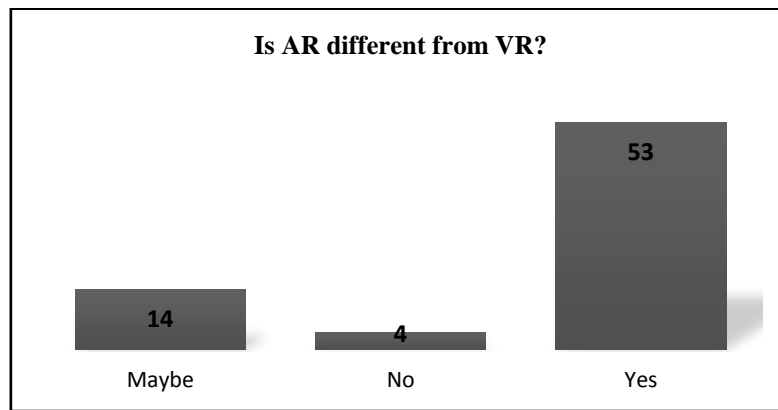


Figure 10: Comparison between AR and VR

It has been observed from Figure 10, where the researchers have asked the respondents that whether AR is different from VR or not. As depicted from Figure 10 that 53 opted for “Yes” and 4 opted for “No” and 14 opted for “Maybe” for the said question.

Discussion:

In this survey, the researchers have observed most of the working professionals, who have just started their career. In this investigation, researchers delved into the understanding and awareness levels of Augmented Reality (AR) and Virtual Reality (VR) among professionals who are embarking on their careers. The results unveil a prevalent familiarity with the basic concepts of both AR and VR. However, a discernible proportion remains uninformed about these immersive technologies, suggesting a notable clarity gap [3].

Among those acquainted with AR and VR, the survey reveals that a substantial number are conversant with the applications of both technologies, whereas a smaller cohort acknowledges their lack of knowledge but still operates within these domains [3]. This discrepancy hints at a practical engagement with AR and VR that surpasses theoretical comprehension in some instances. Technical students exhibit a varied spectrum of knowledge concerning the applications of AR and VR. While a significant number comprehends their uses, a minority lacks awareness of their potential benefits, and some express uncertainty about the relevance of these technologies in a business context.

In the working sector, where professionals are actively involved in AR and VR projects, a moderate number showcase awareness of the applications, but a small contingent remains uninformed about their usefulness. Additionally, there is a subset of participants expressing confusion regarding the applicability of AR and VR in the real life context.

Young software professionals display a strong awareness of the applications of AR and VR, with only a few respondents lacking understanding

about their usefulness [3]. A small fraction remains indecisive about the applicability of these immersive technologies in the realm of software engineering. Moreover, researchers investigate the knowledge gap between AR and VR. A majority of respondents acknowledge the distinction between the two, emphasizing a clarity gap. However, a minority claims there is no discernible difference. Interviews with those recognizing a gap highlight nuanced perspectives, further underlining the need for a clear understanding of the disparities between Augmented Reality and Virtual Reality in professional contexts.

Conclusion:

The primary objective of this survey report is to assess the foundational understanding of young professionals across diverse industries regarding Augmented Reality (AR) and Virtual Reality (VR). The researchers aimed to illuminate the comparative nuances between AR and VR, incorporating interviews with individuals possessing a comprehensive grasp of both technologies. Contrary to expectations, the findings reveal a prevalent misconception among respondents, with a majority asserting distinctive disparities between AR and VR. In reality, AR serves as an augmentation overlay on the real world, while VR immerses users in entirely synthetic environments. The essence of the clarity gap lies in the misperception that AR and VR are inherently different entities. Therefore, it becomes imperative to underscore the interconnected nature of these immersive technologies, emphasizing that they represent complementary facets within the broader landscape of extended reality (XR). In essence, clarifying the intricacies between AR and VR is crucial to dispelling prevalent misconceptions and fostering a more accurate comprehension of their interrelated functionalities.

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The Intersection of Innovation, Technology, and Entrepreneurship: Opportunities and Challenges

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Abstract:

This article explains the many opportunities and difficulties that arise from the dynamic junction of innovation, technology, and entrepreneurship. It draws attention to the transformative potential of this convergence for people and organizations by analysing important concepts and trends. Challenges like technological obsolescence, intellectual property protection, funding constraints, regulatory issues, and talent acquisition are discussed alongside opportunities like market disruption, rapid prototyping, global market access, collaborative ecosystems, and scalable solutions. Proposed are tactics for taking advantage of opportunities and minimizing obstacles, stressing the significance of establishing an innovative culture, adopting agile approaches, forming strategic alliances, giving top priority to customer-centric design, and encouraging ongoing learning. In addition, the paper provides insights into future prospects by outlining emerging themes in fields including biotechnology, blockchain, artificial intelligence, sustainability, and changing entrepreneurial models. By exploring these subjects, this paper hopes to offer insightful information that will help scholars, entrepreneurs, innovators, and policymakers navigate the intricate world of innovation, technology, and entrepreneurship.

Keywords: Innovation, Technology, Entrepreneurship, Opportunities, Challenges, Emerging Trends.

Introduction:

Innovation

Defined as the process of transforming an idea or innovation into a good or service that adds value or that consumers are willing to pay for. It entails the purposeful application of knowledge, creativity, and initiative to extract more or different values from resources. The process of developing and putting into practice fresh concepts, goods, or services that significantly advance a variety of industries is referred to as innovation.

Significance: Innovation propels development, economic expansion, and societal metamorphosis. It results in new services, goods, and procedures that make our lives better.

Technology:

Technology is the practical application of scientific knowledge, particularly in the industrial sector. It includes tools and apparatus created via the application of scientific knowledge. The use of scientific instruments and information to develop, alter, or enhance goods, procedures, or services is referred to as technology.

Significance Technology has a big impact on our world, from improved medical care to communication tools. It makes productivity, efficiency, and connectedness possible.

Entrepreneurship:

Entrepreneurship includes actions taken to combat entropy and improve organizational effectiveness. It entails starting a business or enterprises and assuming financial risks with the expectation of making money. Innovation and a willingness to take risks are two traits that define entrepreneurs. The act of spotting and seizing business possibilities, taking calculated risks, and allocating resources to launch and expand a new company is known as entrepreneurship. **Significance:** Innovation, employment growth, and economic development are all fuelled by entrepreneurship. Entrepreneurs are people who see opportunities, add value, and advance society.

Technology, innovation, and entrepreneurship are intimately related and frequently go hand in hand. Technology is frequently used in innovation to create new concepts, goods, or services. Because technology offers platforms, tools, and infrastructure for

company operations, it plays a critical role in facilitating and encouraging entrepreneurial activities. Conversely, entrepreneurship accelerates the uptake and commercialization of novel technologies, introducing them to the market and generating value. A potent synergy is produced when innovation, technology, and entrepreneurship come together. Technology is used by entrepreneurs to innovate, and success in entrepreneurship is fuelled by innovation. For economic growth, it is essential to comprehend this intersection. Nations that promote innovation and entrepreneurial environments prosper in the international arena. Furthermore, by comprehending how innovation, technology, and entrepreneurship interact, policymakers, researchers, and practitioners can better recognize and remove obstacles to innovation-driven entrepreneurship.

1. Possibilities Presented by the Intersection: Market Disruption and Opportunity

Identification: Market disruption opportunities arise from the convergence of innovation, technology, and entrepreneurship. This implies that fresh and inventive goods and services have the power to upend established marketplaces and open up fresh doors for business owners. Entrepreneurs have the ability to generate novel solutions that have the potential to upend established businesses and establish new markets by discerning gaps or unfulfilled demands within the market.

Iterative Development and quick Prototyping: Innovation, technology, and entrepreneurship come together to provide iterative development and quick prototyping. This implies that business owners can use cutting-edge technologies to rapidly develop prototypes of their goods or services, then refine them in response to customer input and market demand. This makes it possible to produce items more quickly and to modify and enhance them in response to user feedback received in real time.

Global Market Access: Global markets are accessible through the convergence of entrepreneurship, innovation, and technology. Thanks to technological developments, business owners may now reach a global client base by utilizing digital platforms and resources. This makes it possible for business owners to reach a wider clientele and grow their companies outside of local or regional marketplaces.

Collaborative Ecosystems and Networking: Opportunities for networking and collaborative ecosystems are created when innovation, technology, and entrepreneurship come together. Through a variety of networks and platforms,

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entrepreneurs can establish connections with experts, investors, like-minded people, and possible business partners. Through networking and cooperation, entrepreneurs may be able to acquire resources, form beneficial alliances, and exchange expertise that will help them develop and succeed more quickly.

Solutions That Are Both Sustainable and Scalable: Innovation, technology, and entrepreneurship come together to foster the creation of solutions that are both sustainable and scalable. Innovative technologies and business strategies can be used by entrepreneurs to provide solutions that are socially conscious, ecologically benign, and commercially successful. These solutions are scalable to reach a wider audience and produce steady revenue streams. They also have the ability to positively benefit society and address urgent global concerns.

3. Challenges to Navigate

Rapid Technological Obsolescence: In today's fast-paced market, this difficulty relates to the speed at which technology ages out of date or becomes obsolete. Fast technological advancement means that once-cutting-edge goods and services can soon become antiquated, forcing firms to continuously innovate and adapt in order to remain competitive. To stay competitive, businesses must keep up with the most recent developments in technology.

Protection of Intellectual Property: Works of literature, art, inventions, designs, names, symbols, and pictures that are exploited for commercial purposes are all considered works of intellectual property. Businesses must protect their intellectual property if they want to prevent rivals from stealing or copying their inventions. To ensuring that intellectual property rights are protected, this task entails negotiating the complicated legal environment of patents, trademarks, copyrights, and trade secrets.

Finance and Resource Limitations: A company's ability to succeed and expand depends on its ability to obtain sufficient capital and resources. However, obtaining funding, controlling cash flow, and allocating resources wisely are difficulties that many small and beginning companies encounter. Insufficient funds can impede daily operations, growth, and innovation, therefore it's critical for companies to properly manage their cash and look into other funding options.

Regulatory and Compliance Issues: A framework of laws, rules, and industry standards governs many facets of a business's activities. A broad range of legal requirements pertaining to subjects including data protection, consumer

rights, environmental rules, and industry-specific standards are included in regulatory and compliance issues. Businesses may find it difficult to navigate these complicated requirements and maintain compliance; they must remain knowledgeable, put in place strong compliance systems, and adjust to shifting regulatory environments.

Talent Acquisition and Retention: The development of a knowledgeable and driven team is critical to the success of any company. While talent retention focuses on maintaining valuable employees' commitment to the company, talent acquisition includes attracting, hiring, and onboarding skilled personnel. Businesses struggle to attract and retain top talent in today's competitive labour market, particularly in specialized disciplines or industries where there is a high demand for qualified workers. Attracting and keeping bright workers requires a variety of tactics, including competitive pay, growth and development opportunities, and a positive work environment.

4. Prospects for the Future: Developing Patterns and Opportunities:

Machine learning and artificial intelligence the term artificial intelligence (AI) describes how computers may mimic human intelligence functions as learning, reasoning, and self-correction. Machine Learning is a branch of artificial intelligence that allows computers to learn from their experiences and get better without explicit programming. These technologies, which automate operations, make predictions, and extract insightful information from data, are transforming a number of industries.

Decentralized and Blockchain Technologies:

Blockchain is a distributed ledger technology that operates on several computers and is decentralized, securely recording transactions. It guarantees data immutability, security, and transparency. By enabling peer-to-peer transactions, smart contracts, and decentralized applications, decentralized technologies—like blockchain—are transforming conventional centralized systems and promoting efficiency and trust across a range of industries, including finance, supply chains, and healthcare.

Green and Sustainable Innovations: Green and sustainable technologies concentrate on creating eco-friendly answers to urgent global issues like pollution, resource depletion, and climate change. In order to build a more sustainable future for future generations, these inventions support the usage of eco-friendly products, waste reduction

strategies, renewable energy sources, and sustainable manufacturing techniques.

Health Technology and Biotechnology:

Utilizing biological processes and species, biotechnology creates goods and technologies that enhance both the environment and human health. The use of technology to improve patient outcomes, diagnosis, treatment, and delivery of healthcare is referred to as "health tech." The healthcare sector is undergoing a transformation thanks to developments in biotechnology and health technology that are propelling advances in telemedicine, medical devices, customized treatment, and gene editing.

The Development of Models for Entrepreneurship:

The term "evolution of entrepreneurial models" describes how market changes, customer preferences, and technical advancements are influencing the nature of entrepreneurship. In order to generate value, expand their enterprises, and meet societal demands, entrepreneurs are embracing cutting-edge business concepts like platform-based companies, subscription services, and social entrepreneurship. This development illustrates how entrepreneurship is dynamic and can adjust to new opportunities and difficulties in the digital era.

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Law, Human right and Development

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Abstract:

This article examines the relationship between human rights and development from a legal perspective, highlighting challenges and suggesting reasons for persisting strains and disconnects. It argues that human rights are subject to binding international legal obligations, which are crucial to development. The challenges of integrating human rights into development and the resulting policy and discourse divergences are addressed. The article also discusses the consequences of these divergences, including a lack of prominence for legal obligations regarding human rights in development, the absence of a standardizing gauge for assessing development processes and outcomes, a general lack of policy coherence, and a potential undermining of human rights accountability. Opportunities within the global human rights regulatory framework are highlighted, suggesting that obstacles to integrating human rights into development may stem from a disregard for the regulating and legal aspects of human rights, which, in turn, present valuable opportunities for greater coherence and awareness around global legal structures.

Keywords: human rights, development, legal obligations, policy coherence, accountability, global regulatory framework, integration.

Introduction:

Common freedoms and Human Right improvement keep on mirroring a different development. This article investigates difficulties which portray the connection between common freedoms and improvement according to a legitimate point of view recommending justifications for why the strains and detaches persevere. It makes a self-evident, yet by the by undervalued point: basic liberties are the subject of restricting global lawful commitments and their significance to advancement can be figured out considering this. The initial segment of this article tends to the difficulties of coordinating basic freedoms being developed and the divergences of talk and strategy systems. The results of these divergences are inspected, including an absence of conspicuousness for legitimate obligations for common freedoms being developed, the shortfall of a regularizing gauge against which to check improvement cycles and results, a general absence of strategy soundness and a potential sabotaging of basic liberties responsibility. The article closes by featuring open doors surviving in the worldwide basic liberties regulation structure. The lawful difficulties and open doors are considered to be interconnected: snags faced in coordinating basic freedoms being developed might be to be established in a disregard of the regulating and legitimate elements of common liberties, which thus highlight valuable open doors for more noteworthy union and cognizance around worldwide lawful structures. Articles

Despite the fact that acknowledgment of a few connection between common freedoms and improvement is generally well supported, there are manners by which the two endure in equal and keep on mirroring a different development. The connection between basic freedoms and improvement today is apparently characterized more by its qualifications and disengages than by its places of assembly, regardless of significant proof of the potential for common support. This article tends to the connection point of basic liberties and improvement, zeroing in particularly on the combination of common freedoms into advancement (albeit the converse is implied in parts). It takes a gander at the lopsided acknowledgment of common liberties being developed, especially those which are straightforwardly pertinent to or impacted by improvement cycles and results. It plans to investigate the likely pertinence of basic liberties commitments as an ignored however possibly advantageous region to investigate: in this, the attention is on commitments under settlements to which states have deliberately consented. Thusly, consequently, it sets out the boundaries of the lawful and strategy inquiries to welcome further investigation of the amazing open doors surviving in the legitimate components of common liberties talk and the potential for their future application being developed.

Anything the view taken of how intently common freedoms and improvement can and ought to be coordinated, there can be no question that the two cross-over significantly and various worldwide systems, for example, those examined in this article

have started to perceive the associations Sano, 2006. A reason of this article is that basic liberties could be coordinated more foundationally into improvement strategy and practice, for three reasons. (1) They are characteristically important in meaning to safeguard human pride (for example *jus cogens*) and might be (adversely) impacted by improvement so advancement strategy ought to distinguish approaches to at the very least meet the 'cause no damage' edge. (2) They are additionally instrumentally helpful to improve advancement processes, address specific kinds of social gamble, guarantee responsibility (Darrow and Tomas 2005), and eventually secure more evenhanded and maintainable advancement results. (3) As an issue of public worldwide regulation, common liberties settlement commitments are legitimately restricting States parties, and under custom tie all states other than constant dissidents: as such they ought to be regarded in all unique circumstances, including improvement.

While most of improvement strategies and structures consolidate common freedoms concerns, many do so just verifiably: subsequently, there might be esteem in analyzing the utilization of express basic liberties language and dependence on common liberties commitments under global regulation. This article centers around basic liberties as the subjects of restricting global legitimate commitments, and a careful survey of improvement strategy, proposes that regardless of some consolidation of common freedoms being developed arrangements, more noteworthy dependence on basic freedoms regulation could give one compelling method for advancing a more efficient, express and rational way to deal with the reconciliation of common freedoms being developed. Basic freedoms regulation offers one approach to spanning the uniqueness between common liberties and development, accordingly upgrading lucidness and common liberties responsibility, featuring likely gamble and forestalling common liberties hurt.

The Connection between Common freedoms and Human Right Advancement Union and difference

The boundaries of the cross-over between common freedoms and improvement can be portrayed as happening at three unique levels: (1) real or considerable cross-over, (2) focalized standards, and (3) obligations.³ This works with a more precise way to deal with the connection point between the two, and a more deliberate and straightforward way to deal with the combination of basic liberties being developed.

At a verifiable or meaningful level, one can distinguish a conversion of basic liberties and improvement in the growing scope of capabilities, exercises, and strategies of improvement offices and

global monetary foundations (IFIs) which cross-over with the material arrangements of common freedoms settlements, especially those of the Worldwide Pledge on Financial, Social and Social Privileges (ICESCR) yet additionally those of the European Social Contract (1961), the American Show on Basic freedoms (1969), the Convention of San Salvador (1988), the African Contract of Human and People groups' Privileges (1981), and the European Association (EU) Sanction of Principal Freedoms (2001). Improvement tasks and projects presently cover the range of social and human turn of events, quite a bit of which bear an immediate relationship to center monetary and social freedoms, and interface with various common and political privileges. Improvement foundations lead a wide scope of tasks in the fields of wellbeing, schooling, work and government backed retirement, kids and youth, and food. They progressively advance administration programs, against debasement systems, as well as equity change and law and order exercises. Be that as it may, while there is a lot of considerable compatibility, this 'genuine cross-over' doesn't consequently line up with every one of the goals of such tasks and those of 'relating' basic freedoms deals. Such exercises may not be expected to reflect or advance the acknowledgment of basic liberties, since few reference or standard common freedoms in their plans and goals. Additionally, such exercises will normally not address any effect on basic freedoms evaluating whether they truth be told help common liberties or result in common liberties hurt.

However, the union happens likewise in less happy ways - there is a recorded cross-over between basic freedoms and improvement clear in the rules that are presently conspicuous in the standard of advancement strategy. Standards like cooperation and consultation,⁴ consideration, union, great administration, responsibility and correspondence or value, are deeply grounded being developed talk, however they additionally comprise the principles of a rights-based way to deal with improvement with establishes in common freedoms reasoning or shows. This combination and nearness highlights the topic of what 'esteem added' common freedoms talk brings (Sano, 2006), and that the response lies in the domain of commitments.

Equity gives a clear model. Equity lies at the core of the worldwide basic freedoms structure, supporting whole instruments like the Show on the End of All Types of Victimization Ladies (CEDAW), the Show on the Privileges of People with Inabilities (CRPD) and the Show on the Disposal of All Types of Racial Segregation (CERD). Balance is characterizing component of different arrangements like the Global Agreement on Common and Political Privileges (ICCPR, Articles 2 and 3), ICESCR (Article 2.2) and the

European Show on Basic freedoms (ECHR, Article 14).⁵ Improvement talk frequently embraces fairness standards, at times tracking down its analogs in the guideline of value (see World Bank, 2006), some of the time in standards like consideration, union, or strengthening. Correspondence may likewise be translated all the more verifiably through exercises that cultivate comprehensive turn of events. This delineates both the similarity of advancement and basic liberties; yet additionally the manners by which the improvement 'reciprocals' neglect to explicitly embrace common freedoms. The combination around rule stays a restricted one, which, in this model, disregards primary or verifiable separation, and a more all encompassing and contextualized comprehension of the elements that cause imbalances. It misses the mark on regulating and natural support of fairness established in common freedoms regulation, and the substantial, enforceable norms it involves. Essentially, value doesn't involve obligations, while uniformity as a right creates commitments. A more grounded incorporation of balance into improvement, including through the significant legitimate guidelines or through the direction of translations of skilled settlement observing bodies, could reinforce improvement through encouraging particularity, specialized boundaries and a strong regulating establishment.

At the degree of rule thusly, a deliberate exertion exists to incorporate common liberties into advancement strategy and practice, which has enhanced improvement talk and further developed improvement cycles and results through getting more prominent support, counsel, and value. Notwithstanding, the wellspring of those standards, and their particular repercussions and understanding are passed on to the attentiveness of foundations, so their standardizing strength is left dubious.

Lawful or command imperatives:

For the vast majority improvement organizations common freedoms are perceived to lie outside the lawfully settled orders of advancement institutions.⁹ The perspectives are many times in light of specific translations of arrangements on political preclusion in the constitutive instruments of improvement agencies.¹⁰ They attest that basic liberties are innately political, and in this manner, outside the allowed domain of contemplations for such foundations, as well as outside their laid out command and capability. These perspectives will some of the time be combined with contentions that basic freedoms are appropriately the domain of additional transparently political elements whose orders give unequivocally to common liberties. The tight meaning of institutional orders may likewise lay on a dream of the particularity of errands in a worldwide setting and the right dispersion of obligation between global organizations.

Political obstruction and worth based complaints:

Past the formal lawful imperatives, or specific meanings of commands, basic freedoms isn't an idea around which there can be supposed to be agreement, and at a worldwide level it is one of certain political responsiveness, with states savagely defensive of their common liberties records and impervious to rankings, evaluations and rebuff. Thus, basic freedoms is broadly seen as a dubious subject being developed organizations and IFIs, and saw warily due to its disruptive potential, including at the degree of overseeing bodies. There might be generally contrasting perspectives between individuals from the North and the South, or among givers and accomplices; however there may similarly be changes among contributors, and between accomplices. Some oppose an ongoing widened comprehension of common liberties (perhaps leaning toward specific homegrown definitions or territorial understandings, or an accentuation on one or other classification of right). Others oppose being directed to on basic liberties through the loaning instruments or improvement help for the most part, and many go against what they see as twofold principles and pietism when the directs come from nations with financial power instead of commendable common freedoms records. It is likewise worth recognizing the lopsided effect common liberties related conditionalities could have on specific part nations - that is, past the unbalanced effects on acquiring nations (with no attending tension on banks), certain nations might have the option to oppose such common freedoms oversight by declining to get from establishments that consider or force basic liberties principles, while others, typically the most unfortunate and least strong, might not have that opportunity.

Sum-up:

This article has looked to highlight a few clear however by and by ignored qualities of the basic freedoms regulation system with regards to improvement. While it doesn't contend for common liberties conditionalities it expects to feature in a primer manner, a portion of the valuable open doors introduced by the worldwide basic freedoms system as a common, steady and clear design of global deals with significant and, at times close to widespread sanction. These proposition a legitimate and standardizing gauge established on the willfully embraced responsibilities of states, which tie them under open worldwide regulation and which might uphold them chasing practical turn of events.

Reference:

1. An early linkage can be found in the recognition of the right to development, see for example, Proclamation of Tehran (1968)http://www.unhchr.ch/html/menu3/b/b_tehern.htm. See also the Declaration on the Right

to Development, Resolution 41/117 / 128 (4 December 1986).

2. For an analogous discussion linking trade and labor standards, see Barry and Reddy (2006: 548).
3. This is the typology used in McInerney-Lankford (2007: 459).
4. Participation and consultation are central to the policies and practice of many development agencies; see e.g. the World Bank Operational Policies on Environmental Assessment (OP 4.01), Indigenous Peoples (OP 4.20), Forests (OP 4.36) and Cultural Property (OP 4.11).
5. For a comprehensive discussion of international law provisions on equality and protection against discrimination, see McKean (1983) and Fredman (2001).



A Critical Study on the Scheme of Facilitating Startups Intellectual Property Protection (Sipp)

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Abstract:

Intellectual property refers to creation of invention, literary and artistic works, designs, symbols, names and images used in the business. Intellectual property covers the Patents, Copyrights, Trade marks, Industrial Designs, Geographical Indications, Trade secrets etc., In line with various reforms, India is poised to USD 30 trillion economy as per Viksit Bharat 2047. To improve the Indian industry, Indian Government initiated the Scheme of Facilitating Start up's Intellectual Property Protection (SIPP). The study on this scheme helps in determining the startup entrepreneurs effectiveness of facilitating the protection of Patents, Trademarks and designs in India and abroad. The Literature will be obtained from the websites and research papers. Any gaps of the study will be reviewed for further research and suggestion to improve the national economy alongwith cordial business environment.

Keywords: Intellectual Property, Startups, Income tax, innovation

Introduction:

New entrepreneur is the base for the future growth of any economy. For this, Startup entities will play a major role for the growth of the economy. The main concept of Startup is introduction of innovative product which can differentiate with the existing concept / service / product. This give a way forward for the increase of business and thereby employment opportunities and growth contribution to the economy. The startup india initiatives were launched on 16th January 2016 by Department for Promotion of Industry & Industrial Trade (DPIIT) under the Ministry of Commerce. With the journey of 300 startups in the year 2016 reached more than one lakh startups in the year 2023 alongwith employment potential of 12.42 lakhs.

Objective of the Study:

1. To understand the concept of Intelletual property and various types
2. To study the Scheme of Facilitating Start up's Intellectual Property Protection(SIPP)
3. To study the performance of the initial scheme of 16.01.2016 to 31.12.2023
4. To discuss the scheme and suggest the measures for further improvement of the scheme

Research Methodology:

Generally, the researcher will obtain the primary and secondary data. Primary data

pertains to first hand information obtained in the form of interviews, questionnaire etc., whereas the Secondary data pertains to the published data which is already available. For this study, relied on the Secondary data which is available in the websites, journals, acts, rules, magazines, newspapers, books etc.

Literature Review:

Jaipura et.al., have studied the Intellectual Property in an Indian context and suggested the importance of inculcating the knowledge of Intellectual Property in the education to help the newer generations understand its importance and improve the innovation skills. They also mentioned how important the intellectual property rights are in the new age of technology. The same issues are addressed by several more researchers (Maurya 2021) but very less number of researchers have addressed the importance of intellectual property in startups. Startups mostly involve technological developments which should be considered as intellectual property and providing proper guidance and support to the startups in this aspect is essential. This research will explore the existing information on startups and intellectual property which will further help us in concluding the study with few suggestions to improve the intellectual property scenario among the startups in India.

Existing scenario of Intellectual Property in India:

Intellectual Property refers to creations of mind in the form of invention, literary works, artistic works, designs, symbols, names, images etc., used in the business world. These will be protected by law once the same are registered as per the respective acts for Copyright, patents and trademarks. There is an international organization viz., World Intellectual Property Organisation (WIPO) with 193 member states. WIPO promotes innovation and creativity for better sustainable future. The following are the various types of Intellectual Property:

1. Patents – A Patent is a statutory right given for an invention. Patent will be issued for a period of 20 years from the date of filing an application. If the patent is filed under the national phase, then the period will be recognized from the international filing date as per Patent Cooperation Treaty (PCT). Patent Act 1970 is amended in 2005 and the Patent Rules 2003 amended in the year 2016. Patent protection pertains to each nation and if any patent is to be protected in any other foreign nation then the same is to be applied in the respective nation..
2. Copyright – Copyright is mainly pertains to rights of the creator for literary and artistic works viz., music, books, paintings, films, advertisements, computer programs, maps, drawings, architecture, photographs etc., According to Berne Convention, copyright protection is obtained automatically. There will be economic and moral rights for the protection of the copyrights.
3. Trademark – Trademark is a sign which is distinguishable from one entity to the another entity. Trade Mark Act 1999 and Trade Mark Rules provides for the registration of goods alongwith the services. The period of registration and renewal was increased from 7 years to 10 years. Trade mark constitutes the words, signs, symbols, letters, drawings, three dimensional features etc.,
4. Industrial Designs – It may consists of two or three dimensional features of shape, pattern, colour etc., Indian Design Act 2000 will guide for the registration of the Industrial designs. The registration will be effective for a period of 10 years renewable for another 5 years.
5. Geographical Indication – It is a sign used on the products identifying the

geographical origin. It will be used for agricultural products, foodstuffs, wine, handicrafts, drinks etc., The Goods (Registration & Protection) 1999 prescribes that the registration will be valid for a period of 10 years which will be renewed for another 10 years. Darjeeling Tea, Kancheepuram Sarees etc., are GI's.

6. Trade Secrets – Trade secrets are confidential information pertaining to the intellectual property which may be sold or licensed. Companies should take preventive measures against theft or misappropriation duly signing the non disclosure agreement with employees and stakeholders and non-compete agreement with the stakeholders.

Startup

Startup is the new entity started by registered partnership firm formed under Indian Partnership Act, 1932 / Limited Liability Partnership firm formed under the Limited Liability Partnership Act 2008 / private limited company formed under the Companies Act 2013 with innovative ideas and techniques which will have potential gains with further investment and marketing support. Startup means an entity incorporated or registered in India which is not older than 5 years and having annual turnover not exceeding Rs.25 crores in any preceeding financial year; this entity will function towards the objectives of innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property. The Income Tax vide Notification dated 16.01.2019, the Startup entity will be considered for a period of ten years from the date of incorporation / registration, turnover not to exceed Rs.100 crores in the preceding financial year. The Startup entity shall cease on completion of 10 years from the date of its incorporation / registration or if the entity exceeds Rs.100 crores turnover during any of the previous year. The Startup business aims towards innovation, development or improvement of products or processes or services or if it is of good business model with good potential of employment generation or wealth creation. The Department of Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry declared the 16th January as National Startup Day.

One of the following conditions are to be fulfilled for eligible startup with regard to the innovative nature of business:

1. The proposal is to be supported by the recommendation from an incubator established in a Post graduate college in India or
2. The proposal is to be supported by an incubator which is funded from the Government as part of any scheme or
3. The proposal is to be funded by an Incubation Fund / Angel Fund / Private Equity Fund / Accelerator / Angel Network duly registered with Securities Exchange Board of India (SEBI) or
4. The proposal is having patent granted by the Indian Patent and Trade mark office or
5. The proposal is not in the negative list of funds which are not eligible

Self Certification:

The Startup's in order to focus on their core business, the Startup's shall be allowed to self certify the compliance of six Labour Laws viz., The Payment of Gratuity Act 1972, The Employees State Insurance Act 1948, The Employees Provident Funds and Miscellaneous Provisions Act 1952, The Contract Labour (Regulation and Abolition) Act 1970, The Inter-State Migrant Workmen (Regulation of Employment & Conditions of Service) Act 1979, The Building and other Constructions Workers (Regulation of Employment & Conditions of Service) Act 1996 and three Environmental Laws viz., The Air (Prevention & Control of Pollution) Act 1981, The Water (Prevention & Control of Pollution) Act 1974 and The Water (Prevention & Control of Pollution) Cess Amendment Act 2003. For compliance of Labour laws, there will not be any inspections for a period of 5 years except on receipt of complaint of violation. The Ministry of Environment, Forests and Climate Change on 05.03.2016 created new Category "White Category" wherein the 36 Industrial sectors having Pollution Index Score including and upto 20 which is practically non-polluting which will not require Environmental Clearance and consent which will help in getting finance from lending institutions. Further there is no necessity of obtaining the Consent to Operate and intimation to the concerned Pollution Control Board shall suffice.

Benefits to Startup's:

1. The Applications will be finalized under fasttrack mode
2. A panel of "facilitators" shall be empanelled by the Controller General of Patents, Designs & Trade marks will advise on different intellectual property and information on protecting and

promotion of intellectual property in other countries

3. Government will bear the fees of the facilitators and start up's to pay only the statutory fee
4. Startup's will given rebate of 80% in filing of patents comparing to the other companies

Income tax exemptions:

To encourage the Startup's, the Government of India is providing the following Income Tax exemptions:

Section 80IAC of the Income Tax Act 1961 – The Startup entity should be recognized by DPIIT and which are incorporated after 01.04.2016. The Private Limited Companies or Limited Liability Partnership are eligible for tax exemption from paying income tax for three consecutive financial years out of their first ten years since incorporation. The Startup entity must apply through STARTUPINDIA portal duly attaching the Memorandum and Articles of Association, Annual Accounts for the last three years, Income tax returns, Board resolution etc.,

Section 56(2)(vii b) of the Income Tax Act 1961 - The startup recognized by the Department of Promotion of Industry and Internal Trade (DPIIT) is eligible for exemption from these provisions. Form No.2 is to be filed by the startup for claiming the exemption.

Section 79 of the Income Tax Act 1961 – The amendment in Finance Bill 2023 extends to Startups to carry forward the setoff losses incurred in the first 10 years viz-a-viz 7 years of their incorporation.

Easy winding up of Startup's

The Startup's can be easily started and also exit with minimum time. The Startup's can be wound up within 90 days of filing an application for insolvency. An insolvency professional shall be appointed who shall be incharge of the company including liquidation of its assets and paying its creditors within 6 months of such appointment. Further, the liquidator shall be responsible for closure of the business, sale of assets and repayment of creditors etc.,

Public Procurement – The main objective of Public Procurement portal is to make easier for the startup's to participate in the GOI Public Procurement process and allow them to access another potential market for their products popularly Government e Market place (GEM). The benefits are to have an opportunity to market the Startup products, exemption from prior experience, turnover and Earnest Money Deposit (EMD).

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Discussion:

In the year 2016, the concept of “CREATIVE INDIA, INNOVATIVE INDIA” initiated by the Government of India. The startups in 2016 were mere 3000 and the same is reached to more than one lakh by December 2013

with employment generation of about 12.42 lakhs. The Maharashtra State is leading with 21000 startups followed by Karnataka with 12600, Delhi with 12500 startups, Uttar Pradesh with 10900 & Gujarat with 9200 startups. The yearwise data on startups from 2016 to 2023 is placed below:



Figure 1 Year wise increase in number of startup (Source: Startup India Factbook (PRABHAAV))

The startups distributed across 57 industries. The following are the top growing industries:

1. IT Services with above 13500 units with focused areas on Application Development about 25%, Product Development about 24%, IT consulting about 21% etc.,
2. Healthcare & Life sciences with above 11000 units with focused areas on Health and wellness about 27%, Healthcare services about 19%, Pharmaceutical about 16% etc.,
3. Education with above 7100 units with focused areas on Education technology 34%, Skill development 27%, E-Learning 22% etc.,

Conclusion:

In line with various policies of the Indian Government, India is poised to USD 30 trillion economy as per Viksit Bharat 2047 to transform the country into developed country with four pillars of Yuva-the Youth, Garib-the Poor, Mahila-the Woman & Kisan-the farmers. For this various schemes sector wise were already initiated. Specific scheme for the Startups were initiated on 16.01.2016 as Scheme of Facilitating Start up's Intellectual Property Protection (SIPP) by the Department for Promotion of Industry & Industrial Trade (DPIIT) under the Ministry of

Commerce. The following are suggested for the further development of Startups:

1. The limit of turnover benefit for the startup is Rs.100 crores. Once this limit is crossed then the benefits under Startup will be ended. Considering the high risk of the startups, the ceiling limit is to be removed.
2. The period of exemption are there for a period of 10 years. Beyond 10 years instead of further exemption, the reduced income tax rate of 5 to 10% only is to be charged.
3. High employment potential innovative sectors are to be preferred for zero GST for the startups which will attract customers
4. Though some Income tax benefits were initiated for startups but tax authorities assessments are not eliminated. These to be strictly implemented with fast completion of assessments.
5. The subject on Intellectual Property is to be introduced at high school level to encourage the students mind towards the concept of innovation.
6. At present, internship is being giving to students who are pursuing courses in specific specialization like Law; The number of internships to be increased and

opportunity is to be given to all specialized courses and further reasonable stipend is to be given in order to encourage the students to enrol.

The concept of “CREATIVE INDIA, INNOVATIVE INDIA” mainly to encourage the startups especially by creating more startup funds to various sectors. The startup data is available in the government domains which is not having comprehensive data. There is further scope of research sector wise analysis in order to have more concentration of further improvements sector wise for the benefit of young entrepreneurs.

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An Examination of Influential Factors Impacting Consumer Buying Behavior in E-commerce Transactions: A Comprehensive Review

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Abstract:

The Indian e-commerce sector is predicted to expand to roughly 190 billion US dollars by the time of 2025. This sector's rise may be attributed to a variety of factors, including enhanced infrastructure, a surge in the number of internet surfers and individuals with smartphones in India, and a shift in customer behavior toward purchasing items via the internet versus conventional shopping locations. Indian buyers have fully accepted the web-based purchasing paradigm, and as a result, an increasing number of vendors are turning to E Commerce venues to offer what they sell. The purpose of the study aims to comprehend precisely why consumers have switched to E-Commerce systems, as well as the multiple variables such as " Price Sensitivity, Convenience Perspective, Privacy and Security, Product Information Perspective, Variety of Goods/Services" regarding online stores and their influence on consumer's adoption of purchasing goods via the internet. The study aims to determine which factors impact consumer acceptance of online purchasing and how E-Commerce enterprises may enhance their level of service in order to lure additional consumers. This research paper is prepared on the basis of secondary data. To do this research researcher do review of the research paper, research articles, journals, thesis which are related to this topic.

Keywords: E-Commerce, Consumer Buying behavior, Factors affect Consumer buying decision.

Introduction:

During the epidemic and ensuing lockdown in 2019 and 2020, the Indian e-commerce business is growing rapidly. The lockdown had an impact on the flourishing of numerous industries throughout the entire nation, whereas the E-Commerce Industries remained relatively unaffected, with increasing client purchases and revenue expansion. According to Goldman Sachs, India's e-commerce market would be worth \$99 billion by 2024, with online shopping predicted to have more than doubled to roughly 11% current 4.7% within 2019 at a CAGR of 27%. The internet-based grocery industry estimated to be currently worth less than \$2 billion will grow to \$29 billion by 2024. Online purchases of goods will increase between 3,00,000 for each day within 2019 to in excess of around 5 million every day until 2024. The surge in broadband and smartphones usage in India is driving the development. Indian customers' shift to purchasing goods via the internet at leisure has also contributed to this trend. Rising adoption of smartphones in rural regions, as well as 5G Internet mobile access, have contributed to a shift in buyer behavior. The growing popularity of online resources has brought the customers to the merchants through supplying the essential

connecting infrastructures. E-commerce has evolved into a popular medium for connecting customers and vendors. As more buyers accept the web-based purchasing paradigm, retailers are beginning to utilize online retailers to meet the demands of their customers. This phenomena has resulted in the expansion of Amazon India, Snapdeal, Mishoo, Flipkart, whose have witnessed an upsurge in income as more merchants and buyers join the world of e-commerce.

Objective:

To analyze how various degrees of Price Sensitivity, Convenience Perspective, Privacy and Security, Product Information Perspective, Variety of Goods/services influence customer purchase choices in e-commerce.

E Commerce:

E Commerce is a kind of method to buy or sell goods or services via ICT. It includes practices that include selling products online, e-payments, e-auctions, and internet-based banking. E-commerce has altered the way companies run and customers purchase by providing ease, connectivity, and worldwide reach.

"E-commerce is the process of conducting commercial transactions through electronic means, primarily over the internet. It involves activities such as online shopping, electronic payments, and digital marketing, enabling businesses to reach

customers beyond geographical boundaries and offering consumers a convenient way to purchase goods and services remotely.” by P. T. Joseph and S. J. Prince, 2013.

Consumer Buying Behavior: Purchase behavior among customer encompasses the steps and actions that customers do throughout their choices regarding purchases. It refers to the different variables, influences, and incentives that lead people to choose, buy, and utilize items or services. Personal likes and dislikes, perspectives, and preconceptions all have an impact on this sort of conduct, as are commercial stimulation, societal factors, and environmental considerations. Recognizing customer purchasing behavior is critical for organizations looking to successfully promote what they sell, customize their offers to fit consumer demands, and create effective advertising campaigns.

Literature Review:

“Predictors of online shopping in India: an empirical investigation” Urvashi Tandon (2020), The study examines the consequences of many aspects on consumer fulfillment, including requirements for performance, expectations for effort, social influence, enabling circumstances, motivational factors, financial value, tradition, logistics management, internet usage, and the POD payment alternatives. The investigation discovered that Pay on Delivery (POD) is seen as a secure option by consumers. As a result, online merchants should spread the POD product to clients around India.

“Preferences of Indian consumers towards attributes of online shopping websites: a conjoint analysis” Aanchal Aggarwal (2020), This research found that buyers' purchasing intentions are influenced by three key factors: perceived convenience, privacy, and details accuracy. The research indicated that considered accuracy of information is an especially essential component in establishing trust with online shops by minimizing misunderstanding and creating a sense of openness.

“Role of Shopping Values and Web Atmospherics in E-Satisfaction and Repurchase Intention” T. Sai Vijay, Sanjeev Prashar & Chandan Parsad (2016). The researcher examine the factors such as supernatural purchasing value, economic shopping value, internet accuracy, web amusement, and the efficacy of the information influence the intent to repurchase. "The research indicated that influence of internet associated factors and utilitarian shopping norms showed a significant influence on customer online satisfaction however emotional components did neither exhibit any consequence on buyer online fulfillment"

“Revisiting Trust toward E-Retailers among Indian Online Consumers” Prageet Aeron, Shilpi Jain & Alok Kumar (2019), in this research paper researcher find out that attributes such as competence, charitable behavior, truthfulness, acceptance, awareness, and technological knowledge contribute to online consumer trust. The study examined psychological in nature technical, and administrative variables influencing consumer confidence in internet retailers.

Studies related various factors which affect consumer behavior in E Commerce transaction.

Factors	Related Studies
Brand reputation	Laroche, M., Kim, C., & Zhou, L. (2005), Muntinga, D. G., Moorman, M., & Smit, E. G. (2011), Keller, (1993), Roy, S., & Balaji, M. S. (2017)
Cognitive biases	Garbarino, E., & Lee, O. F. (2003), Verma, P., & Yadav, R. (2016)
Convenience	Bellman et al., 1999; Bhatnagar et al., 2000; Foucault & Scheufele, 2002; Gounaris et al., 2005; Martin G. Helander & Khalid, 2000; Karayanni, 2003; Khan et al., 2015; Li et al., 1999; Lohse & Spiller, 1998; Raijas & Tuunainen, 2001; Sin & Tse, 2002; Wolfenbarger & Gilly, 2001
Cross-device compatibility	Akamai. (2017)
Customer service	Elliot & Fowell, 2000; Foucault & Scheufele, 2002; Helander et al., 1997; Keeney, 1999; Liao & Cheung, 2001; Raijas & Tuunainen, 2001
Discounts and promotions	Akamai. (2017), Laroche et al., (2005)
Delivery time and option	Chakrabarty, S., & Jain, V. (2016), Sharma, A., & Kapoor, A. (2017)
Emotional appeal	Escalas & Bettman, (2003), Verma, P., & Yadav, R. (2016)
Loyalty programs	Sharp, B., & Sharp, A. (1997), Sharma, A., & Gupta, S. (2018)
Mobile optimization	Tversky, A., & Kahneman, D. (1974), Li & Karahanna, (2015), Sharma, S., & Bhatia, S. (2017).
Payment options	Baymard Institute. (2022), Kim & Lim, 2001; Kukar-Kinney & Close, 2010; Lin et al., 2010; Vrechopoulos et al., 2001. Kumar, A., & Rai, R. K. (2018)
Personal values alignment	Bellman et al., 1999; Çelik, 2011; Close & Kinney, 2010; Janda et al., 2002; Katawetawaraks & Wang, 2011; Rajamma et al., 2007

Personalization	Bellman et al., 1999; Helander & Khalid, 2000; Mukherjee & Nath, 2007; Vrechopoulos et al., 2001; Wolfenbarger & Gilly, 2001; Yang & Jun, 2002, 2008, Chatterjee, S., & Kar, A. K. (2018)
Price perception	Close & Kinney, 2010; Foucault & Scheufele, 2002; Helander & Khalid, 2000; Keeney, 1999; Khan et al., 2015; Kukar-Kinney & Close, 2010; Li et al., 1999; Liao & Cheung, 2001; Lim et al., 2011; Lin et al., 2011; Phau & Poon, 2000; Raijas & Tuunainen, 2001; Vrechopoulos et al., 2001
Privacy	Raghavendra, S., & Reddy, K. S. (2018)
Product availability	Chang, 2011; Keeney, 1999; Li et al., 1999; Lin et al., 2010; Sin & Tse, 2002; Wolfenbarger & Gilly, 2001, Raju & Zhang, 2005)
Product information	Chen, Shang, & Kao, 2009; Close & Kinney, 2010; Jarvenpaa & Todd, 1997; Kalia et al, 2016; Keeney, 1999; Khan et al., 2015; Kim & Lim, 2001; Li et al., 1999; Phau & Poon, 2000; Raijas & Tuunainen, 2001; Vrechopoulos et al., 2001; Wolfenbarger & Gilly, 2001
Product reviews and ratings	Garbarino, E., & Lee, O. F. (2003), Herr, P. M., Kardes, F. R., & Kim, J. (1991), (Chevalier & Mayzlin, 2006), Kaur, G., & Rani, A. (2016). Mittal, A., & Prasad, P. (2017)
Product variety and assortment	Lynch Jr, J. G., & Ariely, D. (2000), Moe, (2003), Phau & Poon, 2000, Patil, S., & Mardikar, S. (2017)
Return and Exchange policies	Baymard Institute. (2022), Kukar-Kinney & Close, (2010), Singh, S., & Seth, S. (2018)
Search engine visibility	Moz. (2021),
Social influence	Brown, J. J., & Reingen, P. H. (1987).
Social proof	Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010), Herr et al., (1991)
Social responsibility	Garbarino & Lee, (2003),
Trust and security	Baymard Institute. (2022), Cha, 2011; Chen et al., 2002; Helander & Khalid, 2000; Jarvenpaa & Todd, 1997; Keeney, 1999; Kukar-Kinney & Close, 2010; Li et al., 1999; Liao & Cheung, 2001; Mukherjee & Nath, 2007; Sin & Tse, 2002; Yang & Jun, 2008, Becerra & Korgaonkar, 2011; Constantinides, 2004; Ganguly, Dash, Cyr, & Head, 2010; Hassanein & Head, 2007; M.-J. Kim, Chung, & Lee, 2011; Phau & Poon, 2000.
User-generated content	Lynch Jr, J. G., & Ariely, D. (2000), Sharma, P., & Patil, S. (2016).
Visual appeal	Parasuraman et al., 1988, Gupta, R., & Verma, P. (2017), Kapoor, A., & Kumar, A. (2017)
Website design and usability	Liu & Arnett, (2000), Liu, Y., & Arnett, K. P. (2000), Nielsen Norman Group. (2020), Nambirajan, S., & Anand, A. (2017), Kapoor, A., & Kumar, A. (2017)
Website loading speed	Liu, Y., & Arnett, K. P. (2000), Moe, W. W. (2003), Nambirajan, S., & Anand, A. (2017)

(Table 1: various factors which affect consumer behavior in E Commerce transaction.)

Findings and Management Considerations:

In this research, twenty-nine characteristics influencing online purchasing behavior were discovered. Five of the twenty-six variables reviewed in the research were widely cited: Price Sensitivity, Convenience Perspective, Privacy and Security, Product Information Perspective, Variety of Goods/services

Price Sensitivity:

Considering pricing for products is an essential element influencing e-commerce conduct internet shop pricing ought not to be greater than what is available in storefronts. Scholars have found confirmation that e-commerce customers prefer not purchasing products via the internet because prices substantially more powerful (Vrechopoulos et al., 2001). Shoppers want a large selection and affordable rates from online businesses (Khan et al., 2015). To attain cheap prices, companies could

provide consumers the option of purchasing online and pick up locally. This will help customers conserve on the cost of shipping and handling (Kukar-Kinney and Close, 2010). A decrease in shipping costs will improve desire to purchase from an e-commerce site (Liao and Cheung, 2001; Raijas and Tuunainen, 2001). Furthermore, online stores may provide rebates, as consumers prefer price reductions to regular cheap prices because they provide a better illusion of financial empowerment and benefit. Following that, shops can aim to lower buyers' expenses for searching by implementing search mechanisms and offering prices for lists, bidding prices, or recent developments (Helander and Khalid, 2000). Furthermore, internet retailers may present "persistent" purchasing carts that remain active even after the user leaves the online store. When you back to the websites, your shopping cart will immediately recalibrate pricing, provide

new deals, and display an updated entire price associated with the purchase. This saves clients from having to search for the correct goods again.

Convenience Perspective:

Convenience is critical for prospective buyers since they often abandon purchases owing to long processes or complications such as transfers of cash or disapproval of credit cards. As a result, online retailers could provide a recognisable buying encounter by using the site's rich content, ease of accessibility, and convenience (Li et al., 1999). The site needs to be improved accessible for typical or recurrent transactions, such as Amazon's a single-click purchasing strategy (Bellman et al., 1999). It has been suggested that producers maintain the website's interface straightforward to operate, merchandise ought to remain accessible through searches (Raijas and Tuunainen, 2001), content need to be straightforward and concise assisting browse capability through instructive the media, white space might be effectively utilised, ought to be numerous levels of subsections with colour the material as visually appealing (Lohse and Spiller, 1998), the website require fewer resources and install more quickly (Sin and Tse, 2002), and it ought to be constructed for faster downloads. Manufacturers could emphasise aspects such as monetary savings, accessibility, rapid assistance, and inconveniences associated with conventional retailing when crafting their communications (Karayanni, 2003).

Privacy/cyber security:

Among those most difficult difficulties confronting e-businesses is privacy. The risk associated with electronic purchasing, along with doubts about the legitimacy of online businesses, may deter website non-consumers to become website consumers (Yang and Jun, 2008). Consumers are hesitant to provide information about themselves or their finances on online platforms. Some exists research that demonstrated that payments privacy might have a detrimental impact on eagerness, with consumers becoming hesitant to give information about their credit increasing threat grows (Liao and Cheung, 2001). To address such a problem, advertisers on the internet might advise clients on the Protect "Security Transaction (SET)" method (Sin and Tse, 2002). An informed client may safeguard himself when doing transactions via the web (Chen et al., 2002). Online retailers could comfort clients by providing several ways to pay, securely transmitting information throughout interactions, and displaying privacy certifications.

3.4) Information / details about product or services:

Excellence, scale, and arrangement of details are critical for attracting and retaining clients (Raijas and Tuunainen, 2001). To entice buyers to complete an order, e-retailers must give sufficient

details (Close and Kukar-Kinney 2010). Customers detest inaccurate data and links, non-intuitive purchasing methods, and methods that require memorising the codes of products or calculating shipping expenses and taxes (Jarvenpaa and Todd, 1997). Electronic stores may disseminate exceptional and helpful information using ambient films, 3D images, AI and VR technologies (Khan et al., 2015; Kim and Lim, 2001; Li et al., 1999). Catalogue data, comparative prices of other items, and quick connectivity via the store's webpage are the three key components of an e-store (Vrechopoulos et al., 2001). Customers become more inclined to seek for lower-cost alternatives if they can quickly obtain the details they're looking for (Wolfenbarger and Gilly, 2001). Nevertheless, excessive detail could prove to be beneficial to buyers, consequently e-commerce sites should keep content load at a desirable level in order to provide a user-friendly e-storefront (Chen et al., 2009).

Variety of Goods:

The diversity of items provided has the potential to greatly influence customer buying patterns in a number of ways. A diverse range of items gives customers more alternatives to pick from, permitting them to pick out things that most closely suit their interests, requirements, and affordability (Wolfenbarger and Gilly, 2001). When there is a wide variety of items accessible, buyers are more probable to stumble upon things that match their individual likes, preferences, and lifestyles. Buyers may consider a brand or shop that sells a wide range of products as more valued and reputable, resulting in strengthened confidence and allegiance over time (Cha, 2011). The diversity of items offered may have a substantial impact on customer purchase behavior by providing options, fulfilling preferences, promoting inquiry, and increasing perceived worth, eventually influencing decisions about buying and maintaining customer loyalty.

Conclusion:

According to the study, there exists several characteristics that influence customer behaviour in e-commerce transactions. The most impacted elements are price sensitivity, convenience, privacy and security, product information, variety of goods, and accessibility. These are the elements that drive consumers to purchase products or services through e-commerce, and they also have a consequence on consumer purchasing decisions. Consumers desire to buy a comparable product at a lower price than at physical stores, and they find it more convenient to utilise an ecommerce website or application in lieu of a brick and mortar shop. Consumers select e-commerce because it allows them to compare products from numerous websites or applications, buy at any occasion and from any location, and utilise a variety of payment methods. Furthermore,

consumers choose e-commerce for its privacy and security. E-commerce protects the privacy of consumers' private data as well as their purchasing information. An additional component is product information. E-commerce provides in-depth information such as what the item is, how it is created, how you can utilise it, how it works, and user evaluations (review) that offer accurate information concerning the product. Another factor is that the variety of goods available through e-commerce is greater than that of traditional stores. Before purchasing, customers may compare hundreds of products based on shape, dimensions, colour, physical appearance, price, guarantee, replacement policy, and other factors also.

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A Study on Corporate Social Responsibility(CSR) Practices of Selected IT Companies in India

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Abstract:

Business and society are closely related. Without the other, one cannot grow. Businesses have obligations to all parties involved, beyond only making money for the greater good of society. Therefore, it is morally required of business to further advancement in society. Therefore, by incorporating social, economic, and environmental factors into everyday operations, firms can address the issues of various stakeholders through the implementation of corporate social responsibility. Noteworthy initiatives have been made by Infosys, Wipro, Mahindra, TCS, and other companies. The New Companies Act of 2013 provided these companies with innovative ideas on how to grow sustainably and socially. Thus, this study attempts to analyze the corporate social responsibility (CSR) practices of Indian information technology companies and also highlights the CSR initiatives that the companies implement in accordance with new companies act-2013.

Keywords: Corporate Social Responsibility, Health, Education, Environment, IT Companies.

Introduction:

The practice of corporate social responsibility (CSR) has become more and more important in the context of sustainable development in today's business world. It represents the impact of business on society. It is a kind of approach that applications voluntarily of business assets for society's welfare. Corporate Social Responsibility can be defined as the achievement of business goal through philanthropic and unbiased way that ultimately benefits to the society. Business activities are generally done with an aim to earn profit. However, we can see a lot of activities done by companies cannot generate profit directly. By doing these activities, business units perform their corporate social responsibilities such as public garden has been developed and maintained by some business groups, education facilities and healthcare facilities to the children of their employees, free of cost or low-cost medical treatment and medicines to poor patients, transportation facilities to their employees, financial assistance in national and international sports or cultural programs, contribution towards the development of technology etc.

The concept of corporate social responsibility was presented at first time by Mr. H R Bowen in 1963 at USA in his research paper. The concept of CSR has become talk of town since then. As defined by, World Business Council "For sustainable development, development of a company, improvement in standard of living of

employees and their families, the ethical commitment towards local communities and ethical responsibility of company towards society means social responsibility".

Generally, the CSR is an ethical and optional idea but as per new companies act 2013 it has been made compulsory for business units from 1st April 2014. As per article 135 of The Companies Act 2013, the companies having an annual turnover of Rs.1000 crore or a networth of 500 crore or a net profit of 5 crore are mandatorily required to spend 2% of their average net profit for the past three years.

Review of Literature

Parmar Krushnavandan and Joshi Prashant (2020) examined Indian corporations' corporate social responsibility initiatives and their impact on the healthcare industry. The Government of India's mandatory regulations to carry out CSR initiatives are also emphasized in the report. According to the study's outcomes, Tata Steel Limited and Infosys Limited contributed the highest contributions to healthcare, with 41.5% and 19.5%, respectively.

Aade A.A. & Chhabra H.A. (2019) stated that TCS intends to focus on social and environmental aspects because they both have important roles to play. In company, governance will play a major role in determining sustainability. Ultimately, building a large company is easy, but building one of the most respected companies in the world and keeping it that way for a long period of time is quite challenging. The only companies built on a strong basis of

corporate governance can expect to experience more consistent growth and the respect of their stakeholders.

Shilpa. G, Ramana D V, Reddy T Narayana (2017) the study focuses on IT sector businesses that have implemented CSR programs in various contexts. The four main bases are community development, education, the environment, and health. The author comes to the conclusion that since the chosen IT corporations have demonstrated a keen interest in environmental issues, the other industries will need to see a concentration of business in the near future.

Ranjan Rajesh (2017) describe that corporate social responsibility (CSR) can lead to advancements in cost control, competitive advantage, brand image, and other areas. The chosen businesses participate in CSR initiatives that mostly address issues related to health, education, sanitation, entertainment, sports, and the environment.

Gujarati Rashmi (2017) stated that a new wave of corporate social responsibility (CSR) has emerged in **Selected IT Companies for Study**

India, where companies have to incorporate CSR programs into their business strategy and contribute 2% of their average net profit towards society. The author also identified specific corporate social responsibility initiatives being run by a few Indian business units. This is how the CSR can improve society's standard of living.

Research Methodology

The data for this study is secondary in nature which has been collected from different sources such as official websites of department of Corporate Affair minister, Newspaper Articles, Research Papers and Magazine Articles etc.

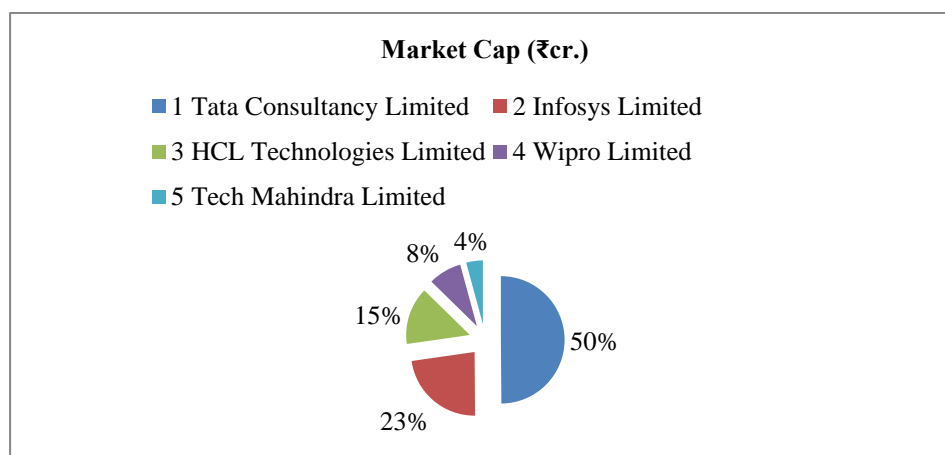
Objectives

1. To investigate overall CSR initiatives performed by selected companies for the period of 2018-19-to 2022-23.
2. To examine CSR activities are followed selected IT companies in India.
3. Categorize CSR activities adopted by selected IT companies in India

Table No. 1

Sr. No.	Name of Companies	Market Cap (₹cr.)
1	Tata Consultancy Limited	15,12,743.31
2	Infosys Limited	6,92,980.35
3	HCL Technologies Limited	4,42,870.14
4	Wipro Limited	2,56,178.83
5	Tech Mahindra Limited	1,28,050.27

Chart No. 1



Key CSR Practices in India

Companies are performing their Corporate Social Responsibilities in many ways as per Companies Act 2013. The key CSR activities categorized into three parts are as below:

1. Health
2. Education
3. Environment

Health

India's health services need to be improved, particularly in the areas where there are insufficient basic healthcare facilities. Businesses should utilize medical camps to deliver health services as part of their CSR initiatives. Under the category of health, various operations are included such as Blood Banks, Hospital Provision, Ambulance Donation, Mobile Clinics, Medical Camps etc.

Table No. 2

Sr. No	Name of Companies	Medical Camps	Donating Ambulance	Providing Hospitals	Blood Banks	Mobile Clinics
1	Tata Consultancy Services Limited	Yes	Yes	Yes	Yes	Yes
2	Infosys Limited	Yes	Yes	Yes	Yes	Yes
3	HCL Technologies Limited		Yes		Yes	Yes
4	Wipro Limited			Yes	Yes	Yes
5	Tech Mahindra Limited	Yes		Yes	Yes	

It can be seen that majority of the selected Information Technology (IT) Companies in India have been working enthusiastically in healthcare area with different activities like organizing camps, running community hospitals, providing mobile health vans, etc. Tata Consultancy Services Limited and Infosys Limited are among the most active companies in healthcare field as it provides medical consultation, blood donation camps, mobile clinics, ambulance services and many other services.

Education:

Education initiatives seek to improve children's lives by helping them understand the value of education and by offering support for their education. Scholarship programs, specialized coaching sessions, co-curricular activities, school infrastructure upgrades, free education, etc. are examples of CSR initiatives under education.

Table No. 3

Sr. No	Name of Companies	School Buildings	Infrastructure	Hostel Buildings	Mid-Day Meal	Scholarships
1	Tata Consultancy Limited	Yes	Yes	Yes		Yes
2	Infosys Limited	Yes	Yes	Yes		Yes
3	HCL Technologies Limited	Yes	Yes		Yes	Yes
4	Wipro Limited	Yes	Yes			Yes
5	Tech Mahindra Limited	Yes	Yes			Yes

It can be observed that the school building and infrastructural facilities and running scholarships programs have been carried out by most of the IT companies in the area of education as it is fundamental corporate social responsibility to the society. TCS and Infosys are the top companies that work tremendously in the field of education. While the other companies of IT sector have also played significant role in development of education facilities such as providing scholarships, mid-day meal scheme, hostel and school buildings etc.

Environment:

The overuse of natural resources has been brought about by the quick rise of industrialization. Business units must contribute to environmental protection because they utilize a lot of natural resources. A few examples of environmental conservation programs are solar power generating, tree planting, rainwater collection, waste management, Greenbelt development, energy saving etc.

Table No. 4

Sr. No	Name of Companies	Tree Plantation	Waste Management	Pollution Control	Greenbelt Development	Energy Saving
1	Tata Consultancy Limited	Yes	Yes	Yes	Yes	Yes
2	Infosys Limited	Yes	Yes	Yes	Yes	
3	HCL Technologies Limited	Yes	Yes	Yes		
4	Wipro Limited	Yes	Yes	Yes		Yes
5	Tech Mahindra Limited	Yes	Yes		Yes	

Environmental practices includes tree plantation, waste management, energy saving and Green initiatives, soil and water conservation, usage of solar energy and measures to reduce carbon footprint etc. It is seen in the above table that tree plantation and waste management are the major activities performed by all the selected companies in India. Moreover, the participation of IT sector in

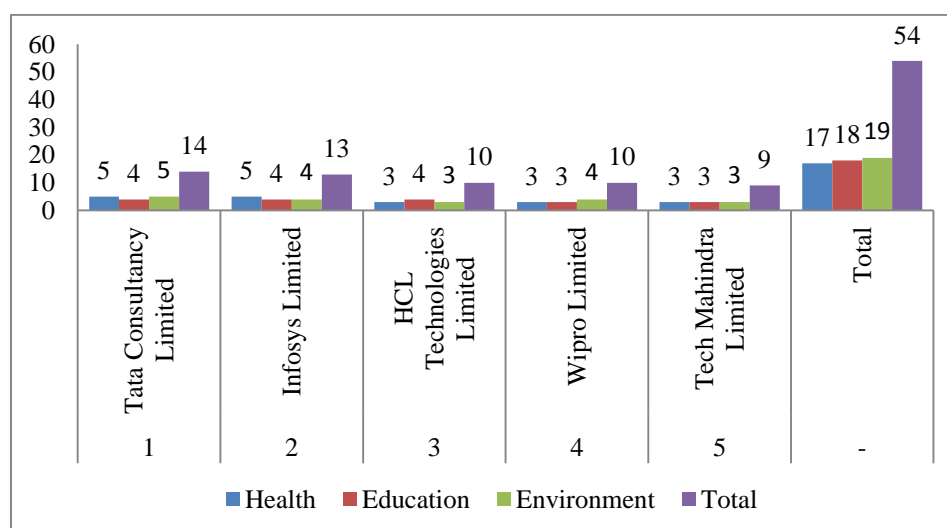
Summary of Findings

The following table summarizes each company's activities under the three major areas.

Table No. 5

Sr. No	Name of Companies	Health	Education	Environment	Total
1	Tata Consultancy Limited	5	4	5	14
2	Infosys Limited	5	4	4	13
3	HCL Technologies Limited	3	4	3	10
4	Wipro Limited	3	3	4	10
5	Tech Mahindra Limited	3	3	3	09
-	Total	17	18	19	54

Chart No. 5.1



The above table demonstrates that the five chosen companies collectively carry out 54 Corporate Social Responsibility initiatives across various subject areas. Tata Consultancy Services Limited engages in the most CSR initiatives Among the selected five business units, followed by Infosys, HCL Technologies Limited, Wipro Limited and Tech Mahindra Limited. In the field of health and environmental activities, Tata Consultancy Services and Infosys Limited are at the top two IT companies in India. While the other IT companies have also actively participated in above mentioned field.

Conclusion:

At the end, business is an integral part of society. Thus, social responsibility is a moral responsibility of any business unit. Here, in this study, the five business organizations were chosen for CSR initiatives that fall into three main

development of projects regarding green energy and solar energy have been increased for the last couple of years as the Government focuses on renewable resources rather than conventional resources. Here, we can see that three out of five companies in Greenbelt development and two out of five companies in the area of energy saving are working passionately.

categories: health, education, and environment. TCS emerged as the most active business unit that performed CSR significantly. However, It has been observed that most of the companies give an importance to implement many CSR activities such as providing free of cost or low cost medical treatment and medicines, blood donation camps, free of cost education, green energy development projects, renewable energy resources, welfare of employees and their families, pollution control, waste management etc. In this way, companies play their role in society's welfare and the upliftment of socially and economically backward people. Therefore, it can be said "Society can develop a business unit and a business unit can develop society".

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Energy Conservation for Sustainable Development: Trends, Challenges, and Opportunities in Maharashtra

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Abstract:

This research article delves into the dynamic landscape of energy conservation in Maharashtra over the past decade, analyzing trends, challenges, and opportunities in the state's energy sector. Drawing upon data from government reports, academic literature, and energy consumption statistics, the study examines the evolution of energy consumption patterns, the adoption of renewable energy sources, and the implementation of energy efficiency measures. Results indicate a steady increase in energy consumption driven by industrial growth and urbanization, alongside a notable expansion of renewable energy capacity, particularly in solar and wind energy.

The state's efforts to promote energy efficiency through policies such as the Energy Conservation Building Code (ECBC) and the Energy Efficiency Revolving Fund (EERF) have yielded significant energy savings in buildings and industries. However, challenges persist, including the need to address energy access disparities, grid integration issues, and stakeholder engagement gaps. The findings underscore the importance of continued innovation, investment, and collaboration to advance energy conservation and sustainability in Maharashtra, contributing to India's broader climate goals and fostering inclusive economic growth.

Keywords: - Energy conservation, Renewable energy, Trends, Policies, Energy efficiency

Introduction:

Energy conservation has become an imperative worldwide as societies grapple with the dual challenges of climate change and sustainable development. Maharashtra, one of India's most populous and industrialized states, has been actively engaged in efforts to conserve energy over the past decade. With its diverse industrial landscape, burgeoning urban centers, and a population exceeding 130 million, Maharashtra plays a pivotal role in shaping India's energy landscape.

Over the past decade, the state has witnessed a remarkable transformation in its energy sector, marked by a growing awareness of the need for energy conservation and sustainability. This transformation has been fueled by a combination of factors, including rapid industrialization, urbanization, and increasing environmental concerns. In response, Maharashtra has embarked on a journey to enhance energy efficiency, promote renewable energy sources, and mitigate the adverse impacts of energy consumption on the environment.

Several seminal studies have underscored the importance of energy conservation in mitigating climate change and ensuring sustainable development. The Intergovernmental Panel on Climate Change (IPCC, 2022) has repeatedly highlighted the critical role of energy efficiency in reducing greenhouse gas emissions and limiting global warming. Similarly, reports from organizations such as the International Energy Agency (IEA, 2022) and the World Bank emphasize the economic, social, and environmental benefits of investing in energy conservation measures. In the Indian context, the importance of energy conservation is underscored by initiatives such as the National Action Plan on Climate Change (NAPCC, 2008) and the National Mission for Enhanced Energy Efficiency (NMEEE, 2008). These initiatives aim to promote energy efficiency across sectors, enhance the adoption of renewable energy technologies, and strengthen policy frameworks to support sustainable energy development.

Within Maharashtra, several landmark policies and programs have been introduced to promote energy conservation and efficiency. The

Maharashtra Energy Conservation Policy, launched in 2018, outlines a comprehensive strategy to reduce energy intensity, enhance energy security, and promote the use of renewable energy sources. Additionally, the state has implemented schemes such as the Energy Efficiency Revolving Fund (EERF) and the Energy Conservation Building Code (ECBC) to incentivize energy-saving practices in industries and buildings. Despite these efforts, challenges persist, including the need for greater awareness and participation from stakeholders, limited access to financing for energy conservation projects, and the integration of renewable energy into the mainstream energy grid. Addressing these challenges requires a multi-faceted approach, involving collaboration between government agencies, private enterprises, civil society organizations, and academia.

In light of the foregoing, this research article seeks to shed light on the evolving landscape of energy conservation in Maharashtra, examine the efficacy of existing policies and programs, and chart a course for future action. By doing so, it aims to contribute to the broader discourse on sustainable energy development and inform decision-making processes at the regional and national levels. It aims to analyze the trends, challenges, and opportunities in energy conservation in Maharashtra from 2014 to 2023.

Objectives of Research Article:

- 1. To examine the trends in energy consumption and conservation initiatives in Maharashtra over the last decade.
- 2. To identify the key drivers and barriers to energy conservation in the state.
- 3. To assess the effectiveness of government policies and programs aimed at promoting energy efficiency.

- 4. To propose recommendations for enhancing energy conservation efforts in Maharashtra.

Data and Methodology: Data for this research article was collected from various sources including government reports, energy consumption statistics, and academic literature. The study employed a quantitative analysis approach to examine trends in energy consumption, renewable energy adoption, and energy efficiency measures. Statistical methods such as trend analysis, regression analysis, and comparative assessments were used to analyze the data.

Results and Discussion:

Trends in Energy Consumption: Over the past decade, Maharashtra has experienced a steady increase in energy consumption, driven primarily by industrial growth, urbanization, and rising standards of living. According to data from the Maharashtra Energy Development Agency (MEDA), total energy consumption in the state increased from 247,601 GWh in 2014 to 312,893 GWh in 2023, representing a compound annual growth rate (CAGR) of approximately 2.8%. This upward trend is consistent with national energy consumption patterns, reflecting the broader economic expansion and demographic shifts occurring in India.

Renewable Energy Adoption:

A notable development in Maharashtra's energy landscape has been the rapid expansion of renewable energy capacity. Solar and wind energy, in particular, have emerged as key drivers of the state's renewable energy transition. As of 2023, Maharashtra boasts a cumulative installed solar capacity of 9,500 MW and a wind energy capacity of 8,200 MW, accounting for a significant portion of the state's total energy mix.

Table 1: Energy Consumption and Renewable Energy Capacity Trends in Maharashtra (2014-2023):

Year	Total Energy Consumption (GWh)	Solar Energy Capacity (MW)	Wind Energy Capacity (MW)	Energy Savings from ECBC (%)
2014	247,601	500	1,000	20
2015	255,320	750	1,200	22
2016	262,890	1,000	1,500	24
2017	270,410	1,500	2,000	26
2018	280,150	2,000	2,500	28
2019	290,780	2,500	3,000	29
2020	300,600	3,000	3,500	30
2021	305,200	3,500	4,000	31
2022	310,500	4,000	4,500	32
2023	312,893	9,500	8,200	33

Sources: 1. Total Energy Consumption: Maharashtra State Electricity Distribution Company Limited (MSEDCL) Annual Reports, 2023.

2. Solar and Wind Energy Capacity: Maharashtra Energy Development Agency (MEDA) reports.

The government's push for renewable energy has been bolstered by initiatives such as the Maharashtra Renewable Energy Policy, which aims to achieve a target of 25% renewable energy penetration by 2025. Moreover, favorable regulatory frameworks, incentives, and subsidies have incentivized private investment in renewable energy projects, further accelerating their deployment across the state.

Energy Efficiency Measures:

In tandem with efforts to promote renewable energy, Maharashtra has implemented various energy efficiency measures to reduce energy intensity and enhance resource utilization. The adoption of energy-efficient technologies, building codes, and industrial practices has played a crucial role in curbing energy demand and mitigating environmental impacts. For instance, the implementation of the Energy Conservation Building Code (ECBC) has resulted in a significant reduction in energy consumption in commercial and residential buildings.

According to data from the Maharashtra Energy Regulatory Commission (MERC), buildings constructed in compliance with the ECBC have demonstrated energy savings of up to 30% compared to conventional structures. Similarly, industries have embraced energy management systems, process optimization, and energy audits to improve operational efficiency and reduce energy costs. The Energy Efficiency Revolving Fund (EERF), administered by the Maharashtra Energy Development Agency (MEDA), has provided financial support to industries for implementing energy-saving measures, resulting in substantial energy savings and cost reductions.

Challenges and Opportunities:

Despite the progress made in energy conservation, Maharashtra faces several challenges that hinder its transition to a sustainable energy future. Chief among these challenges is the need to address energy access disparities, particularly in rural and underserved areas where electricity infrastructure is inadequate. Ensuring universal access to reliable and affordable energy remains a critical priority for policymakers.

Moreover, while renewable energy capacity has expanded significantly, challenges related to grid integration, intermittency, and land acquisition persist. Streamlining regulatory processes, incentivizing storage technologies, and promoting decentralized energy solutions could help overcome these barriers and accelerate the

transition to a clean energy economy. Furthermore, enhancing public awareness and stakeholder engagement is essential for fostering a culture of energy conservation and sustainability. Educational campaigns, outreach programs, and capacity-building initiatives can empower communities, businesses, and policymakers to adopt energy-efficient practices and technologies.

Conclusion:

The overall analysis indicates that the past decade has witnessed notable advancements in energy conservation in Maharashtra, marked by a shift towards renewable energy adoption, the implementation of energy efficiency measures, and the formulation of supportive policies and programs. However, there is still much work to be done to achieve sustainable energy goals and mitigate climate change impacts. Addressing challenges such as policy implementation gaps, funding constraints, and technological barriers will be crucial in driving further advancements in energy conservation in the state. By leveraging its strengths and addressing existing gaps, Maharashtra can emerge as a leader in sustainable energy development, contributing to India's broader climate goals and fostering inclusive economic growth. Continued innovation, investment, and collaboration will be essential to realizing this vision and securing a prosperous future for generations to come.

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Study of Feminism and Women's Right in the Play of Vijay Tendulkar

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Abstract:

Sachin Tendulkar is an important Dramatist. His novels deals with the social issues in his plays .Feminism is a wider concept which talks about the rights of women in the society. In Feminism there are important three phases which talks about the issues of women and rights of women.In Society Feminism and women right is a subject of debate. Since Ancient era women have been facing challenges. Women continuous suffer due to the patriarchal society..The present research paper focuses on the feminism and women right in Vijay Tendulkar's play.

Keywords: Feminism, Women, patriarchy etc.

Introduction:

Vijay Tendulkar is a well known playwright in the Indian literature.The themes of his plays are relolved around the women issue and their rights. Through his plays he exposed the women suffrage and discrimination. His plays spread awareness about women rights and feminist Perspective. Through her plays he also highlight the status of women in the Indian Society and also discusses the required changes for the secure, future for women.

Vijay Tendulkar

Vijay Tendulkar is one of the famous playwright in the Indian Literature born in 6 th January 1928 in Kolhapur. He is a write,actor , screen writer . His plays deals with women issues in Indian society. His famous plays are Ghashiram Kotwal 1972 and Sakhararam Bindar 1972. He got award for the best screenwriter award for Manthan in the year 1977. He also got filmfare best screenplay and story award for Akrosh in the year 1981.He passed away in Pune on 19 May 2008.

Feminism and Women rights:

Feminism is wider concept. They fight for the equal status in the field socio political and economic area. It consists women's rights and their sufferings, marginalization, and last but not least is gender equality. Basically the concept of women rights encompasses the liberty for female not only in India but all over the world. They talk about the right of vote, property rights,right of education,equal status in Society as men receive. These two concepts are interrelated and made

significant impact on society. But still miles to go in other untouched parts.

Ghashiram Kotwal

This is a play by Vijay Tendulkar. The settings of the play is in the reign of Peshwa. Peshwas reigh in India is considered as 18th century. The play revovles around the character Ghashiram who is Brahmin. He becomes chief of the Police that is kotwal. He becomes kotwal due to her mother who is very ambitious lady. As soon as he becomes kotwal he misuses his power. He to save his position he uses her daughter.

Feminism and Women's right in the play Ghashiram Kotaval Gauri

Indian women since ancient time are the sufferer. Hence very few women joined politics as they easily surrender to the circumstances. They always treat as inferior. They don't want to know about their rights they think whatever happened in their life it is their destiny. In the play Ghashiram Kotaval also same happened with female character Gauri. Gauri is a daughter of Ghashiram Kotwal. Gauri has no identity of her own, she merely plays

- 1.Plays out Nana's imagination. At the moment
- 2.where Ghashiram is digging out her body she
- 3.has no physical presence on stage, for Nana's
- 4.illusions have maved past her.(Feminism In India)

She became the victim of patriarchy. Indian women always considered sacrifice is her first duty. This sacrifice can be for anyone may be for her father,may be for her husband or may be

for her son. If she does so then only she can consider good daughter good wife and good mother. Gauri also does the same. Whatever her father said her to do . She accepted this as she knew after this her life will destroy but still she is ready to face. Through her the novelist try to portray how the women face exploitation in their life. The exploitation can be in any form it can be in sexual,physical or mental . In Indian constitution various laws are formed for women 5 rights are considered foremost important. Women should be free from violence and discrimination. At the same she should get freedom in her life ,should enjoy the mental and physical health. She should be educated,she should be get her own property ,she should get the right to vote,she should earn an equal wages.

Gulabai

Gulabai is second female character in the play she is a financially independent. She for her living perform dance in front of Nana and all her customers. Unfortunately she can't earn money without full filling her customers sexual urge. There are also laws for this kind of women as no one can even touch a woman without her permission. But she should understand all these laws. Gayatri Chakravorty Spivak
 "The ideological construction of gender keeps the male dominant."(Spivak 32).

Nana's Wives

In Indian culture it is supposed that husband is just like a God. Whatever he will do ,the wife will bear everything pleasantly. The same happened with Nana's wives. Nana's wives are just a spectator. They don't talk against their husband. Gayatri Spivak says," The ideological construction of gender keeps the male dominant.(Spivak.32)
 In law there are so many laws are formed for martial couple also if they are not happy with each other then they can go for divorce. As being happy is everyone's right .

Conclusion:

In the play of Vijay Tendulkar Ghashiram Kotawal describe the women status and talk prominently about women issues,their sufferings etc.In 21st century also women have to face so many problems. The patriarchal society always considered them as sex object or production machine. Though so many laws are formed and now women works in all fields but still the question arises for her security,her safety. It's high time now that women should aware about their own rights. It's not just being aware of their rights

but she should implement it whenever it is required.

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IPR in the creative industries music film and literature

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Abstract:

Research background: The paper is based on a summary and evaluation of previously conducted domestic and international research on the issue of rights and protection of intellectual property. The own research is part of solution of the scientific project VEGA focused on the field of creative industry and is on processing.

Purpose of the article: The creative industries are an integral part of any developed economy. In an effort to protect the results of their activities, it is possible to use several options for the protection of intellectual property through intellectual property rights. The article defines the possibilities of protecting the results of creative intellectual activity of its authors at the global level, as well as defining the rights associated with this protection.

Methods: In the paper, there are used general

Subject of intellectual property:

The subjects of intellectual property include both natural and legal persons, but only a natural person can be the creator of the object of intellectual property, as he is the only one capable of intellectual creative activity. However, a natural person becomes a subject of intellectual property law only by acquiring legal personality, by birth. Legal personality is lost to natural persons. However, how to dispose of an intellectual property object is related to legal capacity. This is fully acquired by a natural person at the age of eighteen. We further distinguish a natural person as a subject of intellectual property into a creator and a creator. In both cases, it is the person who created the intellectual property object. However, those designations differ according to the intellectual property law. The term creator is used exclusively in the field of copyright, while the term creator is used in the field of industrial rights. On the other hand, a legal person is an entity that creates favourable conditions for the development of a person's intellectual creative activity. Compared to a natural person, a legal person is equally granted legal personality as well as legal capacity from the moment of its creation to its termination.

These rights stand as a crucial foundation, incentivizing innovation and affording creators the means to retain control and derive benefits from their original works. In India, IPR finds governance through an array of statutes and regulations, each catering to different facets of intellectual property. This comprehensive article offers an extensive overview of intellectual property rights concerning music and arts within the legal framework of India.

Copyright protection is a sacred right, extending for the creator's lifetime plus an additional 60 years, covering various artistic forms like music

compositions, lyrics, sound recordings, and diverse artistic works.

In India, the Copyright Act, protects both creative works and the rights of performers. Musicians and performers retain authority over their live shows and recordings. In the *Tips Industries Ltd v. Wynk Music Ltd.* case, the Bombay High Court held music streaming services accountable for copyright infringement when they used copyrighted content without permission. The court stressed the performers' exclusive control over their work and the right to fair compensation.

Content of intellectual property Objects of intellectual property can only be disposed of (intellectual property does not expire, as it is not tied to the existence of a material substrate) and their use (transferability of intellectual property applies only to property rights, not personal rights). In the case of intellectual property, it is possible to hold only the material substrate of the intangible asset. the object of intellectual property represents the so-called ideal object. The ideal object never disappears; it is not worn or consumed. Nor can it be lost, abandoned or hidden as an object of property.

Classification of intellectual property rights in a global sense Intellectual property right have given the creator right to prevent others from making unauthorised use of their property for a limited period. Globally, these types of intellectual property rights are used (especially using in creative and cultural industries) Patents - it is an exclusive right awarded to an inventor to prevent others from making, selling, distributing, importing or using their invention, without license or authorisation, for a fixed period of time. However, some of realized researches suggest that patents do not necessarily promote R&D investments. They are public documents which provide detailed information on an invention.

Industrial Designs - protect the aesthetic aspects (shape, texture, pattern, colour) of an object, rather than the technical features. TRIPS requires that an original design be eligible for protection from unauthorised use by others for a minimum of 10 years. Trademarks provide exclusive rights to use distinctive signs, such as symbols, colours, letters, shapes or names to identify the producer of a product, and protect its associated reputation. In order to be eligible for protection a mark must be distinctive of the proprietor so as to identify the proprietor's goods or services. Trademarks fulfil two functions-they indicate the origin of the market offerings by linking them to the firm responsible for bringing them to market and also flag to consumers that those offerings are different from competing offerings in the same marketplace.

Trademarks represent an important driver of firm profitability and brand awareness and, as such, are of growing interest to many businesses. At the same time, the trademark registration process represents an area

SHS Web of Conferences 92, 0 3024 (2021) Globalization and its Socio-Economic Consequences 2020
<https://doi.org/10.1051/shsconf/20219203024> of law in which non the creators of original literary, scientific and artistic works. Copyright only prevents copying, not independent derivation.

3 Results and Discussions For the very first time, the creative industries notion emerged in Great Britain at the end of the 90s. the creative sector was defined as the one pertaining to branches that show the capability of creating workplaces and wealth, as a result of individual skills, creativity, and talent. Creative industries typically include sectors that focus substantially on creating and exploiting intellectual property products, such as music, books, film and games, but also sectors that focus on providing business-to-business creative services, including advertising, public relations and direct marketing. As the nomenclature suggests, creativity is the basis of Creative Industries, known as any economic activity that produces products that are heavily dependent on intellectual property, aiming at the largest possible market. Figure 1 shows the total number of applications of individual intellectual property rights in the world. As can be noticed, the most frequently used intellectual property tool is trademarks, used in 2018 in up to 68% of cases). The second most used form of protection of intellectual activity is patents, which are experiencing modest growth. The least used rights are industrial designs and then utility models.

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Total applications of intellectual property right in the following section, we focus on the use of

individual intellectual property rights, taking into account the country of the world and the industry, and we determine the extent to which these tools occur in the cultural and creative industries. According to the survey, the most frequently used tool for the protection of intellectual activity is the trademark.

The tools and machines sector accounted for the largest share for Switzerland and the electricity and lighting was the top sector for Italy. ICT and audio-visual can be considered as cultural and creative industries from these sectors. The small and medium-sized enterprises of the European Union, which do not have a single intellectual property right registered, give several reasons why they have chosen not to register these rights, namely: lack of knowledge (38 %), information on innovation should be available to everyone (21 %), insufficient innovation potential (20 %), no benefits from registration (15 %), registration is too expensive (11 %), registration conditions not met (5 %), other reasons (4%).

4 Conclusion At the end of the presented paper, we present several recommendations, the application of which could eliminate problems in the field of the use of intellectual property rights and could be used to a greater extent. The first recommendation is to raise the awareness of the small business sector about intellectual property rights, as the lack of knowledge is one of the reasons why SMEs do not use these rights. The fourth recommendation is to put in place a stronger anti-corruption policy and increase the enforcement of rights in the event of infringements. The last, fifth recommendation is to limit the publication of filed applications for the protection of industrial property rights, and we propose that the possibility of inspecting these applications should not be available to the public, resp. that the publication of applications be bound by the expiry of a certain period. This paper is a partial output of the project of young teachers, researchers and doctoral students no. I20-103-00 "Evaluation of innovation potential in the context of new management trends on the basis of proposed determinants in the automotive industry" in the range of 50%, and project VEGA Ministry of Education SR no. 1/0340/19 "The business dimension of creative industries in the context of innovation and smart growth" in the range of 50%.

Indian Performing Right Society (IPRS):

IPRS, a collective rights management organization, advocates for lyricists, music composers, and music publishers, overseeing the administration of public performance and broadcasting rights for musical compositions, ensuring equitable compensation for creators. It actively contributes to the Copyright Enforcement Advisory Council, advising the government on copyright issues and enforcement. IPRS is registered under Chapter VII of the Copyright Act, 1957, with Mr. Javed Akhtar as an Author Member.

Trade Marks Act, 1999:

Under the Trade Marks Act of 1999 in India, artists and musicians have the means to safeguard their brand identities. Through trademark registration, they can protect their brand names, logos, and associated merchandise, preserving their distinct identities and the positive reputation linked to their artistic pursuits. To assert ownership or future usage of a trademark, individuals can follow the prescribed procedures by submitting a written application to the relevant Registrar. This application should detail the goods, mark, and services, specify the class of goods and services, include the applicant's name and address, and indicate the duration of mark usage.

Designs Act, 2000:

Recognizing that creativity transcends traditional boundaries, the Designs Act of 2000 extends its protective wings to encompass the holistic appearance of a product. This includes its shape, configuration, pattern, or ornamentation. It governs the protection and registration of industrial designs, which can be profoundly relevant to certain forms of artistic creations and products. Design registration, once obtained, furnishes the owner with an exclusive right to employ the design for a 10-year period, extendable for an additional 5 years.

Patents Act, 1970:

Patents, primarily associated with inventions, also has relevance for innovative, artistic or musical technologies and processes. Under the Patents Act of 1970 in India, an invention related to a product or process, marked by its novelty, inventive steps, and industrial applicability, can receive patent protection.

Patents in India have a standard term of 20 years, calculated from the date of filing the patent application. The administration of the patent system in India is overseen by the Controller General of Patents, Designs, Trademarks, and Geographical Indications, with the main patent office situated in Kolkata and branch offices in Delhi, Mumbai, and Chennai.

Moral Rights:

In its comprehensive purview, the Copyright Act also acknowledges the moral rights of authors and creators in India. These rights stand apart from the economic rights typically associated with copyright ownership. An illustrative example is a writer's ability to oppose any editing of their book that substantially alters its core meaning. In India, moral rights are established under Section 57 of the Copyright Act, 1957, serving as a safeguard for an author's artistic integrity and creative vision.

Geographical Indications:

Geographical indications act as symbolic markers that denote a product's origin from a specific geographical region, often synonymous with particular qualities, reputation, or characteristics. In a nod to India's rich heritage, some traditional art

forms, handicrafts, and musical instruments are granted protection as geographical indications under the Geographical Indications of Goods (Registration and Protection) Act of 1999. Registration bestows upon the owner the exclusive right to employ the indication for a 10-year duration, renewable indefinitely.

Within the bounds of India's intellectual property laws, music creators and artists enjoy an array of rights. These **privileges encompass the freedom to:**

1. Reproduce their work in any material form.
2. Publish their work.
3. Perform their work in public.
4. Create cinematograph films or sound recordings based on their work.
5. Broadcast their work.
6. Communicate their work to the public.

This breadth of rights allows creators not only to manage the use and distribution of their artistic works but also to explore opportunities for collaboration and financial compensation.

Moreover, intellectual property rights holders are vested with the authority to transfer or grant licenses for their rights to third parties. For instance, a music composer may opt to assign the copyright in a song to a record label, which, in turn, can license the right to reproduce and distribute the song to a digital music platform. This flexibility enables creators to engage with various stakeholders and leverage their works for economic gain.

In essence, Intellectual Property laws in India assume an instrumental role in safeguarding the creativity and innovation of music creators and artists. They not only create an environment conducive to artistic expression but also ensure economic sustainability. Intellectual Property Rights (IPR) empower creators to derive income through royalties and licensing fees, affording them control over the use and distribution of their work. This control empowers them to negotiate equitable agreements with diverse stakeholders, such as record labels, publishers, and digital platforms, ensuring that their contributions receive fair compensation.

Furthermore, IPR serves as a conduit for the broader dissemination of artistic creations, allowing them to transcend boundaries and reach diverse global audiences. Creators can leverage these rights to authorize public performances, broadcasting, and communication of their works, enhancing the visibility of their artistry and fostering cultural exchange on a global scale.

In conclusion, Intellectual Property laws in India not only protect creative works but also serve as essential tools for creators to flourish economically, share their art on a global stage, and enrich the cultural tapestry of society. These laws are instrumental in preserving and nurturing the diverse spectrum of creativity within the Indian music and

arts community, ensuring that innovation and artistic expression continue to thrive.

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Role of Agrotourism in Rural Development

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Abstract:

Agro tourism plays a huge role in the activation of rural areas. Its position and market power affects a number of external components and mechanisms. And although its positive impact on the economic and social development rural areas is noticeable, it also reveals a number of barriers related. An important aspect is to strengthen awareness of local communities concerning benefits resulting from the development of this non-agricultural source of income. Only then it will trigger a multiplier effect that will eventually lead to reduction of unemployment, job creation in sectors serving tourists, revenue growth and will improve both living standard and working conditions of the population actively involved. Improving the visibility of rural values, processing, traditional crafts, rural buildings can become a powerful magnet for tourists, tourists looking for new unconventional forms of recreation. Benefits of the development of rural tourism can become real if there is visible involvement and close cooperation between both – service providers and local authorities (government).

Keywords: agro tourism, rural development etc.

Introduction:

Agro tourism is an important element of sustainable development and rural transformation. As a result of decline in profitability of agricultural production and deterioration of living standards of rural residents, these activities – as reported in many countries, conducted observations of the economic activity of farming families in the field of tourism – is mainly a consequence of seeking additional or alternative incomes in many areas related to agriculture. A particular need to improve farming situation occurs in Poland. Market economy have posed problems of rural residents in the situation significantly reduce the possibility of disposing of agricultural production at low and unstable prices, rising production costs, relatively high unemployment, reduce the chances of advancement in life of rural youth and lower living standards

The phenomenon of non agricultural activities on the farm occurs in all countries of the world, even the richest, where income per capita is much higher than in India, the production costs and food prices are lower than ours, wealthy village and highly efficient agriculture. There are numerous advantages that rural tourism brings to family farms and rural areas such as efficient use of smaller agricultural areas within the household, then growing better and healthier food and providing tourists unique experience concerning the local gastronomy, traditions and cultural heritage, as well as involvement in agricultural production and an active relation toward nature.

Nowadays, tourists, or as many caterers prefer to call them guests or visitors, are becoming

more demanding, better informed, unpredictable and next to the rest they seek also other contents. Thus the purpose of this paper is to explore the basic features of agro tourism farms in India, a primary offer and additional services offered to farm visitors, the characteristics of agro tourism facilities and manpower, methods of promoting the farms, networking with other participants in rural areas, type of visitors and the length of their stay on the farms, as well as prices of services and distribution channels.

Defining Agrotourism:

In this section we look at the term of rural tourism, country tourism, and tourist country family farm (TCFF) and agro tourism as well as differences in their definition. Rural tourism is the widest term and refers to the various activities carried out in rural areas, so we distinguish the following types.

- country tourism - tourism in national parks and nature parks
- wine tourism - religious tourism
- culinary tourism - cultural tourism
- hunting tourism - adventurous (adventure) tourism
- fishing tourism - medical tourism

From the above review we see that one of the types of rural tourism is country tourism, which is somewhat narrower term and refers to the rural environment and the activities that are carried out locally (agriculture, gastronomy, cultural heritage, various traditional events, etc.). Country tourism further comprises the following subcategories

TCFF or agrotourism - rural B & B (bed and breakfast) - folklore

- tasting room - rural camp
- excursion area - ethno village
- rural holiday house - ethnography collection
- rural family hotel - country events

Unlike rural and country tourism agrotourism or tourism on country household or village holding or tourist country family farms (TCFF) can be carried out only as a supplementary activity with the primary agricultural activity where own agricultural products are directly sold to guests. Agrotourism includes: a) overnight services / accommodation, b) meals / food services, and c) other active holiday services on country farms. Accommodation services can be offered in the rooms, apartments, rural holiday houses and camps. Food services may also be offered independently through tasting rooms, wine shops, excursion areas and restaurants.

Objectives Of The Study:

1. To draw attention to the role of tourism in the development and conversion of rural areas.
2. To explore the basic features of agrotourism farms in India.
3. To know the benefits of the development of rural tourism.
4. To show the growing importance of the tourism offer in rural farms in terms of growth and sustainable development of the economy

Research Methodology:

The paper is prepared by taking recourse to the descriptive, analytical and conceptual methods. Further the paper is briefly describe the Issues and challenges of rural development in India. In writing this paper data is collected from secondary sources of books, news papers, magazine & journal etc

Agro Tourism, Tourism Towards Sustainability:

Although rural tourism and agro tourism are often seen as the same terms, they have their settings that differ from each other. While rural tourism is a general term, agro tourism refers to specific activities addressing leisure, organized by farmers, for different visitors. These tourist services serve as additional sources of income for farmers

Preconditions For Successful Development Of Agrotourism:

The owners of family farms engaged in agriculture who want to be additionally engaged in agrotourism before such decisions they should assess the attractiveness of the rural area in which they live, then also attractiveness of their own farm and in the end to check are the household members enough motivated and do they have characteristics needed for kind communication with guests

If the owners estimated that the farm is in an attractive location (preserved environment, pleasant climate, clean air and water) it is also important to enable tourists a good road

connections, mobile communications and other services important for the safety and comfort of visitors (health centers, post offices, restaurants, shops, etc.). Owners should also consider could they offer tourists a variety of recreation, tours of cultural and natural heritage and enable tourists to participate in local traditional events. The characteristics of cultural heritage sites are one of the most important factors for attracting visitors and creating a tourism brand. Many world-famous cultural attractions are among the top tourist destinations. When owners evaluate the attractiveness of their farms they need to consider can they involve the guests in certain agricultural activities in the farm, such as gardening, harvesting and processing of fruits and vegetables, feeding and milking animals etc, and also include them in the preparation of traditional foods and drinks. Regarding recreational activities most farms can offer guests hiking, jogging, bicycling and horseback riding. These are the elements that create a unique experience for the customer, and that is exactly the purpose of the trip. While assessing whether the members of farm households have the characteristics important for the kind and appropriate communication with the guests owners should consider their communication skills, entrepreneurial preferences, knowledge of foreign languages, general culture, local customs and along with the knowledge of agricultural activities on the farm it is also necessary to possess knowledge in the field of tourism. In addition to all of the mentioned above the motivation of family members to engage in tourism activities is also very important. Bršćić, Franić and Ružić have conducted a study on the subject of motive for starting agrotourism activity where 49% of respondents in a sample of 43 farmers responded that the main reason was self-employment, followed by the use of space, sale of own agricultural products and providing the jobs for children so the family could stay together in future. Among the major limitations in agrotourism activities respondents cited insufficient organization of agrotourism farms, unadjusted legal regulations and insufficient help in education.

The Economic Effects Of Agro Tourism In Rural Areas:

All models of touristic development share dilemmas as to their positive and negative effects. Development of agro tourism in many destinations is viewed positively as an opportunity for local communities to invest, to increase revenues and responsibilities, to protect the environment. Agro tourism generates significant contributions to the process of rural development. Contributions may be in the form of: revenue growth, access to work, exchanges between rural and urban areas, multiplier effects on direct investment, strengthening the local structure through working groups, stimulating the

development of physical infrastructure, the diversification of economic activities, increase the value of properties in an area, creating a ready infrastructure, create opportunities for other economic developments

Conclusion:

Factors that play a key role in development of rural areas through agrotourism are the following: low farm income, development and expansion of cities, redistribution of financial resources of the urban population to agrotourism facilities (and the whole villages) and local government policy. Material resources of agrotourist farms, their promotional activities, mutual cooperation between hosts, but also a departure from passive attitude and manifestation of initiative and willingness to take risks – these are essential elements that co-create the discussed activity. Top-down solutions used at various levels of government, must respond to emerging opportunities and create incentives for addressing the obstacles encountered while starting agrotourism services.

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Human Rights of Women and Children

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Abstract:

Human beings are rational beings. They by virtue of their being human possess certain basic and inalienable rights which are commonly known as human rights. Rights are essential for the overall development of human beings including women and child. Human rights are inherent in all the individuals from his birth irrespective of their caste, creed, religion, sex or nationality. In India since ancient time especially in Aryan family the birth of a son was welcomed and women had secondary status. Early marriages have become common to get the guarantee of chaste. This tradition led towards child marriage system. A large proportion of women were widowed due to child marriages. Women were not having rights of education and right of her development to live dignified life. After the enactment of the Constitution of India women have equal right with men. The present day Constitution of India provided equality between sexes and equality before law based on Universal Declaration of Human Rights. However, even today women are not enjoying equal social statutes, rights, freedoms, liberty and security. The Constitution of India has guaranteed women equal rights without any discrimination and imposed responsibilities on the government to provide her equal status and rights. The Constitution is also imposes obligation on the government and legislature to make laws according to need and situation for the protection of women.

Keywords: Human Rights, Women, Children, Constitution, UDHR

Introduction:

The preamble of the United Nations Charter begins by referring a faith in fundamental human rights, in the dignity and worth of human person in, equal rights of men and women of nations large and small. The U.N. aspires to achieve international cooperation in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language or religion. On December 10, 1948 the General Assembly of the United Nations Declared 30 Article, which deals with the human rights of person. **Article 1** of Universal Declaration of Human Right states that all human beings are born free and equal in dignity. They are endowed the reason and conscience and should act towards one another in a spirit of brotherhood.

India's Constitution came into force on 26th January 1950. The Impact of the Universal Declaration of Human Right on the drafting of human rights chapter under the Part-III of the Indian Constitution is felt throughout. India has acceded to the Universal Declaration of Human Rights as well as two International Covenants one on Economic, Social and Cultural Rights and other on Civil and Political Rights. The Constitution of India provides a number of rights to individuals in Part III which have been termed as fundamental rights. The expression fundamental denotes that these rights are inherent in all the human beings and

are essential for the individuals for blossoming of the human personality and soul. These rights represent the basic values of a civilized society and the Constitution makers declared that they shall be given a place of pride in the Constitution and therefore they elevated them to status of fundamental rights. These rights are therefore calculated to protect the dignity of the individuals and create conditions in which every human being can develop his personality to the fullest extent.

Right under UDHR, International Covenant and Indian Constitution:

The fundamental rights guaranteed under the Indian Constitution and human rights under Universal Declaration of Human rights and under the International Covenant on Civil and Political Rights are helpful in order to make them comparable with the human rights guaranteed to the individuals. The various rights embodied in the Constitution of India show that they we are available to all the citizens of the country much before India ratified the covenant on Civil and Political Rights. Many human rights under the Universal Declaration of Human Rights are comparable with fundamental rights under the Indian Constitution. Following is the chart given in which we can compare to our Constitutional provision with provision of human rights documents.

Rights	Universal Declaration Of Human Rights	Covenant on Civil & Political Rights	Indian Constitution
Equality before the law	Article 7	Article 14(1)	Article 14
Prohibition of discrimination	Article 2	Article 26	Article 15
Right to life and liberty	Article 9	Article 6(1)&9(1)	Article 21
Freedom of speech & expression, Freedom assembly Freedom of association Freedom to move freely within the territory of a state	Article 19	Article 19 (1)& (2) Article 21 Article 22(1) Article 12(1) & e	Article 19(1)a Article 19(1)b Article 19(1)c Article 19(1)d
Prohibition of Traffic in Human Beings & forced Labour	Article 4		Article 23

The above chart shows that the various Articles under the Universal Declaration of Human Rights and International Covenants are adopted under the Constitution of India and these are equally applicable for men and women. It means that Constitution of India guaranteed its citizen for protection of their fundamental human rights.

Objectives of the Study:

1. To know and understand the Human Rights of Women and Children.
2. To know and study the Law regarding Women and Children under UDHR, International Covenant and Constitution of India.
3. To study special provisions and laws available for the protection of women and children.
4. To study the directives under the Constitution have been implemented strictly to achieve the Constitutional mandate towards women and child empowerment.

Methodology:

The present study is based on the various provision regarding human rights under the Universal Declaration, International Covenant, Constitution of India and other laws. Study is mainly based on analyzing of statutory provisions of laws which are available for the protection of human rights of women and child.

Special Rights for Women and Child Under the Constitution:

The Constitution of India is very important which provide special provision for women and children under the fundamental rights. So also Right to education and other Articles under the directive principles of state policy are significant to achieve the goal of women and child empowerment in India. Time to time various legislations has been enacted by the parliament and state legislatures to support women and child provided protections. Some legislation is also supportive to bring equality and avoid gender discrimination. All these laws shall be strictly implemented to provide protection

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to women and children. The constitution of India safeguards woman's right by putting her at par with man socially, politically and economically. The principle of the gender equality is enshrined in the constitution but gender injustice has taken place in many ways beginning from abortion of female foetus.

The Constitution of India under **Article 15(3)** has guaranteed special protection to women. Preamble, Fundamental Rights, Fundamental Duties and Directive Principles of the Constitution assured equality of status to women. The Constitution under Directive Principles state policy incorporated many directives to the state to improve the status of women and for their protection. **Article 39(a)** of the Constitution directs the State to securing that the citizen; men and women equally have the right to an adequate means of livelihood. **Article 39(d)** states to secure equal pay for equal work for both men and women. **Article 42** states that the State shall make provisions for securing just and human conditions of work and for maternity relief. The Constitution of India safeguards women's right by putting her at par with man socially, politically and economically. So also State is empowered to adopt measures of positive discrimination in favour of women.

Women's participation in political leadership:

Women's participation in political leadership is guaranteed by the constitution. The 73rd and 74th Amendments (1993) Under **Article 243-D and 243-T** of the Constitution have provided for reservation of seats in the local bodies of Panchayats and Municipalities for women, laying a strong foundation for their participation in decision making at the local levels.

Protection under Criminal Law:

(a) Pregnant woman cannot be executed with the death sentence :

According to Section 416 of Cr.P.C. if a woman sentenced to death is found to be pregnant. The High Court shall order the execution of the sentence

to be postponed and if it thinks fit may commute the sentence in life imprisonment.

- (b) **Protection in certain offence not to be punished :** Rape under section 376, unnatural offence under section 377 of IPC empowers woman. According to these sections the act of man is punishable, but similar act of woman is not punishable under Indian Penal Code.
- (c) **Protection from arresting a woman in night:** The Hon'ble Supreme Court directed the police not arrest lady without presence of a lady constable and also prohibited the arrest of lady after sunset and before sunrise..
- (d) **Equal Property Rights to Hindu Women:** Under the Hindu Succession (Amendment) Act 2005 the daughter are entitled to equal inheritance rights along with other male siblings, which was not available to them prior to amendment.
- (e) **Protection in some laws also available for women which empowers her :**

The Married Women's Property Act 1874, Child Marriage (Restraint) Acts 1929, The Immoral Traffic (Prevention) Act 1956, Probation of Offenders Act 1958, The Dowry Prohibition Act 1961, The maternity benefit Act 1961, The medical Termination of Pregnancy Act 1971, Equal Remuneration Act 1976, The Commission of Sati (Prevention) Act 1987, The Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act 1994, Domestic violence Act 2005.

The Criminal Amendment Act 2013:

The Criminal Amendment Act 2013 lays down the provisions to penalize the culprit for the heinous offences against women. Various sections under IPC specifically deal with such crimes. Acid Attack (Section 326A and 326B), Rape (Sections 375, 376, 376A, 376B, 376C, 376D, 376E), Attempt to commit rape (376/511), Kidnapping and abduction for different purposes (363-373), Cruelty by husband or his relatives (Section 498A), Outraging the modesty of women (354), Sexual harassment (354A), Assault on women with intent to disrobe a woman (354B), Voyeurism (354C), Stalking (354D), Importation of girls up to 21 years age (Section 366B), Word, gesture or act intended to insult the modesty of women (section 509).

These enactments' may be intended exclusively for women, to uplift the dignity and status of women in society and empowered her providing many rights in these enactments. Despite all these efforts to promote the welfare of women one has to admit that even now women in India are not treated with dignity. They are neither allowed, nor encouraged to enjoy their basic rights, and they are not accepted by men as equal to them. This fact can be identified through the record and data published by the National Crime Record Bureau. After the analyzing the data the fact revealed that

crime against the dignity of women are increasing day by day.

Crime against Women in India:

According to NCRB, 28,811 complaints of crimes against women received in 2023, among these over 50% from UP. The number of crimes against women grew up from 56.5% in 2020 to 64.5% in 2021 (incidents per 1 lakh population). The highest number of complaints were received in the right to dignity category that involve harassment other than domestic violence and it stood at 8540 according to NCW data

1. Domestic violence complaints 6274,
2. Dowry harassment complaints 4794,
3. Molestation complaints 2349,
4. Police apathy against women complaints 1618,
5. Rape and attempt to rape 1537,
6. Sexual Harassment 805,
7. Stalking 472,
8. Honour crimes 409.

The report of NCRB states Assam has the highest rate of crime against women in 2021. However UP is at the top of the list in terms of actual number of cases filed in 2021, followed by Rajasthan, Maharashtra, West Bengal and Odisha. With 16.4% Rajasthan has the highest rate of rape in 2021. In 2022, National Commission for women (NCW) received 30,957 complaints of crime committed against women. In 2021 the NCW had received 30864 complaints while the number of complaints slightly increased in 2022. Out of 30,957 complaints 9,710 were related to the right to live with dignity that takes into account the emotional abuse of women, followed by domestic violence 6970 and dowry harassment at 4600. About 54.5 % (16872) of the complaints were received from the Uttar Pradesh.

Constitution and State Responsibility:

The Part IV of the Constitution of India provides directives to state policy. It is duty of the state authorities to work according to directives to protect the rights of people. The Part-III provides Fundamental rights to person. These fundamental rights are human rights for men and women and can be protected through the strict implementation of the part-III of the constitution of India.

Conclusion:

Protection of human rights of Women and children and their empowerment is possible if we removed sprawling inequalities persist in their access to education, health care, physical and financial resources and opportunities in the political, economical social and cultural sphere. The Constitution of India has guaranteed equal status to women with men. Women have full right of her overall development. With the help of law women can prevent discrimination and achieved required goal. Constitutional Mandates and laws are pre-requisites to achieve goal of women empowerment.

Strict implementations of directives under Part IV of the Constitution are only the option to protect Part-III Fundamental Right i.e. human rights of every person including women and children.

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The Role of Intellectual Property Rights in Economic Development

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Abstract:

This article explores the crucial role of Intellectual Property Rights (IPR) in economic development, with a focus on India's efforts to establish a robust framework for protecting intellectual creations. It delves into the various types of intellectual property rights, such as patents, trademarks, copyrights, trade secrets, and geographical indications, elucidating their significance in fostering innovation. The scope and necessity of IPR for a country's growth are discussed, emphasizing the positive impact on GDP, human capital development, and technological advancements. The article also examines the intricate relationship between IPR and economic development, drawing distinctions between high-income, upper-middle-income, lower-middle-income, and low-income countries. It highlights the need for effective IPR laws and enforcement mechanisms to strike a balance that encourages innovation without fostering monopolies. The positive impact of property rights on India's economy is examined, emphasizing the nation's potential as a global leader in innovation. The conclusion underscores the pivotal role of IPR in incentivizing creators, fostering economic growth, and contributing to sustainable development.

Introduction:

Intellectual Property refers to the creations of the human mind and intellect. Nowadays, the rights associated with intellectual property are becoming increasingly significant and valuable. In India, the government has established well-organized administrative services and judicial frameworks for IP rights. These rights play a crucial role in the growth of a country. The laws governing intellectual property differ from country to country. In many developed countries, the successful planning and strict enforcement of IP rights has contributed to their economic growth. IPR promotes innovation, which leads to economic growth. Nowadays, innovation has become the primary activity of every business. Countries are promoting their businesses by giving importance to IP laws. IP confers a limited right on the creator/producer or their administrator to use their creation for a limited time frame. Therefore, for a country's development, Intellectual Property Rights are critical.

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Intellectual Property Rights:

Intellectual property refers to any creation that is beneficial for society and economically valuable for its creator. The rights granted to creators to safeguard their intellectual property are known as intellectual property rights. These rights are provided by legal processes within each country, subject to certain time periods and conditions. There are different types of intellectual property rights such as patents, trademarks, copyrights, and trade secrets.

Copyrights:

Copyright rights are granted to creators for their works in the fields of literature, art, and education. These works may include books, movies, musical compositions, and more. In India, these rights last for the entire lifespan of the creator and for an additional 60 years after their death. During this time, their work cannot be used without their permission. Once this period ends, the rights

become public. It's important to note that copyright only protects the expression of an intellectual creation, not the ideas or methods presented in the work. This applies to literary, artistic, and scientific works.

Trademark:

A trademark is the name, logo, or slogan of a service organization or product that is protected by law to maintain its distinct identity. For instance, any product or name of a company is safeguarded under trademark laws, and cannot be used by any other individual or organization.

Trade Secret:

During the production of a product, certain properties may be developed that are crucial for its success. If these properties are a result of mixing a substance in a specific way, then the substance and production process are considered trade secrets. Additionally, industrial design protects the appearance and composition of a product, such as its size and colour. For instance, Apple's iPhone home button design is protected by this right, which means that no other smartphone company can use the same design.

Patent:

A patent is a right granted for an industrially significant invention that is given in any country with a fixed time limit and conditions. The creator of the invention has exclusive rights to its use for the duration of the patent, and no one else can use it without their permission. In India, the term of a patent is typically 20 years, after which the invention becomes public. To be eligible for patent protection, inventions must be new, non-obvious, and have commercial potential. The patent system is one of the oldest forms of intellectual property rights protection.

Geographical Indication:

Geographical indication is given to natural or man-made products that hold significance due to a specific geographical location or traditional process. This tag protects and increases the economic importance of the product. In India, the Indian Geographical Indications of Goods Act, of 1999 governs this system. Some examples of products with this tag are Darjeeling tea, black rice from Manipur, choli oil from Himachal Pradesh, and black cumin and Kashmiri saffron.

Scope and Need of Intellectual Property:

Intellectual property rights are crucial for a country's overall growth and vary across nations. Successful planning and strict enforcement of intellectual property laws contribute significantly to the economic growth of many developed countries. Intellectual property rights promote innovation which leads to economic growth. Protecting people's rights fosters innovation, which is directly linked to a country's development and growth. Developing economies like India must focus on raising

productivity in their markets. Innovation requires significant investment, but it plays a crucial role in investment. Developed countries such as the USA, Japan, and China have experienced a five-fold increase in development rates after implementing intellectual property laws.

Role of Intellectual Property Rights in Economic Development:

Intellectual Property Rights (IPR) have a significant impact on the process of monetary improvement, and their development is entangled with various factors. The primary objective of IPR is to encourage right holders to bring their innovations and ideas to the market, thereby promoting the widespread circulation of the latest technology for the betterment of the economy. The effectiveness of IPR on economic development in different countries depends on various stages of development, such as GDP growth, human capital development, imitative activities, technological development, and so on.

In general, innovations are mostly produced in high-income countries due to different R&D activities, and the protection of IPR further encourages innovations by enabling inventors to earn handsome returns from their inventions. In all middle-income countries, property rights positively affect economic development, but this effect is less than that of high-income countries, as the level of protection of IPR in these countries is relatively poor. Furthermore, each middle-income country is unique in terms of its economic structure, with divergent IPR. Therefore, middle-income countries can be divided into two categories, i.e., upper-middle-income countries and lower-middle-income countries.

In upper-middle-income countries, IPRs are presumed to have a positive impact on economic development. On the other hand, in lower-middle-income countries, IPRs have only a moderate effect on economic growth due to poor protection of property rights. In low-income countries, this effect further weakens, and the level of protection of IPR is even worse.

Relation between IPRs and the Economy:

It is important to use new innovations and ideas to keep the cost of a product low. Updating technology and innovation is vital. Strict IPR laws that protect the interest of the people are necessary as they discourage others from exploiting the same. However, it is not enough to just have a good law. The enforcement of that law is equally important. If there are loopholes or weak laws, they can be exploited and result in less innovation.

IPR provides exclusive rights to the owner or creator of the property, which includes the right to decide on a fair value and sell them to anyone. A healthy return to developers will encourage them to create new innovations and promote innovation. However, the owner can also exploit this right and

charge more than the monetary value, creating a monopoly in the market.

Positive Impact of Property Rights in the Economy:

India possesses an immense potential to become a global leader in innovation and productivity. However, to reach this pinnacle, it is of utmost importance to invest in intellectual property laws that safeguard the rights of producers and consumers alike. India's adoption of the Trade-Related Intellectual Property Rights (TRIPS) agreement has led to a significant upsurge in patent filings, which has resulted in increased innovation and private-sector investment in research and development. This favourable trend presents a remarkable opportunity for India to continue to flourish and make significant contributions to the worldwide economy.

Conclusion:

Intellectual Property Rights (IPR) play a significant role in economic development by fostering an environment that incentivizes creators and innovators to bring their ideas to the market. IPR protection, including patents, trademarks, copyrights, and trade secrets, encourages investment in research and development, leading to economic growth through the introduction of new technologies, products, and services. Developing countries like India can benefit from a strategic emphasis on IPR laws that can unlock innovation and productivity opportunities. However, it's essential to strike a balance in IPR laws that provide adequate protection and prevent the abuse of exclusive rights that may lead to monopolies. Effective enforcement mechanisms are crucial to maintaining the integrity of the IPR system. Ultimately, IPR stands as a pillars supporting creativity, entrepreneurship, and sustainable development, benefiting societies and economies alike.

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Role of Ipr in Attracting Investment and Financing

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Abstract:

IPR (Intellectual Property Rights) are the core mechanisms in every economy, they help in revenue generation, boosting employment, especially investments & financing and all of these cumulatively lead to economic growth. IPR will also lead to migration of technology from various corners of the world through patents & copyrights this will also lead to more penetrating opportunities for investment and financing. IPR also act as a catalyst for entrepreneurship. Venture capitalists, angel investors seek and acquire strong portfolios into their platter for revenue generation which include investment & financing opportunities. IPR are essential for encouraging innovation and investor-innovator partnership. Innovators can safeguard their inventions with tools like patents and copyrights, which encourages cooperation with investors in the commercialization and monetization of intellectual property. Through licencing agreements, inventors can profit from their intellectual property and draw funding and investment for additional research and development projects. This paper dives into the depth of the various roles that IPR execute for investment & financing opportunities. Data collection is done from primary and secondary sources to know the importance of IPR in sources of investment opportunities.

Keywords: Finance, Angel investors, Investments, Intellectual Property Rights, Investor-innovator partnership.

Introduction:

Intellectual Property Rights (IPR) envelop an assorted cluster of legitimate assurances allowed to makers and trend-setters to protect their intangible resources. These securities play a crucial part in cultivating development, inventiveness, and financial development. There are a few sorts of IPR, each planned to address particular shapes of mental property: Patents: Licenses give innovators with elite rights to their innovations for a restricted period, ordinarily 20 a long time from the recording date. They cover unused and valuable forms, machines, compositions of matter, or advancements thereof. Licenses empower development by giving innovators a imposing business model over their developments, subsequently empowering them to recover ventures in inquire about and advancement and anticipating others from abusing their manifestations without permission. Copyrights: Copyrights ensure unique works of creation settled in a substantial medium of expression, such as scholarly, creative, melodic, or emotional works. They allow makers elite rights to duplicate, convey, perform, show, and make subordinate works based on their manifestations. Copyrights incentivize creative and scholarly expression by giving makers with the implies to control the utilize and dissemination of their works, guaranteeing reasonable recompense for their efforts. Trademarks: Trademarks are particular signs, images, or logos utilized to recognize the

merchandise or administrations of one substance from those of others in the commercial centre. They serve as profitable resources for businesses, making a difference buyers distinguish and separate items or administrations and building brand acknowledgment and dependability. Trademarks can be enlisted with administrative specialists to get select rights to their utilize in association with particular products or administrations, upgrading their legitimate assurance and commercial value. Trade Insider facts: Exchange privileged insights include secret data, such as equations, forms, plans, or client records, that give businesses with a competitive advantage.

Objective of the Study

- To study the scope of investment & financing through IPR.
- To study the importance of various types of IPR that lead to investment opportunities.

Research Methodology

Sources of Data:

The data has been collected from 2 main sources:

Primary source: The primary data is collected from accountants, entrepreneurs, faculty and students.

Secondary source: The Secondary data has been obtained from blogs, internet websites, articles and research journals, college magazines.

Sample Size: The data was collected from 30 respondents who included employees, students, teachers, financial advisors etc.

Analysis & Discussion**Objective 1: To Study The Scope Of Investment & Financing Through Ipr.**

1. How important are Intellectual Property Rights (IPR) in attracting investment and financing for businesses.

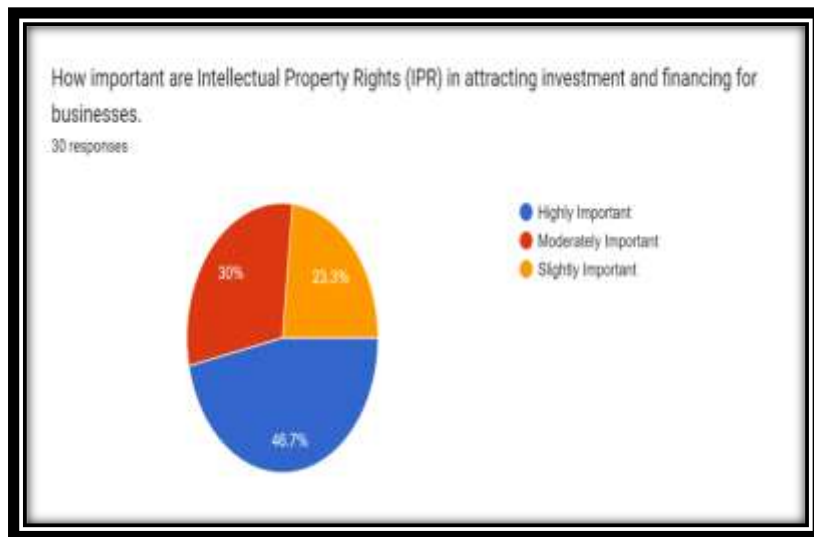


Figure 1: Importance of IPR in attracting investment & financing.

Interpretation:

From the above chart it can be inferred that most of the respondents Express that intellectual property rights are very much important when it comes to attracting investment and financing opportunities in business. 46.7 % of the respondents have responded that IPR are highly important for attracting investment and financing opportunities, whereas 23.3 % of the respondents have responded that intellectual property rights do not play a major role in attracting financing opportunities for various businesses. IPR play a major role in attracting

investment and financing opportunities because they possess individuality in the economy and such uniqueness will lead to Higher investment opportunities in various sources pertaining to the intellectual property assets. in one or the other way they lead to increase in revenue and also create a hierarchy of economic growth from small scale sectors to large scale sectors.

2. What factors make intellectual property assets attractive to investors and financiers?

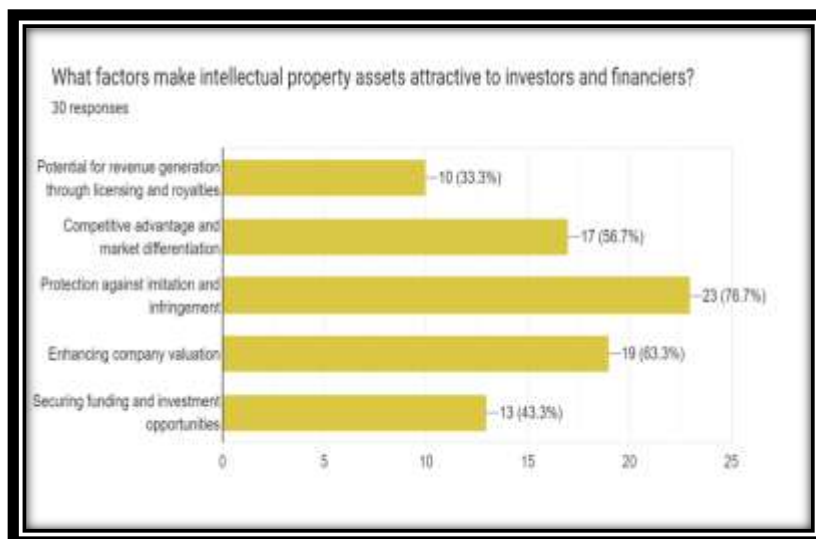


Figure 2: Factors involved in making IPR attractive for investment.

Interpretation:

From the above graph it can be inferred that most of the respondents expressed that protection

against imitation and infringement is the most common important factor that makes intellectual property assets to attract investors & financiers 76%

of the respondents strongly support the abovementioned statement. whereas 63% of the respondents believe that increase in the company's valuation will attract investors and financiers in intellectual property assets, whereas the least responses that is 33% have stated that revenue generation through licensing and royalties is also a supporting factor to attract investors and financiers in intellectual property assets. intellectual property rights have mainly three components' patents copyrights and trademarks each of these

components has its own uniqueness and the do not need infringements which leads to single competitor for particular aspect an ultimately it may also lead to formation of a Monopoly in the market.

Objective 2: To Study The Importance Of Various Types Of Ipr That Lead To Investment Opportunities.

1. What types of intellectual property assets do you consider most valuable when evaluating investment opportunities?

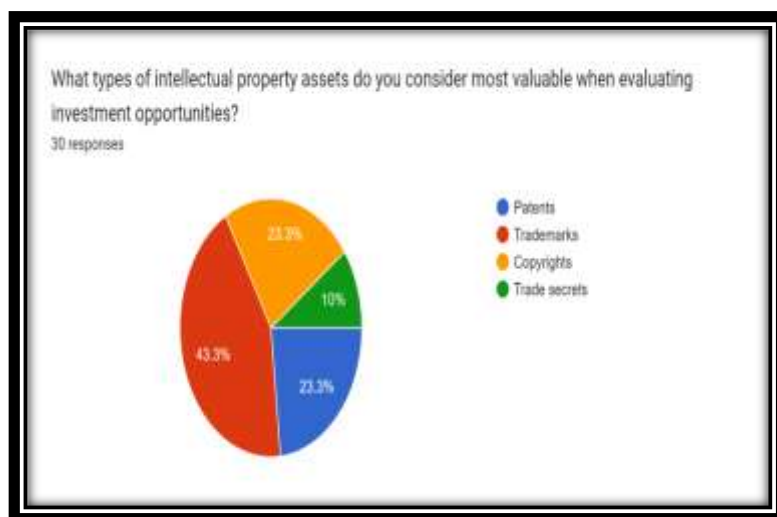


Figure-3: Valuable IPR assets for Investing.

Interpretation:

From the above chart it can be interpreted that 43% of the respondents believe that trademarks important components of intellectual property rights which are considered more valuable well analysing the investment opportunities. There are various stocks related to trademarks i.e.; Coca-Cola, proctor and gamble, Amazon, Apple etc. which are the market rulers in their respective sectors. around 23% of the respondents have stated that patents and copyrights also most valuable while choosing a better portfolio for investment. there are various patent related stocks like Google, Microsoft, Novartis, Lockheed Martin (LMT) etc. which are a good option for revenue generation and also there are various copyright related sources of investment like Warner Bros, Has bro, Netflix, Walt Disney etc. are a good source of investment. whereas only 10% of the respondent's state that trade secrets also play a supporting role in evaluating investment opportunities.

Conclusion:

In the end we can conclude that intellectual property rights play a very supportive and major role for investment and financing opportunities various businesses in most parts of the world especially in India we can see various geographical designs being introduced in various other states which are also a part of intellectual property rights

such components graphical designs will help the small scale industries give more popularity and there can be more small scale companies taking over the market in the coming years and this will totally change the face of the small scale companies in the Indian market an economy. By clubbing all the points, we can state that there is a need to protect all the IPR components in order to enhance more growth in the respective economies.

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बौद्धिक संपदा अधिकार

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उद्देशः

प्रस्तुत लेखाचा उद्देश बौद्धिक संपदेच्या अधिकारावर प्रकाश टाकणे आणि या विषयावर आवश्यक माहिती प्रदान करणे हा आहे. सर्वप्रथम बौद्धिक संपदेच्या अधिकारांची व्याख्या करण्याचा प्रयत्न केला. आणि आजच्या समाजात बौद्धिक संपदा आणि बौद्धिक संपदा हक्कांची गरज समजून घेण्याचा प्रयत्न केला. बौद्धिक संपदा अधिकारांतर्गत संसदेत पारित केलेल्या विविध कायद्याची यादी तसेच वेगवेगळी माहिती दिली. तसेच आंतरराष्ट्रीय बौद्धिक संपदेचे तपशील सादर केले. त्यानंतर कॉपीराइट, पेटंट किंवा ट्रेडमार्कवर शक्य तितकी माहिती सादर केली.

किर्वाड : पेटंट, व्यापार चिन्हे, कॉपीराइट, औद्योगिक संकल्पचित्रे, लेखाधिकार.

प्रस्तावना :

प्राचीन काळापासून, निसर्ग समजून घेऊन आणि त्यातून काहीतरी नवीन शोधण्याची प्रवृत्ती मानवाची आहे. प्राचीन काळी आदिमानव निसर्गाच्या मुलभूत सविधांचा वापर करून जगत असत, तर आजच्या युगात मानवाने विविध आविष्कारांच्या माध्यमातून समाजासाठी सर्व प्रकारच्या सुविधा मिळवून दिल्या आहेत. हे सर्व आविष्कार आणि यश एखाद्या विशिष्ट व्यक्तीच्या प्रयत्नांचे किंवा लोकांच्या विशिष्ट गटाच्या सामूहिक प्रयत्नांचे परिणाम आहेत. यामुळे समाजाचे जीवन अधिकाधिक सुखी झाले आहे. वीजेचा शोध, वाफेच्या रेल्वे, इंजिनाचा शोध यावरून अनेक उपकरणे मानवाने निर्माण केली. या उपकरणांचा वापर करून मानवाचे राहणीमान सुधारले, जीवन सुखी व संपन्न होण्यास मदत झाली. त्यामुळे सतत शोध लागत राहणे हे मानवाच्या व अर्थव्यवस्थांच्या विकासासाठी आवश्यक आहे. शोध लावण्यासाठी बौद्धिक संपदा हवी असते पण ती सर्वांकडे असतेच असे नाही. आणि ज्यांच्याकडे असते त्यांनी त्यांचा योग्य उपयोग करावा, शोध लावावे अशा करिता शोधकार्याला त्यापासून काही आर्थिक लाभ मिळणे आवश्यक ठरते, किंवा लाभमिळण्याची हमी असायला हवी यासाठी कायद्याने शोधकर्त्याला अधिकार असले पाहिजेत या अनुषंगानेच कायद्याने त्याने लावलेल्या शाखासाठी शोधकर्त्यास दिलेल्या अधिकारास बौद्धिक संपदा अधिकार असे म्हटले आहे. आणि हे अधिकार कायद्याने दिलेले आहेत.

बौद्धिक संपदा अधिकार हा एक असा अधिकार आहे जो वस्तु किंवा कल्पनेच्या निर्मितीचे संपूर्ण श्रेय एखाद्या वस्तु किंवा कल्पनेच्या निर्मात्याला देतो. सामाजिक दृष्टीकोनातून, बौद्धिक मालमत्तेचा अधिकार एखाद्या निर्मात्याच्या वैयक्तिक हितसंबंधाचे अशा प्रकारे संरक्षण करतो की निर्मात्याने तयार केलेल्या वस्तुंशी संबंधित माहिती आणि त्या वस्तुचा भिन्न वापर यामधील अधिकार वेगळे ठेवून समाजातील लोकनिर्मात्याला त्याच्या हक्कांचे रक्षण करावे लागते. कोणतीही माहिती उत्पादकाने ती माहिती तयार केल्या नंतर, ती माहिती वेगवेगळ्या वापरकर्त्यांद्वारे वेगवेगळ्या वेळी आपापसात सामायिक, करून वापरली जाते. अशा या परिस्थितीत,

विविध बौद्धिक संपदा अधिकारांद्वारे, हे सुनिश्चित केले जाते की उक्त माहितीचा निर्माता उत्पादक म्हणून त्यांच्या क्षमतेनुसार प्राप्त केलेल्या अधिकारापासून कोणत्याही प्रकारे वंचित राहणार नाही आणि वापरकर्ते आणि वापरकर्त्यांमधील अधिकारांमध्ये स्पष्ट फरक राहील. निर्माता आज आपल्या समाजात विविध सुविधा आणि उत्पादनांच्या निर्मितीमध्ये सखोल विचार आणि गंभीर संशोधन प्रयत्नांचा सामावेश आहे. या प्रयत्नांच्या परिणामी मिळालेले परिणाम किंवा उत्पादने इतर लोक वेगवेगळ्या प्रकारे वापरतात. आणि काहीवेळी हे इतर त्या उत्पादनांचे नवीन रूपांत रूपांतर करतात. यासाठी श्रेय घेण्याचा प्रयत्न करा. तू स्वतः अशाप्रकारे, एका व्यक्तीने / शोधकाने मूळतः विकसित केलेल्या किंवा उत्पादित केलेल्या उत्पादनाचे व्यावसायिक आणि आर्थिक लाभ शोधकर्त्याला क्रेडीट न देता दुसऱ्या व्यक्तीकडून घेता येतात. बौद्धिक संपदा हक्क शोधकर्त्याच्या त्यांच्या हक्काचे समान कृत्यांपासून संरक्षण करतात आणि शोधकर्त्याला त्यांचा शोधाचे श्रेय देण्याबरोबरच त्यांच्या आर्थिक आणि व्यावसायिक अधिकारांचेही संरक्षण करतात. एखाद्या व्यक्तीला किंवा व्यक्तीना त्यांच्या मनाने (मानसिक प्रयत्नांद्वारे) सर्जनशील शोधाच्या आधारावर प्रदान केलेल्या अधिकारांना बौद्धिक संपदा अधिकार म्हणतात. बौद्धिक मालमत्तेमध्ये मनाच्या विविध सर्जनशील प्रयत्नांद्वारे केलेले शोध साहित्यिक आणि कलात्मक कार्य आणि व्यवसायात वापरलेली नावे, चित्रे आणि डिझाइन, यांचा समावेश होतो.

बौद्धिक संपदा अधिकार हा अधिकार केवळ एकाच देशाच्या सीमेपुरता मर्यादीत न राहता त्यांना जागतिक मान्यता देण्याची प्रक्रिया सुरू झाली. त्यामुळे या अधिकार पासून होणारा आर्थिक लाभ हा जागतिक पातळीपर्यंत पोहोचला. व्यक्ती, समाज आणि शासन या तीनही पण पातळ्यांवर बौद्धिक संपदा अधिकाराचे फायदे लक्षात आले. गुंतवणूकीसाठी परंपरागत मालमत्तेबरोबरच गुंतवणूकदारांत बौद्धिक संपदा अधिकार हे नवीन दालन आकर्षित करू लागले.

बौद्धिक संपदा संघटना ही संयुक्त शब्दांच्या सर्वात जुन्या संस्थांपैकी एक आहे. १९६७ मध्ये सर्जनशील क्रियाकलापांना

प्रोत्साहन देण्यासाठी आणि जगात बौद्धीक संपदा संरक्षणास प्रोत्साहन देण्यासाठी याची स्थापना करण्यात आली. संघटनेचे कामकाज २६ एप्रिल १९७० रोजी सुरू झाले. आणि त्याचे मुख्यालय हे जिनिव्हा, स्वित्झर्लंड येथे आहे. आणि दरवर्षी २६ एप्रिल रोजी जागतिक बौद्धीक संपदा दिन साजरा केला जातो. सन २००० साली जागतिक बौद्धीक संपदा संघटना (WTO) या संस्थेनी बौद्धीक संपदा दिनाची सुरुवात केली. आणि युनायटेड नेशन्सचे सर्व सदस्य राष्ट्र त्यांचे सदस्य होऊ शकतात. पण ते बंधनकारक नाही आहे. संध्या १९३ देश हे या संघटनेचे सदस्य आहेत. आणि भारत हा या संघटनेचा सदस्य १९७५ ला झाला. बौद्धीक संपदा अधिकार केवळ एका देशाच्या सीमेपुरताच मर्यादीत न राहता त्यांना जागतिक मान्यता देण्याची प्रक्रिया सुरू झाली. त्यामुळे या अधिकारांपासून होत असलेला आर्थिक लाभ जागतिक पातळीपर्यंत पोहचला. आणि विकसित देशांच्या लवकर लक्षात आले. आणि त्या देशांनी आपापल्या देशांत त्यानुसार कायदांची रचना केली. आणि विकसनशील देशांत त्याचा लाभ समजण्यास थोडा अवधी लागला. परंतु जागतिक व्यापार संघटनेच्या (WTO) ट्रिप्स (TRIPS) Trade Related Aspects of Intellectual Property Rights करारानंतर १९९५ साली बौद्धीक संपदा अधिकारांकडे विकसनशील देशही सजगतेकडे पाहू लागले. कराराची पूर्तता करण्यासाठी का होईना विकसनशील देशांनी आपल्या बौद्धीक संपदाविषयक कायद्यात बदल दुरूस्त्या केल्या.

बौद्धिक संपदा अर्थ आणि व्याख्या :-

शोध घेण्याची व शोध लावण्याची क्षमता विशिष्ट आहे. तीच त्याची बौद्धीक संपदा आहे. एखादी संकल्पना, भावना किंवा कृती सादर करण्याची, व्यक्त करण्याची व साठवून, ठेवण्याची अभिनव पद्धत आणि त्यातील कसब म्हणजे बौद्धीक संपदा होय. मानवी मनाच्या व बुद्धीच्या मदतीने निर्माण झालेली मालमत्ता म्हणजेच बौद्धीक संपदा होय. तिचा अविष्कार, औद्योगिक क्षेत्रात विज्ञान क्षेत्रात साहित्य आणि कलेच्या क्षेत्रात होतो. मानवाचे मन आणि बुद्धी यातून निर्माण झालेल्या बाबीविषयी कायदेशीर विचार करणे. बौद्धीक संपदेत अभिप्रेत आहे. जागतिक बौद्धीक संपदा संगठन यांनी बौद्धीक संपदेची व्याख्या फारच व्यापक केली आहे. बौद्धीक संपदेत खालील बाबी विषयीच्या अधिकारांचा समावेश होतो.

१ साहित्यिक, कलात्मक आणि वैज्ञानिक कार्य

२ कलाकाराची कामगिरी

३ मानवी प्रयत्नांच्या विविध क्षेत्रात केलेले अविष्कार

४ शास्त्रीय शोध

५ औद्योगिक डिझाइन/नकाशे

६ व्यापार चिन्हे, सेवाचिन्हे

७ अयोग्य/ अन्याय स्पर्धेपासून संरक्षण बौद्धीक संपदा हक्क जे कोणत्याही अविष्कार आणि सर्वजनशील क्रियाकलापांच्या आधारावर दिले जातात. यात पेटंट, औद्योगिक डिझाइन, कॉपीराइट, वनस्पती प्रजनन अधिकार, इ. समावेश आहे.

भारतातील बौद्धीक संपदा आधारित कायदे

भारत सरकारच्या विविध विभागानी वेळोवेळी बौद्धीक संपदेवर आधारित विविध कायदे अंमलात आणले आहेत. त्यापैकी काही प्रमुख कायदे पुढीलप्रमाणे आहेत.

१ कॉपीराइट कायदा, १९५७

२ पेटंट कायदा, १९७०, (१९९९ मध्ये संशोधन)

३ ट्रेड मार्क ॲक्ट, १९९९

४ जिऑग्राफिकल इंडिकेशन्स गुड्स कायदा, १९९९

५ डिझाईन्स कायदा, २०००

६ प्रोटेक्शन ऑफ प्लॉट व्हायटीज ॲन्ड फारमर्स राइट्स कायदा २००१

पेटंट (Patents) :- पेटंट हा शोधकर्ता आणि राज्य यांच्यातील एक करार आहे ज्यामध्ये शोधक किंवा अर्जदाराला त्याच्या शोधाशी संबंधित संपूर्ण तपशिर सादर करण्याच्या बदल्यात विशिष्ट कालावधीसाठी राज्याकडून मक्तेदारी मिळते. पेटंट ही प्रणाली निश्चित करण्याचा मुख्य उद्देश म्हणजे विविध प्रकारच्या नवीन शोधांशी संबंधित विविध माहितीचा विविध तांत्रिक, आर्थिक आणि विकास हेतूसाठी सार्वजनिक वापरास प्रोत्साह देणे आणि गुप्तता दुरु करण्याचा प्रयत्न करणे. तसेच पेटंट हा बौद्धीक संपदा अधिकारांपैकी एक महत्त्वाचा अधिकार आहे. आणि पेटंट मिळण्यासाठी खालील प्रक्रिया पूर्ण करावी लागते.

१ पेटंट मिळवण्यासाठी अर्ज सादर करणे.

२ नंतर संबंधित कार्यालय या अर्जाची छाननी करते व पेटंट पारिक्षकाकडे हा अहवाल पाठविला जातो.

३ अहवालानंतर तपासणीअंती परिक्षक हा अर्ज पेटंट नियंत्रकाकडे पाठवितो.

४ पेटंट नियंत्रक संबंधित पेटंट शासकीय राजपत्रातून प्रसिद्ध केला जातो.

५ पेटंटच्या दाव्यास हरकतीसाठी चार माहिण्याचा कालावधी दिला जातो.

६ आणि नंतर शोधकर्त्याचे नाव पेटंट नोदवहीत दाखल करण्यात येते.

पेटंट चा कालावधी :- साधारणपणे, राज्याने दिलेल्या पेटंट ची कालमर्यादा, २० वर्षे असते. ज्या शोधाचे सार हे अन्नपदार्थ, औषध किंवा औषधी द्रव्य म्हणून वापरता येणारे असेल अशाच शोधाचे पेटंट हे प्रदान केल्यापासून ५ वर्षे किंवा पेटंटचा अर्ज केल्यापासून ७ वर्षे इतक्या काळासाठी लागू असतो.

लेखाधिकार (Copyrights): आपली लेखनकृती किंवा कलाकृती सुरक्षित राखण्याच्या दृष्टीने संबंधित लेखकाला किंवा कलावंताला कायदयाने प्राप्त झालेला हक्क म्हणजेच कॉपीराइट होय. सामान्यपणे वाङ्मयीत किंवा कलात्मक निर्मितीची प्रसिद्धी, प्रकाशन, प्रतिलिपी, त्याच प्रमाणे विक्री इत्यादीबाबत विशिष्ट काळापुरता लेखाधिकाराचा हक्क कायदयाने निर्मात्याला दिलेला असतो. बहुतेक सर्व देशात लेखाधिकारविषयक अधिनियम केलेले आढळतात. लेखक व कलावंत यांना आपल्या निर्मिती पोठी मानधन किंवा मोबदला मिळत असतो. आपल्या निर्मितीचा उपयोग म्हणजे आपल्या लेखाधिकाराचे हस्तांतरण ही त्याच कायदयातील तरतुदी नुसार करता येतो. यात काव्य, कथा, कादंबऱ्या, नाटके, इतर साहित्य, सिनेमा नृत्य, संगीत, गायन, ध्वनिमूद्रन अशा प्रकारे अनेक गोष्टीचा समावेश यात होतो आणि प्रकाशित पुस्तकावर १ असे चिन्ह असते. आणि हेच चिन्ह कॉपीराइटचा अधिकार दर्शविते. आणि हा अधिकार ज्या व्यक्तिकडे आहे त्याच्या परवानगी शिवाय या साहित्याचा उपयोग करता येत नाही. कॉपीराइटचा कालावधी हा ६० वर्षे आहे.

व्यापारचिन्हे (Trademark) : आपण जी काही वस्तू किंवा सेवा विकतो त्यावर आपले किंवा आपल्या संस्थेचे नाव आणि चिन्ह

असते. या ठराविक नावाला आणि चिन्हाला व्यापार चिन्ह म्हणतात. सामान्य मानसाच्या भाषेत, ट्रेडमार्कला ब्रॅड किंवा ब्रॅड नाव देखील म्हणतात. हे एक चिन्ह आहे, जे स्वाक्षरी, नाव, डिझाईस, लेबल, संख्या किंवा रंगाचा समूह असू शकते. एखादया व्यावसायिक आस्थापनेद्वारे किंवा संस्थेद्वारे त्यांच्या व्यावसायिक उत्पादनांना किंवा सेवांना एक वेगळी ओळख देण्यासाठी त्याचा वापर केला जातो. ट्रेडमार्क मध्ये प्रामुख्याने दोन वैशिष्ट्ये असावीत, पहिली म्हणजे ती विशिष्ट असावी आणि दुसरी म्हणजे ती वाणिज्यमध्ये वापरली जावी, ज्या व्यापार नावाची आणि व्यापार चिन्हांची नोंदणी केली जाते त्यावर आपला कायदेशीर हक्क निर्माण होतो. नोंदणी केल्यामुळे कोणीही दुसरा मानुस त्याच नावाने किंवा चिन्हाने त्याच वस्तु किंवा सेवा त्याच्या नावाने विकू शकत नाही. तसे केल्यास त्याच्यावर आपण कायदेशीर कारवाई करू शकतो.

गुप्त माहितीचे संरक्षण (Trade Secrets): ट्रेड सिक्रेट्स हे बौद्धिक संपदा हक्क आहेत जे कंपनीच्या गोपनीय माहितीवर आधारित आहेत जे लोकांसमोर अघड केले जाऊ नयेत. काही वस्तु किंवा पदार्थ तयार करीत असतांना अशी काही प्रक्रिया किंवा सूत्र वापरले जाते की, तो वस्तु किंवा पदार्थ तशाच इतर वस्तु किंवा पदार्थांपेक्षा दर्जने, रूपाने, रंगाने, चवीने, वजनाने वेगळा होतो. म्हणूनच त्या प्रक्रिया किंवा सूत्राला ट्रेड सिक्रेट असे म्हणतात. उदा. केएफसी रेसीपी, कोका-कोला रेसीपी ग्राहकांची यादी उद्योगाची आर्थिक स्थिती कामगारांचे रेकॉर्ड, हिशाबाची माहिती पुरवठादारांची यादी, इ. प्रकारच्या अघोषित माहितीला संरक्षण अधिकार दिले जातात जे एकतर परवाना देऊन विकले जाऊ शकतात. हे व्यापार गुपीत ही कंपनीची एक प्रकारची प्रक्रिया किंवा सराव आहे जी सामान्यतः कंपनीबाहेर ओळखली जात नाही आणि इतर कंपन्यांना बाजार पेठेत स्पर्धात्मक फायदा मिळवून देण्यासाठी आणि त्यांच्या संशोधन आणि विकासाला चालना देण्यासाठी गुप्त ठेवली जाते.

भौगोलिक विशेषतादर्शक चिन्ह (Geographical indications): भौगोलिक संकेत हे एक चिन्ह आहे ज्याद्वारे वस्तुचे विशेष गुण, स्वभाव किंवा ओळख त्यांच्या मूळ स्थानावरून ओळखली जाते. जिओग्राफिकल इंडिकेशन (GI) म्हणजे एखादया विशिष्ट प्रदेशाद्वारे उत्पादित आणि प्रदान केलेल्या विशिष्ट वस्तु किंवा सेवेबद्दलची माहिती हा एक शब्द असू शकतो, जसे की दार्जिलिंग किंवा चिन्ह, जसे की ही बोड ऑफ इंडियाचा लोगो. किंवा दोन्ही द्वारे दर्शविले जाते. नाव भौगोलिक असेलच असे नाही. अल्फोझो हे महाराष्ट्रातील रत्नागिरी जिल्ह्यात उत्पादित होणऱ्या आंब्याच्या विशेष जातीचे अभौगोलिक नाव आहे. जसे की, काही उत्पादने ज्या भौगोलिक प्रदेशात तयार होतात त्यांना त्या भौगोलिक प्रदेशाच्या नावाने उक वेगळी ओळख मिळते. उदा. पैढणी साठी काश्मीरी केसर, म्हैसूर सिल्क, पुणेरी पगंडी, कोल्हापूरी चप्पल, इ.

रोपांच्या नवीन जाती/ नमुन्यांना संरक्षण

(Protection of New varieties of plants):- वनस्पतींच्या वाणांचे संरक्षण, शेतकरी आणि वनस्पती प्रजनन करणाऱ्यांचे हक्क आणि वनस्पतींच्या नवीन जातींच्या विकासास प्रोत्साहन देण्यासाठी प्रभावी प्रणालीची स्थापना करण्यासाठी शेतकऱ्यांच्या हक्कांची ओळख करून त्यांचे संरक्षण करणे आवश्यक मानले गेले आहे. नवीन वनस्पती वाणांच्या विकासासाठी वनस्पतीचे संवर्धन, सुधारणा आणि आनुवंशिक संसाधने उपलब्ध करून देण्यात त्यांच्या योगदानाच्या संदर्भात भारत सरकारने सुई जेनेरिस प्रणालीचा अवलंब

करून वनस्पती जाती आणि शेतकरी हक्कांचे संरक्षण २००१ कायदा लागू केला. भारतीय कायदा केवळ इंटरनॅशनल युनियन फार द प्रोटेक्शन ऑफ न्यू व्हायटीन ऑफ प्लांट्स (UPOV), १९७८ च्या अनुरूप नाहीतर सार्वजनिक क्षेत्रातील प्रजनन संस्था आणि शेतकऱ्यांच्या हिताचे संरक्षण करण्यासाठी पुरेश्या तरतुदी देखील आहेत हा अधिकार प्राप्त करण्यासाठी नोंदणी केल्यापासून रोपांच्या नवीन जातीचे / नमुन्याचे प्रमाणपत्र झाडे व वेलींना ९ वर्षे व इतर पिकांसाठी ६ वर्षे वेध असते. आणि नंतरच्या काळासाठी योग्य ती फीस भरून नूतनीकरण करता येते.

औद्योगिक डिझाइन (Industrial Design): २५ मे २००० रोजी औद्योगिक डिझाइन कायदा लागू करण्यात आला. औद्योगिक डिझाइनची व्याख्या उपयुक्त लेख उत्पादनाच्या शोभेच्या किंवा सौंदर्याचा पेलु म्हणून केली जाते. डिझाइनमध्ये त्रिमितीय वैशिष्ट्ये असू शकतात. जसे की लेखाचा आकार किंवा पृष्ठभाग किंवा द्वितीय वैशिष्ट्ये, जसे की नमुने, रेखा किंवा रंग. सोप्या भाषेत सांगायचे तर एखादया उत्पादकाला ग्राहकांची पसंती ही त्या उत्पादनाच्या ग्राहकांची पसंती ही त्या उत्पादनाच्या उपयोगितेने मिळते तशीच ती त्या उत्पादनाच्या डिझाईन्समुळे व त्या उत्पादनाच्या वेष्टनाच्या बाह्य दृष्टरूपानेही मिळते. म्हणूनच उत्पादनाच्या डिझाइन एवढेस महत्त्व त्या उत्पादनाच्या वेष्टनाच्या डिझाइन यासाठी असते. औद्योगिक डिझाइन उद्योग आणि हस्त कला वस्तुच्या विविध प्रकारच्या उत्पादनांवर लागू केल्या जातात. पॅके जेस आणि कटेनरपासून फर्निशिंग आणि घरगुती वस्तुपर्यंत, प्रकाश उपकरणापासून दागिन्यांपर्यंत आणि इलेक्ट्रॉनिक उपकरणापासून कपडापर्यंत जसे की, बॅगचे डिझाइन, घराचे डिझाइन, मोबाइलचे डिझाइन, कारचे डिझाइन.

सारांश:

वेगवेगळ्या प्रकारची बौद्धिक संपदा निर्माण करण्यास प्रोत्साहन देणे हा बौद्धिक संपदा अधिकार कायदांचा मुख्य उद्देश आहे. जागतिक बाजारपेठ स्पर्धा टिकवून ठेवणे आणि ती सतत वाढविणे हे बौद्धिक संपदा अधिकारामुळे शक्य झाले आहे. तसेच एखादया गोष्टीचा आर्थिक कायदा मिळणे किंवा तिचे क्षेत्र मिळणे यातून कलाकृती नवनवे शोध त्यांच्या निर्मितीस प्रोत्साहन मिळते हे यामागील तत्त्व आहे. तसेच शोध कत्याने शोध लावण्यासाठी वापरलेली बृद्धी, कसब घेतलेले परिक्षम, खर्च केलेला वेळ आणि पैसा यांची भरपाई करणे आणि त्याचा शोध लावण्याची वृत्ती वाढीस लावणे याकरीता त्याला आर्थिक लाभ मिळवून देणे हा बौद्धिक संपदा अधिकाराचा मुख्य उद्देश आहे.

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6. International conversion for the protection of New varieties of plants



सामाजिक उद्योजकता-आधुनिक उद्योजकतेतील एक नवीन प्रवाह

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प्रास्ताविक:

सध्याच्या सामाजिक व आर्थिक प्रगती बरोबरच समाजातील विविध घटकांचा विकास आणि कल्याण करण्यासाठी समाजातील महत्वाच्या प्रश्नांवर सर्वोत्तम पर्याय शोधण्यासाठी सामाजिक उद्योजकता हा एक महत्त्वपूर्ण घटक असल्यामुळे या संकल्पनेचे अनेक अर्थशास्त्रज्ञ व शिक्षणतज्ञ समर्थन करत आहे. उद्योजकता क्षेत्रातील विविध कृती विशिष्ट सामाजिक घटकांवर आधारित कार्य करत असल्यामुळे कार्यक्षमतायुक्त किंवा नवीन कल्पनांनी युक्त अशा अर्थव्यवस्था तयार करण्यासाठी महत्वाची भूमिका पार पाडत आहे. सध्याच्या परिस्थितीत अल्प बेरोजगारी दर, व्यावसायिक दृष्टीने नवीन आस्थापनांची प्रवृत्ती, व्यावसायिकरण, सरकारचे निर्गुतवणूक धोरण, राजकीय व आर्थिक घडामोडी तसेच यातून तयार होणारे अर्थव्यवस्थेतील वेगवान संरचनात्मक बदल अशा अनेक कारणांमुळे सामाजिक उद्योजकतेची गरज निर्माण होताना दिसून येत आहे. अर्थातच सामाजिक उद्योजकता नवीन स्पर्धा निर्माण करते आणि त्यामुळे सुधारित उत्पादकता आणि निरोगी आर्थिक स्पर्धात्मकता निर्माण होऊन खऱ्या अर्थाने समाजातील विविध घटकांना त्याचा उपयोग होताना दिसून येत आहे.

उद्योजकीय क्षेत्रात सामाजिक मूल्य निर्माण करण्याच्या अंतिम ध्येयाने प्रेरित होऊन व्यावसायिक क्षेत्र विविध कृती कार्यक्रम राबवितात. त्यातून वैयक्तिक नफा मिळविण्याच्या हेतूने अल्प किंवा मध्यम स्वरूपात उद्योजकीय क्षेत्रात कामकाज केले जाते. सामाजिक उद्योजकता हे एक असे क्षेत्र आहे की, ज्यामध्ये सामाजिक मूल्य निर्मितीसाठी समाजातील विविध घटकांना विचारात घेऊन चांगली शिस्त, नवीन कल्पना व दृढ निश्चय यांच्या जोरावर उद्योजकीय क्षेत्रात कार्य करण्याची प्रवृत्ती वाढते. उदा. सिलिकॉन व्हॅली सारख्या उपक्रमांमधून उच्च व तंत्रशिक्षण देण्यासाठी बहुआयामी उपक्रम राबवले जातात. अशोकाचे संस्थापक बिल ड्रेटन यांच्या म्हणण्यानुसार, समाजातील विशिष्ट घटक काही मूलभूत समस्यांनी ग्रस्त असतो किंवा समाजातील त्या विशिष्ट घटकांना नवीन संधीचे सोने करण्याची संधी असते, तेव्हा ती संधी पूर्णत्वास नेण्यासाठी उद्योजकतेची गरज असते आणि नंतर त्या दृष्टीने वास्तववादी कल्पनांचे प्रत्यक्षात रूपांतर करण्यासाठी पूर्ण समाजात नवीन उद्योजकतेची आवश्यकता असते. आधुनिक काळातील संदेशवहन यंत्रणा तसेच हॉटेल व्यवसायामध्ये ज्याप्रमाणे सामाजिकता जोपासली जाते, अगदी त्याप्रमाणे शिक्षण आणि मानवी हक्कांमध्ये सामाजिकता जोपासण्याची आधुनिक संकल्पना म्हणजे सामाजिक उद्योजकता होय.

मुख्य शब्द: सामाजिक उपयोगिता, सामाजिक समस्या, व्यावसायिक संधी, समस्या निराकरण, समाज मान्यता

सारांश:

समाजातील विविध घटकांना व त्यांच्या कल्याणासाठी सार्वजनिकरित्या केले जाणारे नेतृत्व हे सामाजिक उद्योजकता म्हणून ओळखले जाते. सध्या सामाजिक उद्योजकतेच्या क्षेत्रात मान्यता मिळविण्यात अनेक अडचणी येत आहेत तसेच या संज्ञेचा वापर अजूनही काही प्रमाणात अस्पष्ट व अमर्यादित वाटतो. त्यामुळेच सामाजिक उद्योजकतेमध्ये येणारे विविध कार्य एका चौकटीत असणे आवश्यक वाटते. सामाजिक उद्योजकतेच्या क्षेत्रात काही सामाजिक किंवा नफा कमावणारे क्रियाकलाप येतात तसेच उद्योजकता क्षेत्रातील एक महत्वाचा प्रवाह म्हणून सामाजिक उद्योजकतेस पुढे आणण्यासाठी त्याची योग्य व्याख्या करणे आवश्यक आहे. शिवाय पारंपारिक उद्योजकतेच्या सिद्धांताची

समाजाला जोडणारी सैद्धांतिक चौकट अभ्यासणे आवश्यक आहे. त्यामुळे सदर संशोधन पत्रात सामाजिक उद्योजकतेची व्याख्या तसेच सामाजिक देयतेच्या क्रियाकलापांतील महत्वाच्या बाबींवर चर्चा करून सामाजिक उद्योजकांना उद्योजकतेच्या क्षेत्रात स्थान प्राप्त करून देण्यात मदत करेल.

सामाजिक उद्योजकता या शब्दाचा व संकल्पनेचा सध्याच्या परिस्थितीत अधिक वापर केला जात असल्यामुळे ही संकल्पना अधिकच लोकप्रिय होत आहे. तथापि काही परिस्थितीत सामाजिक उद्योजकता या विषयावर अधिक चांगल्या प्रकारे माहिती मिळविणे व यातील संकल्पना परिभाषित करण्याची गरज निर्माण झालेली आहे. सामाजिक उद्योजक इतर उद्योजकांपेक्षा वेगळे कसे आहेत? सामाजिक उद्योजक सामाजिक कार्यकर्त्यांच्या व्यवस्थापकांपेक्षा वेगळे कसे आहेत? सामाजिक उद्योजकता म्हणजे काय? अशा अनेक

संकल्पनांचा सदर संशोधन लेखात अभ्यास करण्यात आलेला आहे.

संशोधनाचे उद्देश:

१. सामाजिक उद्योजकता या नवीन संकल्पनेचा व वैशिष्ट्यांचा सविस्तर अभ्यास करणे.
२. सामाजिक उद्योजकतेची भूमिका व ध्येये अभ्यासणे.
३. सामाजिक आस्थापनांचे विविध प्रकार अभ्यासणे.
४. 'सामाजिक उद्योजक' या संकल्पनेचा अर्थ, प्रकार व मुलभूत घटक अभ्यासणे.

संशोधन पद्धती: संशोधकाने वर्णनात्मक संशोधन पद्धती वापरून माहिती मिळविण्याचा प्रयत्न केलेला आहे. माहिती संकलन करण्यासाठी सर्वेक्षण, प्रत्यक्ष भेटी, मुलाखत, प्रश्नावली या प्राथमिक स्रोतांचा तर संदर्भ पुस्तके, वर्तमानपत्रे, विविध संकेतस्थळे अशा दुय्यम स्रोतांचा वापर केलेला आहे.

'सामाजिक उद्योजकते'ची व्याख्या-

"सामाजिक उद्योजकता ही एक अशी नवीन संकल्पना आहे, जी आर्थिकदृष्ट्या स्वतंत्र, स्वावलंबी किंवा शाश्वत असलेल्या उद्योजकाभिमुख घटकांद्वारे समाजातील विविध घटकांना सामाजिक मूल्य व सेवा प्राप्त करून देण्यासाठी उद्योजकीय वर्तनाचा संच वापरते".

"पारंपारिक उद्योजकतेपेक्षा एक नवीन विकासात्मक व समाजाभिमुख असे व्यावसायिक क्षेत्र की, ज्यामध्ये सामाजिक मूल्यांची निर्मिती करून ते टिकवून ठेवणे म्हणजे सामाजिक उद्योजकता होय. सामाजिक उद्योजकतेमध्ये समाजातील विविध घटकांच्या समस्या सोडविण्यासाठी नेतृत्व करून समस्या निराकरण, समस्यांचे व्यावसायिक संधीमध्ये रूपांतरण आणि बदलत्या परिस्थितीनुसार नाविन्यपूर्ण उपक्रम राबविणे, अशा नेतृत्वयुक्त व शाश्वत स्वरूपाच्या उद्योजकतेचा समावेश होतो".

वरील व्याख्या एकूण चार घटकांना एकत्रित करते, त्यामुळेच सामाजिक उद्योजकता इतर व्यावसायिक उद्योजकांपेक्षा व उद्योजकतेपेक्षा वेगळी असल्याचे स्पष्ट होते.

१. ध्येयानुरूप समाजातील विविध समस्यांना समजून घेऊन त्या संबंधित घटकांना एक सामाजिक मूल्य पोहोचविण्याच्या ध्येयाने प्रेरित होऊन सामाजिक उद्योजक काम करत असतात.
२. इतर व्यावसायिक उद्योजकांपासून वेगळे असलेले, समाजाभिमुख, निष्ठापूर्वक व सामाजिक वैशिष्ट्यांच्या संयोजनाद्वारे प्रत्यक्ष कार्य करणारी व्यक्ती सामाजिक उद्योजक म्हणून पुढे येते.
३. नवीन व मजबूत संस्कृती असलेल्या उद्योजकाभिमुख संस्था स्थापन केल्या जातात.
४. उत्पादकांनी तयार केलेल्या उत्पान्नाच्या धोरणांची योजना आखून त्याची समाजासाठी अंमलबजावणी करण्याच्या हेतूने व आर्थिकदृष्ट्या स्वतंत्र संस्थांमध्ये

कार्य करणाऱ्या स्वावलंबी लोकांकडून अपेक्षित सामाजिक मूल्य वितरित करण्याचे उद्दिष्ट डोळ्यापुढे ठेवून कार्य केले जाते.

अर्थव्यवस्थेत स्वयंपूर्णता प्राप्त करण्यासाठी तसेच सरकारी निधीवरील अवलंबित्व कमी करण्यासाठी व देणग्यांवर अवलंबून राहण्याची प्रवृत्ती कमी करण्यासाठी सामाजिक उद्योजकता महत्त्वाची आहे. प्रस्तावित सामाजिक मूल्यांच्या वितरणाचा विस्तार करण्याची क्षमता वाढविण्यासाठी सामाजिक आणि नफा केंद्रित क्रियाकलापांचे मिश्रण करून सामाजिक उद्योजकता साध्य केली जाते.

'सामाजिक उद्योजकते'ची वैशिष्ट्ये:

१. **अपवादात्मक संच-** सामाजिक उद्योजकता ही पारंपारिक उद्योजकते सारखीच काम करणारी व व्यवसाय व्यवस्थापन करणारी प्रक्रिया असून नफा मिळविण्यापेक्षा व्यावसायिक क्षेत्रात समाजासाठी वस्तू व सेवांचे उत्पादन करून देण्यासाठी कार्यरत असलेली प्रणाली आहे. अर्थात सामाजिक उद्योजकतेतही अल्प व मध्यम प्रमाणात नफा प्राप्ती करणे हे महत्त्वाचे वैशिष्ट्य समाविष्ट आहे, असे असले तरीही समाजाच्या दृष्टीने विचार करत असताना या सामाजिक उद्योजकतेत काही ठराविक आस्थापनांकडून कोणत्याही प्रकारे नफा न मिळविता अर्थव्यवस्थेतील एक आधारभूत घटक म्हणून काम करणारी आस्थापना म्हणून ओळखली जाते. अगदी नफा न मिळविता ही सामाजिक जाणिवेच्या दृष्टिकोनातून व अपवादात्मक मानसिकता असलेल्या व्यक्तींद्वारे चालविलेल्या क्रिया कलापांचा हा एक अपवादात्मक संच म्हणून ओळखला जातो आणि बऱ्याच अंशी यातूनही यश प्राप्ती होत असते. या संकल्पनेनुसार अपवादात्मक मानसिकता ही एक व्यापक संकल्पना विचारात घेऊन व्यावसायिक उद्योजकांना व्यावसायिक लोकांपासून अलिप्त करते.

२. **आस्थापना निर्मिती-** सामाजिक उद्योजकीय क्षेत्रातील उद्योजकांकडून प्रामुख्याने समाजातील विविध घटकांचा विचार केला जातो आणि त्यामुळेच स्वतःच्या आस्थापनेला नफा मिळविण्याचे केंद्र बनविण्या ऐवजी समाजाच्या चांगल्या भविष्याची निर्मिती केली जाते. सामाजिक उद्योजक अशा संधींचा फायदा घेतात की, ज्या व्यावसायिक संधी इतर लोकांकडून दुर्लक्षित केल्या जातात. यामध्ये सामाजिक उद्योजक इतरांपेक्षा वेगळ्या पद्धतीने जोखीम स्वीकारतात व नव्याने आस्थापनांची निर्मिती करतात. उदा. धावपळीच्या युगात घरगुती पदार्थ बनविण्यासाठी नवीन उद्योजक पुढे येऊन लघुउद्योग सुरू करत आहेत.

३. **आर्थिक समृद्धीची गुरुकिल्ली-** बेरोजगारी व इतर आर्थिक समस्या दिवसेंदिवस वाढत असल्यामुळे आज असे कोणतेच क्षेत्र व्यावसायिकांच्या नजरेतून सुटलेले दिसत नाही. ज्या उद्योजकीय क्षेत्रांमध्ये कार्य करण्यास

पुरेसा वाव आहे, अशा क्षेत्रांमध्ये अनेक समस्या प्रयत्नांती सोडवून नवीन उद्योजक पुढे येत आहेत. सामाजिक उद्योजकीय क्षेत्रात उपलब्ध असलेल्या नवीन संघींचा शोध घेणे व त्यांना प्रत्यक्ष कृतीमध्ये आणण्यासाठी सर्वतोपरी प्रयत्न करून व्यवसाय उभारले जात आहेत. हे करत असताना ग्राहकास सर्वश्रेष्ठ मानून त्यांच्या गरजांची पूर्तता करण्याच्या प्रमुख उद्देशाने व नफा-प्राप्तीच्या काही दुय्यम उद्देशाने सामाजिक उद्योजकता अस्तित्वात येत आहे. अर्थातच कोणत्याही आस्थापनेला समाजाकडून स्वीकारल्यास व त्यांच्या ध्येयधोरणानुसार प्रतिसाद दिल्यास खऱ्या अर्थाने सामाजिक उद्योजकतेत आर्थिक समृद्धीची गुरुकिल्ली व यश प्राप्त होत असते.

४. **उद्योजकतेची बाल्यावस्था-** सामाजिक उद्योजकता या शब्दाचा वापर वेगाने वाढत असला तरी आजही सामाजिक उद्योजकतेच्या क्षेत्रात काही ठराविक गोष्टींचा व अपेक्षित कठोरपणाचा अभाव दिसून येत आहे. त्यामुळेच उद्योजकतेच्या व्यापक क्षेत्राच्या तुलनेत सामाजिक उद्योजकता त्या अर्थाने बाल्यावस्थेत आहे. आज समाजातील जटील समस्या सोडविणाऱ्या व्यक्तींच्या यशोगाथा सामाजिक उद्योजकतेच्या क्षेत्राला वैध ठरविण्यासाठी वापरल्या जात आहेत. उदा. 'स्टॅंडर्ड युनिव्हर्सिटी'ने त्यांच्या उद्योजकीय आराखड्याची बाह्य योग्यता कार्यक्रमाचा एक भाग म्हणून 'सोशल ई-लॅब' सुरू केली की, जी सामाजिक आणि पर्यावरणीय समस्या सोडवण्यासाठी उद्योजकतेच्या सामाजिक तत्वांच्या वापरास प्रोत्साहन देते. तसेच या कार्यक्रमाने अनेक यशस्वी सामाजिक प्रकल्पांची निर्मिती करून काही प्रमाणात कठोरता व नियमांचे पालन केलेले आहे. असे असले तरीही अद्यापही सामाजिक उद्योजकतेला उद्योजकता आणि ज्ञानाच्या सिद्धांतांशी अजूनही जोडलेले नाही. यावरून सामाजिक उद्योजकता बाल्यावस्थेत असल्याचे स्पष्ट होत आहे.

५. **सामाजिक उद्योजकतेतील स्वारस्य-** उद्योजकीय क्षेत्रातील सामाजिक समस्यांचे निराकरण करण्याच्या भूमिकेतून आणि समाजाचे कल्याण करण्याच्या समर्पक वृत्तीमुळे अनेक सामाजिक उद्योजक यामध्ये स्वारस्य दाखवत आहेत. समाजातील विविध घटक सामाजिक उद्योजकांना उच्च स्वरूपात मानपान देतात. कारण ते समस्या निराकरणासाठी आणि सामाजिक गरजा पूर्ण करण्यासाठी खऱ्या अर्थाने समाजाची मदत करतात आणि त्याने प्रभावित झालेल्या समाजास सुधारित जीवन जगण्याची गुणवत्ता प्राप्त करून देतात.

६. **सामाजिक कार्याचे ध्येय-** व्यावसायिक उद्योजकांचे अंतिम उद्दिष्ट हे नफाप्राप्ती व आर्थिक संपत्ती निर्माण करण्याचे असते तर सामाजिक उद्योजकांकडून विशिष्ट सामाजिक कार्य पूर्ण करण्यासाठी प्राधान्य दिले जाते. हे ध्येय पूर्ण करण्यासाठी ते समाजातील विविध समस्यांची

गांभीर्याने दखल घेऊन त्या सोडविण्यासाठी आपला हातभार कसा वाढेल? याचा जाणीवपूर्वक प्रयत्न करतात आणि सामाजिक मूल्य प्राप्त करून देतात. सामाजिक उद्योजकांना आपल्या व्यावसायिक परिपूर्तीसाठी समाधान, समाजसेवा व मानसिक आनंद या गोष्टी जास्त महत्त्वाच्या वाटतात आणि त्यामुळेच असे सामाजिक उद्योजक खऱ्या अर्थाने समाजासाठी काहीतरी देण्याच्या प्रयत्नातून कार्य करत असतात. त्यातून समाजमन व जीवन उंचावण्यास मदत होत असते.

सामाजिक उद्योजकतेची भूमिका आणि ध्येय:

१. सामाजिक उद्योजकता ही नव-संकल्पना व त्या मागील पार्श्वभूमी समजून घेणे.
२. व्यावसायिक उद्योजकता नफा मिळविण्याच्या क्षमतेने प्रेरित असते परंतु समाजासाठी काहीतरी करण्याच्या भावनेतून सामाजिक उद्योजकता काम करते.
३. आपल्या 'द वेल्थ ऑफ नेशन्स' या पुस्तकात अर्थशास्त्रज्ञ 'अँडम स्मिथ' यांनी स्पष्ट केले आहे की, उद्योजक स्वतःच्या स्वार्थासाठी उत्पादने करतो मात्र असे असले तरीही नकळतपणे त्यातून सामाजिक उद्योजकता जोपासली जाते व एक प्रकारे समाजातील समस्या काही प्रमाणात कमी केल्या जातात आणि म्हणूनच जेव्हा व्यक्ती स्वतःच्या हिताचा पाठपुरावा करते तेव्हा त्यास इतरांना फायदा होईल अशा निर्णयाकडे मार्गदर्शन केले जाईल.
४. सामाजिक उद्योजक उपलब्ध संसाधनांचा अभाव व असमतोल कमी करण्यासाठी आवश्यक ती कार्य करतो तसेच समाजातील सर्व समस्यांमागील मूळ कारणांचा शोध घेतो. अर्थात सामाजिक उद्योजकाचे मुख्य ध्येय नफा मिळविणे हे नसते तर एक सामाजिक उद्योजक समाजात व्यापक सुधारणा अंमलात आणण्याचा प्रयत्न करतो. तथापि सामाजिक उद्योजकांनी अशा सामाजिक कार्यामध्ये यशस्वी होण्यासाठी सामाजिक व आर्थिक दृष्ट्या जबाबदारीची जाणीव ठेवणे आवश्यक आहे.

सामाजिक उद्योजकता विकासातील उदयोन्मुख कल- नवीन प्रवाह

१. सार्वजनिक व खाजगी संस्थांची भागीदारी-

आधुनिक उद्योजकतेमध्ये जेव्हा समाजातील विविध सामाजिक उद्योजकता खऱ्या अर्थाने सरकार व जनसमुदाय एकत्र येऊन काम करतात, तेव्हाच सामाजिक नवीन कल्पना वाढीस लागतात तर याउलट सामाजिक क्षेत्रातील समुदाय सर्वसामान्यांच्या सहभागाकडे दुर्लक्ष करतात तेव्हा सामाजिक उद्योजकतेतील सर्वसमावेशकतेला अडथळा येतो. शाश्वत उपायांसाठी विशिष्ट प्रशिक्षणाच्या माध्यमातून सहभाग नोंदवला जातो.

२. सामायिक मूल्य तयार करणे-

सामायिक उद्योजकतेच्या माध्यमातून सर्वसमावेशक असे सामायिक मूल्य निर्माण केले जाते.

सामाजिक प्रगती बरोबरच जास्तीत जास्त आर्थिक वाढीचा समावेश या प्रक्रियेत केला जातो. सामाजिक उद्योजकांनी समाजाच्या गरजांवर लक्ष केंद्रित करून परस्पर आणि सामाजिक लाभ वाढविण्याची महत्त्वाकांक्षा बाळगून कार्य करणे यामध्ये अपेक्षित असते. समाजातील सर्व घटकांचा सामूहिक विचार करून त्यांच्यासाठी सामाजिक उपक्रम, ज्ञान आणि कौशल्याच्या एकूण संपत्तीमध्ये वाढ करता येते.

३. वाढीव सामाजिक प्रभावाची गुंतवणूक-

सामाजिक उद्योजकतेत समाजाच्या दृष्टीने महत्त्वाचे विषय उदा. आरोग्य सेवा, शिक्षण, नाविन्यता, ऊर्जा, पर्यावरण संवर्धन यांसारख्या क्षेत्रांवर लक्ष केंद्रित केल्यामुळे प्रभाव आधारित गुंतवणुकीला महत्त्व प्राप्त होते. सामाजिक उद्योजकतेत आर्थिक परतावा प्राप्त करण्याबरोबरच समाजातील विविध घटकांच्या सामाजिक आणि पर्यावरणीय गरजा देखील पूर्ण करण्याच्या दृष्टीने उपलब्ध असलेल्या संसाधनांचे वाटप केले जाते व त्यातून संसाधन वाटपाच्या कार्यक्षमतेला प्रोत्साहन दिले जाते.

४. तंत्रज्ञानाचा अवलंब-

आधुनिक उद्योजकतेमध्ये तंत्रज्ञान परिवर्तनाची भूमिका बजावत आहे. साहजिकच सामाजिक उद्योजकता ही तंत्रज्ञान व त्याचा अवलंब करण्याची क्षमता स्वीकारत आहे. सामाजिक उद्योजकतेतील आव्हाने सोडविण्यासाठी तंत्रज्ञानाचे महत्त्व अधोरेखित केले जाते तर विद्यार्थ्यांना स्वयंपूर्णता, रोजगार क्षमता आणि व्यावसायिक संधी निर्माण करण्यासाठी तंत्रज्ञानाचा लाभ घेण्यास सक्षम करणारे अभ्यासक्रम विविध संस्थांकडून उपलब्ध करून दिले जातात. सामाजिक उद्योजकांना पुढील आव्हानांचा सामना करावा लागतो-

उपलब्ध संसाधनांचा अपुरा पुरवठा, सामाजिक प्रश्नांची सोडवणूक करण्यासाठी सातत्यपूर्ण व नवनवीन शोधांची गरज तसेच सामाजिक सेवा अविरतपणे देण्याचे उत्तरदायित्व यांसारख्या आव्हानांना सामोरे जावे लागते. समाजातील काही शैक्षणिक घटकांकडून अशा सामाजिक समस्यांचे निराकरण करण्यासाठी समाजातील सर्व घटकांमधील समानता आणि सामाजिक प्रतिष्ठा यावर लक्ष केंद्रित करणारी मानसिकता वाढविण्यासाठी सामाजिक उद्योजकता महत्त्वाची भूमिका बजावत आहे.

सामाजिक उद्योजकता विकासातील नावीन्य-

सामाजिक उद्योजकतेचे गतिशील क्षेत्र संशोधकांना सातत्याने शिकण्याची व नवीन गोष्टींचे अनुकरण करण्याची संधी प्राप्त करून देते. सामाजिक क्षेत्रात उद्योजकतेचा प्रभाव निर्माण करण्यासाठी आवश्यक असलेले ज्ञान, उपलब्ध साधने आणि कौशल्य प्राप्त करण्यासाठी अनेक उद्योजकीय विकासातील व व्यवस्थापनातील पदवी व पदव्युत्तर उपक्रम सुरू करण्यात आलेले आहेत. या माध्यमातून सामाजिक विकासाची कल्पना व त्याचे व्यवस्थापन करण्यासाठी संशोधकांना सखोल माहिती देऊन त्या दृष्टीने सामाजिक

गरजांचा प्रतिसाद वाढविण्यासाठी सामाजिक उद्योजकता ही संकल्पना विकसित होत आहे. अर्थातच सामाजिक उद्योजकता प्रत्यक्षात उतरविण्यासाठी पारंपारिक तसेच नवीन शिक्षण प्रणाली बदलाचे व्यवस्थापक म्हणून कार्य करत आहे. सामाजिक उद्योजकतेतील सामाजिक बदलांसाठी विविध शैक्षणिक संस्थांकडून 'स्ट्रॅटेजिक इनोव्हेशन' सारख्या अभ्यासक्रमांवर भर दिला जात आहे. जेणेकरून संशोधक विद्यार्थ्यांमध्ये व उद्योजकांमध्ये नवनिर्मितीचे प्रमाण अधिक असेल. सामाजिक उद्योजकतेमधील नवीन प्रवाह विचारात घेत असता, सार्वजनिक व खाजगी क्षेत्रातील भागीदारी, सामायिक मूल्य निर्मिती, सामाजिकतेचा वाढीव प्रभाव, गुंतवणूक व तंत्रज्ञान वापरण्याचे कौशल्य यासारख्या बाबी महत्त्वाच्या ठरत आहेत.

सामाजिक उद्योजकाला केवळ नफा मिळवण्यासाठी नव्हे तर समाजातील विविध घटकांच्या समस्या निराकरणासाठी व मोठ्या प्रमाणात सामाजिक हितासाठी व्यवसाय सुरू करण्यामध्ये रस असतो. हे सामाजिक उद्योजक निसर्ग व पर्यावरणास अनुकूल अशी उत्पादने तयार करण्याचा प्रयत्न करतात. त्याचबरोबर अर्थव्यवस्थेतील अल्पसंख्यांक व निम्न-मनोबल असलेल्या आस्थापनांना आपल्या सेवा देऊन जास्तीत जास्त परोपकारी क्रिया-कलापांवर लक्ष केंद्रित करू शकतात.

'सामाजिक उद्योजक' म्हणजे काय?

"सामाजिक उद्योजक ही एक अशी व्यक्ती आहे, जी भारतासारख्या देशातील सामाजिक समस्या सोडविण्याची क्षमता असलेल्या नवीन बाबींचा पाठपुरावा करते. अशा व्यक्ती स्वतःच्या पुढाकारातून समाजात सकारात्मक बदल घडविण्यासाठी, नवीन व्यावसायिक संधींची जोखीम पत्करण्यासाठी आणि सर्वोत्तम उपाय शोधून काढण्यासाठी नेहमीच प्रयत्न करत असतात. सामाजिक उद्योजकांचा असा विश्वास असतो की, आपल्या वैयक्तिक ज्ञान व कौशल्याचा तसेच कार्यानुभावाचा वापर करून सामाजिक जीवनात नेतृत्व करावे. समाजातील सर्व घटकांना मदत करण्यासाठी, सेवा पुरविण्यासाठी आणि जागतिक पातळीवर उदरनिर्वाहाच्या पलीकडे जाऊन सकारात्मक बदल घडून आणण्याचा एक सकारात्मक मार्ग म्हणून सामाजिक उद्योजक आपली भूमिका पार पाडत असतात. व्यावसायिक क्षेत्रात सामाजिक प्रभावाची गुंतवणूक करून, ग्राहकांना जागृत करून तसेच सामाजिक जबाबदारीच्या जाणिवेतून असे उद्योजक उद्योजकतेच्या क्षेत्रात चांगले यश प्राप्त करतात.

'सामाजिक उद्योजका'चे स्वरूप:

१. सामाजिक उद्योजकाला केवळ नफा मिळवण्यासाठी नव्हे तर मोठ्या सामाजिक हितासाठी व्यवसाय सुरू करण्यात रस असतो.
२. सामाजिक उद्योजक निसर्ग व पर्यावरणास अनुकूल अशी उत्पादने तयार करण्याचा प्रयत्न करतात आणि उद्योजकीय क्षेत्रातील कमकुवत आस्थापनांना आपल्या

सेवा देऊन जास्तीत जास्त परोपकारी क्रिया-कलापांवर लक्ष केंद्रित करतात.

३. समाजातील एक घटक म्हणून सामाजिक जबाबदारीची गुंतवणूक स्वतःहून करण्याचा, पर्यावरणीय, सामाजिक आणि प्रशासन गुंतवणुकीबरोबरच सामाजिक उद्योजकता ही एक वाढती प्रवृत्ती आहे.
४. सामाजिक उद्योजकांचे चार प्राथमिक प्रकार आहेत, यामध्ये सामुदायिक सामाजिक उद्योजक, ना-नफा सामाजिक उद्योजक, परिवर्तनशील सामाजिक उद्योजक आणि जागतिक सामाजिक उद्योजक यांचा समावेश होतो.

सामाजिक उद्योजकांचे प्रकार-

१. सामुदायिक सामाजिक उद्योजक-

एका विशिष्ट समुदायातील सामाजिक उद्योजक ज्या समुदायात राहतो, त्या समुदायातील गरजा, स्थानिक पातळीवर असलेल्या तसेच लहान भौगोलिक प्रदेशाच्या गरजेला प्राधान्य देतो. या प्रकारच्या सामाजिक उद्योजकांना त्यांच्या प्रयत्नांच्या विशिष्ट स्वरूपाबद्दल कमी चिंता असते कारण स्थानिक पातळीवरील समस्यांचे निराकरण करण्यासाठी आवश्यक असलेले ज्ञान व कौशल्य हे मुळतः अशा उद्योजकांमध्ये असते आणि त्यामुळेच स्थानिक समुदायांमध्ये अशा उद्योजकांचे मजबूत संबंध निर्माण होतात. स्थानिक पातळीवरील नातेसंबंधांचा फायदा घेऊन असे उद्योजक आपापल्या स्थानिक गावांमध्ये उद्योजकीय संसाधने उपलब्ध करण्यास यशस्वी होतात. असे उद्योजक समुदायाचे सदस्य स्थानिक स्वराज्य संस्था व सरकारी समुदायांच्या गरजा पूर्ण करण्याच्या दृष्टीने अर्थपूर्ण भागीदारी निर्माण करतात व समाजातील सर्व घटकांना एकत्र आणून एकत्रितपणे काम करतात.

२. ना-नफा सामाजिक उद्योजक-

ना-नफा सामाजिक उद्योजक हा सामाजिक उद्योजकतेतील अधिक प्रचलित व सामान्य असा प्रकार आहे की, जेथे थेट समुदायापेक्षा वैयक्तिक व्यक्तीला लाभ देण्यासाठी सामाजिक संस्थेचे एक व्यापक उद्दिष्ट असते. सध्याच्या काळात रिमोट किंवा ऑनलाईन पद्धतीने सामाजिक उद्योजकतेचा वापर होत असल्यामुळे व्यापक स्वरूपात उद्योजकता अस्तित्वात आणणे सोपे झालेले आहे. ना-नफा सामाजिक उपक्रम इतर व्यावसायिक उद्योजकते सारखेच कार्य करतात. ना-नफा सामाजिक संस्था नफ्यासाठी काम न करता पहिल्या टप्प्यात सामाजिक विकास व स्थैर्य प्राप्त करण्यासाठी काम करत असल्याचे स्पष्ट होते आणि यातूनच पैसे कमवण्यासाठी गुंतवणूकदार बनण्याऐवजी समाजातील विविध समस्यांचे निराकरण करण्यासाठी व सामाजिक हितासाठी क्षमतेनुसार पैसे खर्च करण्याचा जाणीवपूर्वक प्रयत्न केला जातो. यामुळे सामाजिक बांधिलकीत वाढ होऊन संस्थेच्या नावलौकिकात भर पडतो.

३. परिवर्तनशील सामाजिक उद्योजक-

ना-नफा सामाजिक उपक्रम हा समाजातील गरजांनुसार दिवसेंदिवस आपल्या सेवा व सुविधांमध्ये वाढ करतांना काही सकारात्मक व नवीन बदल करत असतो. अशा प्रकारच्या सामाजिक उद्योजकतेत ज्या प्रमाणात नफा वाढतो, त्या प्रमाणात व्यवसाय संस्थेची ध्येयही वाढू शकतात. एक परिवर्तनशील सामाजिक उद्योजक एका सामाजिक कार्यक्रमातून विविध क्षेत्रांना फायदा मिळवून देण्यासाठी कार्याचे प्रमाण वाढवतो. उदा. परिवर्तनशील सामाजिक उद्योजकतेत व्यवसाय संस्थेचा नावलौकिक महत्वाचा असतो आणि त्यासाठी ना-नफा तत्वावर चालविणारे सामाजिक उपक्रम नवीन नियमानुसार व व्यापक प्रमाणात अस्तित्वात येतात. अशी उद्योजकता ही बदलत्या काळानुसार कार्य करत असल्यामुळे ही नेहमीच समाजासाठी परिवर्तनशील आणि विकासात्मक ठरत असते.

४. जागतिक सामाजिक उद्योजक-

सामाजिक उद्योजकतेचे क्षेत्र हे एखाद्या विशिष्ट भौगोलिक सीमारेषा पुरते अथवा देशापुरते मर्यादित नसते कारण बऱ्याच वेळा समाजातील लोक गरीबी, नैराश्य, राहणीमानाचा अभाव अशा व्यापक सामाजिक संकल्पना स्वतःच सोडवण्याचा प्रयत्न करत असतात. यातून ही समस्या स्थानिक पातळीवर न राहता एक प्रकारे जागतिक स्वरूप प्राप्त करते आणि अशा जागतिक समस्या सोडविण्याच्या दृष्टिकोनातून सामाजिक उद्योजक एक किंवा अनेक प्रदेशांमधील समस्या सोडविण्याचा जाणीवपूर्वक प्रयत्न करतात. यामुळे एखाद्या विशिष्ट प्रदेशासाठी कमी-अधिक प्रमाणात रुजलेल्या समस्या सोडविण्यासाठी जागतिक सामाजिक उद्योजकता महत्वाची भूमिका पार पाडते. किंबहुना एका विशिष्ट प्रदेशातील सामाजिक समस्या ज्या पद्धतीने सुटू शकतात, त्याच प्रणालीच्या माध्यमातून इतरही प्रदेशातील समस्या सोडविण्यासाठी आणि सामाजिक विकासासाठी जागतिक सामाजिक उद्योजकता प्रकर्षाने कार्य करतांना दिसत आहे. उदा. बिल आणि मेलिंडा गेट्स फाउंडेशनच्या वतीने जगभरातील विविध आजारांवरील लसीकरण शोधण्याचे सातत्याने प्रयत्न केले जातात. हे एक जागतिक सामाजिक उपक्रमाचे आदर्श उदाहरण आहे.

सामाजिक उद्योजकतेतील 'सिक्स पी'ज (सहा पी):

सामाजिक उद्योजकता ही एक आधुनिक संकल्पना असून या संकल्पनेच्या माध्यमातून समाजातील विविध घटकांच्या समस्या जाणून घेणे व त्यावर उपाययोजना करणे या उद्देशाने सामाजिक उद्योजकता कार्य करत आहे. सामाजिक उद्योजकतेत श्रेणीनुसार वेगवेगळी संसाधने, स्थानिक अडथळे, त्यातील विविध टप्पे यातून उद्योजकाला पुढे जावे लागते. हे करत असताना पुढील सहा क्षेत्रांमध्ये संशोधन करून उद्योजकीय क्षेत्रात कार्य करावे लागते:

१. पीपल (लोक) -

सामाजिक उद्योजकीय उपक्रम सुरू करण्या करताना प्रामुख्याने आपणास कोणत्या लोकांना फायदा मिळवून द्यायचा आहे, हे ओळखणे व त्यासाठी प्रयत्न करणे गरजेचे असते. सामाजिक उद्योजकतेत विशिष्ट भौगोलिक प्रदेशातील लोक विचारात घेऊन त्यांच्या सामाजिक समस्यांचे निराकरण करण्यासाठी व त्यांना सेवा उपलब्ध करून देण्यासाठी उद्योजकता सुरू केली जाते. एकूण लोकसंख्येतील कमी, मध्यम व उच्च उत्पन्न गट अशी वर्गवारी करून संबंधित उद्योजकाला कोणत्या उत्पन्न गटातील लोकांसाठी सेवा व उत्पादन उपलब्ध करून द्यावयाचे आहे? याचा शास्त्रीय अभ्यास करून त्यादृष्टीने उपक्रमाचे आयोजन करणे यामध्ये अपेक्षित आहे. अर्थात समाजातील लोक हेच सामाजिक उद्योजकेतील आधारस्तंभ असल्यामुळे लोकांच्या दृष्टीने विचार होणे आवश्यक आहे.

२. प्रॉब्लेम (समस्या) -

सामाजिक उद्योजकतेमध्ये खऱ्या अर्थाने समाजातील घटकांच्या समस्या सोडविण्याचा प्रयत्न केला जातो. विशेषतः एक सामाजिक उद्योजक एक समस्या ओळखून, संबंधित विविध घटकांचा अनेक टप्प्यांमध्ये विचार करून, संबंधित लोक आणि समस्या या दोघांना एकत्र जोडतो. उदा. सामाजिक उद्योजकतेत विशिष्ट प्रदेशातील बेघरांना त्यांच्या वैयक्तिक समस्येपासून दूर करण्यासाठी घरांची उपलब्धता करून देऊ शकतो. अर्थात वैयक्तिक व सामाजिक समस्या सामूहिक समस्येच्या माध्यमातून दूर करता येऊ शकतात.

३. प्लॅन (योजना) -

समाजातील विविध घटकांबरोबरच अर्थव्यवस्थेतील महत्वाच्या समस्या ओळखून सामाजिक उद्योजकांनी त्या समस्या सोडवण्यासाठी एक परिपूर्ण व सर्वांगीण योजना तयार करणे आवश्यक आहे. सामाजिक उद्योजक केवळ एखादी व्यवसाय संस्था चालवण्यासाठी व्यवसाय योजना तयार करण्याचा प्रयत्न करत नाहीत तर सामाजिक व्यवसाय संस्था अर्थव्यवस्थेत कशी टिकून राहील? व त्यातून सामाजिक उद्दिष्ट साध्य करण्यासाठी बाह्यपक्ष कशी मदत करू शकतात? याचे देखील सामाजिक उद्योजकांनी मूल्यांकन केले पाहिजे.

४. प्रेफरन्स (प्राधान्य) -

सामाजिक उद्योजकांसमोरील सर्वात मोठे आव्हान म्हणजे त्यांना ज्या सामाजिक समस्यांचे निराकरण करावयाचे आहे, त्या सोडविण्यासाठी उपलब्ध संसाधनांचा अभाव असणे. याचाच अर्थ अपुरा भांडवल पुरवठा, विशेष ज्ञानाचा अभाव, अर्थव्यवस्थेतील बाह्य शक्तींवर नियंत्रण ठेवण्यात मर्यादा अशा मुख्य अडचणींचा सामाजिक उद्योजकांना सामना करावा लागतो. त्यामुळेच सामाजिक उद्योजक समस्या सोडविण्याचा प्रयत्न कसा करतात. उद्योजक आपले व्यवसाय कार्य कसे करतात आणि उद्योजकतेच्या

विस्तारासाठी कोणत्या महत्वाच्या घटकांना प्राधान्य देतात यानुसार सामाजिक उद्योजकतेचा विकास व विस्तार अवलंबून असतो.

५. प्रोटोटाइप (आदर्श नमुना) -

प्रत्येक देशाच्या उत्पादन संसाधनांना काही मर्यादा असल्यामुळे सामाजिक उद्योजक विस्तार करण्यापूर्वी या संसाधनांची उपलब्धता समजून घेतात. उद्योजकतेतील उपलब्ध संसाधने आणि भांडवलाची पर्याप्त मात्रा विचारात घेऊन अपेक्षित असलेला व्यवसाय व सामाजिक उत्पादन व सेवांची निर्मिती करण्यासाठी आदर्श नमुना तयार करण्यात येतो. या सुरुवातीच्या टप्प्यात आगाऊ स्वरूपात गुंतवणूक करून लोकांचा उत्पादनाप्रती विश्वास वाढविण्याचे मोठे आव्हान असते. असे असले तरीही भावी गुंतवणूकदार व्यवहार्य उत्पादने आणि आदर्श नमुना उत्पादने पाहून सामाजिक उद्योजकांची प्रशंसा केल्याने एक आदर्श उद्योजकीय क्षेत्र अस्तित्वात येते.

६. परशु (पाठपुरावा) -

सामाजिक उद्योजकतेत प्रत्येक पैलूचे मूल्यमापन करून सामाजिक बदल अधिक चांगल्या प्रकारे करण्याच्या दृष्टीने सतत लक्ष ठेवले जाते. अर्थातच उपलब्ध संसाधनांच्या माध्यमातून सातत्याने पाठपुरावा करण्यात येत असतो.

सामाजिक उद्योजक आणि इतर सामाजिक संकल्पना-

सामाजिक उद्योजकता ही सामाजिक जबाबदार गुंतवणूक आणि पर्यावरणीय, सामाजिक तसेच प्रशासन गुंतवणुकीशी संबंधित आहे. सामाजिक जबाबदारी गुंतवणूक म्हणजे सकारात्मक सामाजिक प्रभाव असलेल्या कंपन्या आणि फंडांमध्ये पैसे गुंतविण्याची पद्धत होय. सध्या सामाजिक जबाबदारी गुंतवणुकीची लोकप्रियता देखील वाढलेली दिसून येत आहे. सामाजिकदृष्ट्या जबाबदार गुंतवणूकदार समाजास हितकारक अशा वस्तू व सेवांचे उत्पादन करणाऱ्या कंपन्यांमधील गुंतवणूक टाळतात आणि प्रामुख्याने सामाजिक न्याय, पर्यावरणीय स्थिरता आणि पर्यावरणीय ऊर्जा किंवा स्वच्छ तंत्रज्ञानाच्या प्रयत्नांमध्ये गुंतलेल्या कंपन्यांचा शोध घेऊन आपली सामाजिक जबाबदारीची गुंतवणूक करतात. सामाजिक दृष्ट्या जागरूक गुंतवणूकदार पर्यावरणीय, सामाजिक आणि प्रशासन निकषांसाठी संभाव्य नवीन गुंतवणूक शोधून, अनेक मानकांचा विचार करून आपली गुंतवणूक करतात. एखादी कंपनी निसर्गाचे रक्षण करण्याच्या दृष्टीने कर्मचारी, पुरवठादार, ग्राहक आणि अन्य व्यवसाय समुदायांबरोबर चांगले संबंध व्यवस्थापन करत असेल तर अशा कंपन्यांमध्ये जास्तीत जास्त सामाजिक गुंतवणूक करून खऱ्या अर्थाने सामाजिक उद्योजकता जोपासली जाते. अर्थातच समाजाशी जोडल्या गेलेल्या अनेक संकल्पनांचा एकत्रितपणे सामाजिक उद्योजकतेमध्ये सहभाग करून घेतला जातो. त्यामुळेच सामाजिक उद्योजकता अतिशय व्यापक व विस्तृत असून इतर सर्व सामाजिक संकल्पना याच संकल्पनेतील उपभाग असल्याचे या ठिकाणी स्पष्ट होते.

सामाजिक उद्योजकतेची उदाहरणे-

समाजातील पाणीटंचाईवर मात करण्यासाठी नवीन विहिरींच्या बांधकामाद्वारे पिण्यायोग्य पाण्याची सेवा सुरू करणे, दुर्गम भागातील लोकांना उच्च क्षमता असलेल्या इंटरनेट जोडणीने प्रगत भागातील लोकांशी जोडणे, शालेय विद्यार्थ्यांना माहिती व तंत्रज्ञानाच्या संसाधनांमध्ये समाविष्ट करून घेणे, बेरोजगार किंवा कमी उत्पन्न असलेल्या व्यक्ती किंवा गटांना बँकिंग सेवा प्रदान करणे, विशिष्ट समुदायाच्या गरजा पूर्ण करणाऱ्या मोबाईल ॲप्स विकास करणे, जलवाहिन्या आधुनिक पद्धतीने रोपण करणे, बंद पडलेल्या पॉवर लाईन्स सु-व्यवस्थित करणे, वारंवार होणाऱ्या अपघाती जागांचे सर्वेक्षण करून अपघात विरोधी यंत्रणा बसविणे, कायद्याची अंमलबजावणी चांगल्या पद्धतीने होण्यासाठी व सर्वसामान्य नागरिकांच्या तक्रारींचे निवारण करण्यासाठी विविध एप्लीकेशन्स अस्तित्वात आणणे, आधुनिक शैक्षणिक उपक्रम राबविणे, सेवा नसलेल्या भागात बँकिंग सेवा प्रदान करणे, साथीच्या आजारांमध्ये सामाजिक सहकार्य करणे, कोरोनासारख्या महामारीच्या काळात अनाथ झालेल्या मुलांना शैक्षणिक, सामाजिक व आर्थिक मदत करणे अशा अनेक सामाजिक कार्यांच्या माध्यमातून सामाजिक उद्योजकता अस्तित्वात येते. आगामी काळात सर्वच भारतीय नागरिकांनी सामाजिक उद्योजकतेतील विविध पैलूंचा अभ्यास करून व्यावसायिक उद्योजकते बरोबरच यामध्येही सक्रिय सहभाग घेऊन अर्थव्यवस्थेतील यंत्रणा कार्यान्वित करण्याचे अपेक्षित आहे.

समारोप-

पारंपारिक उद्योजकतेतील बहुतांश उद्योजक भरपूर पैसे कमवण्यासाठी व्यवसाय करतात मात्र सामाजिक उद्योजकतेच्या माध्यमातून असे लोक सामाजिक हितासाठी व्यावसायिक उपक्रम सुरू करतात. सामाजिक उद्योजकतेचा ध्यास असलेल्या व्यक्तींकडून ठराविक लोकांच्या सामाजिक समस्यांची सोडवणूक करण्याचा प्रयत्न केला जातो. यासाठी समस्येची ओळख करण्यापासून समस्येचे निराकरण व सर्वोत्तम उपाय शोधण्याचा सर्वांगीण विचार केला जातो. सामाजिक उपक्रम आणि उद्योजकतेत समानता असली तरी प्रामुख्याने सामाजिक उद्योजकतेत विशिष्ट समुदायासाठी किंवा प्राप्तकर्त्यांच्या आधारासाठी निर्माण केलेल्या चांगल्या गोष्टींना प्राधान्य देण्यात येते. सामाजिक उद्योजकतेत नफा मिळविण्याच्या तत्वापेक्षा सामाजिक समाधान व मान्यता मिळविण्याचा जाणीवपूर्वक प्रयत्न करण्यात येतो आणि हाच विश्वास खऱ्या अर्थाने समाजातील विविध घटकांचा शाश्वत व चिरंतन काळ टिकणारा विकास घडवून आणतो, म्हणूनच सामाजिक उद्योजकता ही काळाची गरज बनत असल्याचे स्पष्ट होत आहे.

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लोकसाहित्य आणि ग्रामीण साहित्य परस्पर संबंध- एक अभ्यास

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प्रस्तावना:

लोकसाहित्य ही संकल्पना मानवी समूहाचे अविष्कारण करत असते त्यांच्या भावभावना त्यांचे अनुभव पिढ्या-पिढ्यांपासून चालत आलेली भावना लोकशाही त्यामध्ये आपल्याला दिसून येते. लोक साहित्यात लवकिक पुराण परंपरा दिसून येतात त्यामध्ये लोकगीते लोकनाट्य लोक विधि परंपरा रितीरिवाज इत्यादींचा लोकसाहित्यात आपल्याला समावेश होताना दिसतो. लोकसाहित्यातून व्यापक अशा लोकसमूहाचे आचार विचार त्यांच्या भाषेचे संस्कृतीचे व त्यातील कलात्मक अंगाचे दर्शन कमी अधिक प्रमाणात दिसून येते. लोकसाहित्य एका पिढीकडून दुसऱ्या पिढीकडे संक्रमित होत असते त्याचा निर्माता अज्ञात असतो त्याची निर्मिती कोणीतरी एका व्यक्तीकडून झालेली असली तरी निश्चितपणे त्या व्यक्तीचे नाव सांगता येत नाही जरी एखाद्या कार्याचे नाव समजले तरी बदलत्या काळात त्याच्या रचनेत इतके बदल झालेले असतात किती रचना कोणा एका व्यक्तीचे राहता साऱ्या समाजाची झालेली असते त्यामुळे जनतेला लोकसमूहाच्या रस्त्याचे स्वरूप प्राप्त झालेली दिसून येते. लोकसाहित्य हे नीती शिक्षणाचे माध्यम म्हणून महत्त्वपूर्ण भूमिका पार पाडत असते लोकशाही त्याची भाषा सरळ साधी अकलनीय असून ती एकाच वेळी अनेक अर्थांची प्रचिती करून देताना दिसून येते. व्यक्तीच्या जन्मापासून ते मृत्यूपर्यंत आणि मृत्यूच्या पश्चात ते पुनर्जन्म पर्यंत सर्वच लोक विधी लोक समज लोक परंपरा आपल्याला लोकसाहित्य मधून दिसून येतात.

लोकसाहित्य हे ग्रामीण भागात म्हणजेच खेड्यामध्ये खऱ्या अर्थाने आपल्याला पाहायला मिळते ग्रामीण जीवनातील व्यथा वेदना भावभावना व जगण्याविषयी तंत्रज्ञान ही ग्रामीण जीवनामध्ये निसर्गामध्ये किती झालेले आहे ग्रामीण जीवनातील सुखदुःख चढ उतार स्थिती गती यांचा अविष्कार न करणाऱ्या साहित्याला आपण ग्रामीण साहित्य म्हणू शकतो शेती आणि निसर्ग यांच्यातून निर्माण झालेले समाज रचनेची वेगळी पण दाखवणारे साहित्य लोक माणसाच्या स्थळावर दिसून येते. आपल्या भारत देशात आज 70 ते 80 टक्के लोक ग्रामीण भागात राहतात सर्व सुख सुविधा साधनांची उपलब्ध खेड्यात आपल्याला दिसत नाही खेड्याचे जीवन सतत संघर्षमय असते .

ग्रामीण जीवनाच्या केंद्रस्थानी शेतकरी आहे कारण इतिहास त्यांचा मुख्य व्यवसाय आहे त्या व्यवसायाला पूर्व जोडून इथे लहान मोठे व्यवसाय येतात शेती पिकली तरच सर आबादी -आबाद नाहीतर मात्र सर्व बरबाद ही ग्रामीण जीवनाचे सूत्र आहे अशा केंद्रस्थानी असलेल्या शेतकऱ्यांच्या शोषण शेटजी भटजीकडून कसे होते आणि अज्ञान व शेतकरी स्वतःच्या दुर्दशा कसा

कारणीभूत ठरतो यासाठी आत्मभान येण्याची गरज कशी आहे या संबंधाने महात्मा फुले यांनी शेतकऱ्यांच्या आसूड नावाचा ग्रंथ लिहिला तो ग्रामीण साहित्याची विजे खऱ्या अर्थाने त्या शेतकऱ्यांचे आसूड मध्ये दिसून येतात.

लोकसाहित्यातून जसे लोक जीवनाचे विविध पैलूंचे दर्शन घडते त्याचप्रमाणे लोक जीवनाचे अविष्कारण कृषी संस्कृतीत होताना दिसते . ग्रामीण साहित्य आणि लोकसाहित्य यांचा विचार केल्यास दोन्ही साहित्यांना मौखिक परंपरा आहे ग्रामीण साहित्याला शब्द लिखित परंपरा आहे तर लोकसाहित्य आहे जनसमुदायातून निर्माण झालेली मौखिक साहित्य आहे त्यामध्ये आचार विचार होळी परंपरा रितीरिवास झाली रीती या सर्वासोबत होतो लोकांकडून लोकांसाठी केलेली निर्मिती लोकशाही त्यात आपल्याला पाहायला मिळते. ग्रामीण साहित्य हा व्यक्ती मनाचा आविष्कार असतो हे खरेच पण हा आविष्कार करताना त्या व्यक्ती मनाबरोबरच सामूहिकपणे आलेला गावगाडा प्रकट होतो त्या व्यक्ती मनाला गौण स्वरूप प्राप्त होते आणि तो समूह मनाचा आविष्कार होतो हे नाकारता येत नाही त्यामुळे समूहमनाचा आविष्कार करणाऱ्या लोकसाहित्याशी ग्रामीण साहित्याची नाती प्रस्थापित होते

लोकसाहित्यातील लोकसभेची प्रतिबिंब हे कृषिविषयक श्रद्धा असल्याचे दिसून येते मराठी साहित्यात ग्रामीण कथाकारांनी आपल्या साहित्यामधून हे कृषिविषयक पिंड धर्म दाखवलेले आहे रवा दिघे यांनी आई आहे शेतात या क* आईला आईची उपमा दिलेली आहे शेत ही आपली काळी पांढरी आई आहे आणि शेत स्वतः शेतकरी असल्यामुळे कादंबऱ्यांमध्ये शेतकऱ्याचे आपले कृषी विषयक पिंड धर्म त्यांनी थांबलेला आहे व्यंकटेश माडुळकरांनी बनगरवाडी यात वाडीचा बनगर समाज प्रतिबिंब चित्रित केलेले आहे दुष्काळात शेतकऱ्याची हत बल होणे त्याची मेंढरे

घरे - दारे खाणे -पिणे स्वभाव तिथले वातावरण निसर्ग माडगूळरांनी ग्रामीण साहित्यातून मांडलेला आहे .संत तुकारामांनी कुणबी धर्माचा पुरस्कार केला होता झाकूनिया मढे करावी पेरणी असे त्यांनी आपल्यात अभंगात म्हटलेले आहे हे देखील अधिक प्रेरणा लोकसाहित्यातून दिसून येते.

लोकसाहित्यात आपल्याला अनेक प्रथा परंपरा पाहायला मिळतात त्या ग्रामीण जीवनात देखील आजही दिसताना आहे गर्ल ठोकळे यांनी गावगुंड नावाचे साहित्यप्रकार लिहिला त्यात पायाळू माणसाने पाय लावला की चमक थांबते असा समज आहे मंत्राने सरपंच देऊ शकतो आजही देवीचा कोप ,कौल लावणे या गोष्टी आजही ग्रामीण भागात दिसून येतात त्या लोकपरंपरा आहे किर्तन भजन परंपरा माझी ग्रामीण भागात दिसते विठ्ठलाचा सामूहिक जयघोष केला जातो आई उदे ग अंबे हा देखील एक सामूहिक लोक अविष्कार दिसून येतो.

विविध देवतांच्या यात्रा उरूस उत्सव यामधून हे अशाच सामूहिक लोक अविष्काराचे दर्शन घडते हा लोक अविष्कार करताना मानवी मनामध्ये श्रद्धेचा मोठा व्यापक असा भाग कार्यरत असतो त्याच्यामागे धार्मिक अधिष्ठान

सात जन्म पाप केलं ,आलो कुणव्याच्या पोटी,

कोण पळवून येतो आमची भाजलेली रोटी.

इंद्रिजत भालेरावांनी कुणव्यांची खंत व्यक्त करण्याबरोबरच लोक माणसात कायम जिवंत असणारा आशावाद लोक विश्वास व्यक्त करण्यासाठी लोकलयीचा

आंबा पिकतो..... रस गळतो कोकणचा राजा झिम्मा खेळतो

या कवितेतून लोकगीतातील लयीचे वेगवेगळे पण दिसून येते.

ग्रामीण साहित्यानेच लोकमान्याला केंद्रस्थानी ठेवून आपले स्थान आणि अस्तित्व निर्माण केलेले आहे कारण लोकसाहित्य आणि ग्रामीण साहित्यातील मूलभूत भेद म्हणजे काळाच आहे लोकसाहित्य ते आदी काळापासून चालत आलेला व मौखिक परंपरेने एका पिढीकडून दुसऱ्या पिढीकडे संक्रमित झालेला वांग्मयीन

असते त्यामुळे लोक श्रद्धेने सामील होतात लोकसमूहाची श्रद्धा लोक अविष्कार व त्याचे ग्रामीण साहित्य स्वरूप दिसून येते. लोकसाहित्यातून लोकमानस प्रकट होते तर ग्रामीण साहित्यातून लोकमानसच प्रकट होताना दिसते लोकसाहित्यात म्हणी वाक्प्रचार कोडी उखाणे हे येत असतात तर ग्रामीण साहित्यात देखील म्हणी वाक्प्रचार जानिवपूर्वक प्रकटन दिसतात त्यावर भाषेचे विचारांचे संस्कार करून आधुनिकतेच्या अंगाने त्याची मांडणी होताना दिसते. लोकसाहित्य आणि ग्रामीण साहित्य यांचे नाते घनिष्ठ असल्याचे जाणवते कारण ग्रामीण माणूस हा निसर्ग सन्मुख असल्याने त्याचे जगणे वागणे हे निसर्गाशी बांधील असते माणसाच्या मनात निसर्गा विषयी सतत भीती असते काही रुढी परंपरा विधीचे पालन किंवा विधी आचरण झाल्यास निसर्ग कोपाने काहीतरी ओढवण्याची भीती ग्रामीण भागात माणूस बागळून असल्याचे आपल्याला पाहायला मिळते त्यातून चालीरिती समजूती दैवत यांचे पालन होताना दिसते.

लोकसाहित्य ग्रामीण भागात दिसून येते लोकसाहित्याची भाषा लोक भाषाच असते म्हणजेच बोली असते मग त्यातील परंपरा दिसून येतात लोकसाहित्य म्हणजे अक्षर वाङ्मयाचे सुंदर लेणी लिखित आणि मौखिक बोलीभाषांचा वांग्मयीन मूल्याच्या दृष्टीने विचार केला तर लोकसाहित्यातील बोरीचे मूल्य इतर कोणत्याही साहित्याच्या मूल्यापेक्षा कमी प्रतीचे नाहीत . लोकमानसात जिवंत असणारा आशीर्वाद लोकविश्वास व्यक्त करण्याची किमया ग्रामीण कविते देखील आपल्याला पाहायला मिळते आयुष्याची सुखदुःख पौराणिक कथांमध्ये कवितांमध्ये आपल्याला पाहायला मिळते. कवी आनंद यादव कवी इंद्रजीत भालेराव कवी.ना.धो महानोर यांच्या कवितांमधून ग्रामीण जीवनाच्या व्यथा वेदना लोकसाहित्याच्या अंगाने आपल्याला पाहायला मिळतात.

प्रभावी वापर केल्यामुळे ही ग्रामीण कविता अधिक श्राव्य बनलेली आहे.

प्रवाह आहे तर ग्रामीण साहित्याला ग्रामीण साहित्य ही नामभिथाण आधुनिक काळाची देणगी आहे .

लोकसाहित्य लोक मागण्याच्या माध्यमातून विविध घटकांची नाते गावाशी गावाच्या मातीशी आणि आपल्या भाव विश्वासी घट्ट जोडण्याचा प्रयत्न लोकसाहित्यातून होतो लोक वाङ्मयाच्या गाभाऱ्यातील लोकसंस्कृतीचे धन आजही आबादित आहे पुढच्या पिढीकडे सुपूर्द करून अधिकाधिक समृद्ध करण्याची कामे अनेक

कवी लेखक आजही आपल्याला करताना दिसतात. लोकमत वाङ्मयाच्या आधारेने संस्कार संस्कृती जतन संवर्धन होईलच पण त्याचबरोबर आजच्या ग्रामीण साहित्याला अधिक समृद्ध करण्याचे काम हे लोक साहित्य निश्चित करत असेल. मौखिक परंपरांनी संक्रमित होणाऱ्या लोक वाङ्मयाचा ठेवा भविष्यातही आबाधित ठेवण्यासाठी त्याचे सर्वांगीण संकलन ,संपादन, समीक्षण होणे ग्रामीण साहित्य प्रवाहाला उपकारक होऊ शकते यात शंका नाही.

संदर्भ सूची:

१. दुर्गा भागवत -.लोकसाहित्याची रूपरेषा, वर्धा बुक मुंबई, द्वितीय आवृत्ती.
२. प्रभाकर मांडे लोकसाहित्याचे स्वरूप, परिमल औरंगाबाद ,
३. आनंद यादव ग्रामीण साहित्य स्वरूप व समस्या
४. रवींद्र ठाकूर मराठी ग्रामीण कादंबरी, पुणे.
५. इंद्रजीत भालेराव दूर राहिला गाव बी रघुनाथ प्रकाशन परभणी.
६. इंद्रजीत भालेराव पिक पाणी ,पेरा, मेहता पब्लिक हाऊस पुणे.
७. आनंद यादव, मायलेकर पुणे
८. पगार सयाजी निंबाजी : खानदेशातील ग्रामदैवत आणि लोकगीते धुळे



महाराष्ट्रातील कृषी विद्यापीठ ग्रंथालयांची संकेतस्थळे : एक अभ्यास

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सार :

सदरील संशोधन लेखाचा उद्देश महाराष्ट्रातील कृषी विद्यापिठांच्या ग्रंथालयांची संकेतस्थळावरील उपलब्ध साहित्याचा शोध घेणे आहे. या संकेतस्थळावर उपभोक्त्यांसाठी म्हणजे विद्यापीठामध्ये शिक्षण घेणाऱ्या विद्यार्थ्यांसाठी कोणकोणत्या प्रकारचे वाचन साहित्य उपलब्ध आहे याची माहिती मिळवणे आहे. महाराष्ट्रातील चार कृषी विद्यापिठांच्या ग्रंथालयांच्या संकेतस्थळा बाबतीत एक समानता दिसून येत नाही. प्रत्येक विद्यापीठाची ग्रंथालय वेबसाईट हि वेगवेगळ्या पद्धतीची दिसून येते. या चार विद्यापीठांपैकी परभणी कृषी विद्यापीठ ग्रंथालयाच्या संकेत स्थळावर फार्मर्स कॉर्नर हा विभाग देण्यात आला असून त्यात शेती भाती हे शेतकरी वर्गासाठी मासिक देण्यात आले आहे. या प्रमाणेच या चार विद्यापीठ ग्रंथालय संकेत स्थळांची माहितीचा अभ्यास या लेखात करण्यात आला आहे.

शोधसंज्ञा : ग्रंथसंग्रह, ग्रंथालयाची वेळ, ग्रंथालयीन सेवा, ग्रंथालयीन ई सेवा, डॉ. बाळासाहेब सावंत कोकण कृषी विद्यापीठ, दापोली जि. रत्नागिरी, डॉ. पंजाबराव देशमुख कृषी विद्यापीठ, अकोला, महात्मा फुले कृषी विद्यापीठ, अकोला आणि वसंतराव नाईक मराठवाडा कृषी विद्यापीठ, परभणी.

प्रस्तावना :

आजच्या माहिती तंत्रज्ञानाच्या काळात संकेतस्थळे पाहिली जातात. प्रभावी कार्यक्षम आणि उपयुक्त जाहिरातीचे साधन म्हणून वेबसाईट चा आधार घेतला जातो. जगातील कोणत्याही कानाकोपऱ्यात काही सेकंदामध्ये माहितीचा प्रसार करण्याचे एक उत्तम माध्यम म्हणजे संकेतस्थळ होय.

ग्रंथालये ही विपणनाचे साधन म्हणून ते त्यांची वेबसाईट विकसित करतात. या ग्रंथालयाची सदस्यता घेणे, सेवांचा उपभोग घेणे, त्यांचे नियम पाळणे आणि वेबसाईट वर उपलब्ध साधन सामुग्री चा उपयोग करणे यासाठी हि ग्रंथालये अद्यावत व अचूक माहिती आपल्या वेबसाईटवर देतात. ग्रंथालय, कर्मचारी आणि वापरकर्त्यांची त्रिमूर्ती म्हणजेच माहिती, माहिती देणारा आणि माहिती वापरकर्ता या त्रिमूर्तीच्या माध्यमातून आजच्या डिजिटल युगात ग्रंथालयाचे कार्य चालते.

कृषी विद्यापीठे हि कृषी संशोधन आणि राष्ट्रीय कृषी संशोधन शिक्षण प्रणाली यांच्या वाढ आणि विकासात खूप मोलाची भूमिका बजावतात. महाराष्ट्रामध्ये चार कृषी विद्यापीठे आहेत. या चारही कृषी विद्यापीठ ग्रंथालयांची स्वतंत्र वेबसाईट नसून विद्यापिठाच्या संकेतस्थळावर ग्रंथालयाची लिंक देण्यात आली असून त्याद्वारे ग्रंथालयाची माहिती प्राप्त करता येते.

उद्दिष्टे :

१. ग्रंथालय संकेतस्थळाच्या सामग्रीचे विश्लेषण करणे.
२. ग्रंथालयातून दिल्या जाणाऱ्या सेवा आणि सुविधांचा आढावा घेणे.
३. ग्रंथालय संकेतस्थळावर उपलब्ध असणारी माहिती अद्यावत आहे का नाही याचा शोध घेणे.

गृहीतके :

१. विविध प्रकारच्या सेवा आणि सुविधा चारही कृषी विद्यापीठ ग्रंथालयातून दिल्या जातात.
२. ग्रंथालय संकेतस्थळावर उपलब्ध असणारी माहिती अद्यावत आहे.

संकेतस्थळ व्याख्या :

संकेतस्थळ हे अनेक पृष्ठांचा एकत्रित संग्रह असून जो world wide web शी जोडला असून तो एका व्यक्ती किंवा एखाद्या संस्थेकडून त्यास नियंत्रित केले जाते. यात एखाद्या संस्थेसंबंधी थोडक्यात किंवा विस्तृत स्वरूपात माहिती उपलब्ध करून दिली जाते.

“A place connected to the Internet, where a company, organization, etc. Puts information that can be found on the World Wide Web.”

“All publicly accessible websites collectively constitute the [World Wide Web](http://www.ijaar.co.in). There are also private websites that can only be accessed

on a [private network](#), such as a company's internal website for its employees.”

संशोधन पद्धती :

या चार विद्यापीठ ग्रंथालय संकेतस्थळाबद्दलची माहिती संकलित करण्यासाठी एक यादी तयार करण्यात आली व त्याद्वारे सेवा, सुविधा, ग्रंथसंग्रह यांचा आढावा घेण्यात आला आहे. यात दापोली आणि राहुरी, अकोला, विद्यापीठांच्या चार या परभणी संकेतस्थळांचे मुख्यमापन करण्यात आले आहे त्यांच्या खालीलप्रमाणे. संकेतस्थळांची लिंक देण्यात आली आहे.

1. <https://dbskkv.org/Library.html>
2. <http://pdkvopac.firststray.in/>
3. <https://mpkv.ac.in/Library/About>
4. <https://www.vnmkv.ac.in/library.html>

कृषी विद्यापीठ संकेतस्थळावरील सर्वसाधारण माहिती :

चार कृषी विद्यापीठांच्या संकेतस्थळावरील उपलब्ध असलेल्या माहितीचे विश्लेषण हे सारणी द्वारे विश्लेषित करण्यात आले असून उद्दिष्टांना अनुसरून माहितीचे संकलित करून विश्लेषण करण्यात आले आहे.

सारणी क्र. १

ग्रंथालय संकेतस्थळावरील सर्वसाधारण माहिती

तपशील	दापोली	अकोला	राहुरी	परभणी
ग्रंथालयाची माहिती	होय	होय	होय	होय
ग्रंथालयाचे नियम	होय	नाही	नाही	होय
ग्रंथालयाची वेळ	होय	नाही	होय	होय
सभासदत्व	होय	नाही	होय	नाही
ग्रंथपाल	होय	नाही	नाही	होय
ग्रंथालयातील इतर कर्मचारी	नाही	नाही	नाही	होय
ग्रंथालयातील विभाग	होय	होय	होय	होय
संशोधन सद्यस्थिती	नाही	होय	नाही	नाही
संपर्क	होय	होय	होय	होय

वरील माहितीवरून असे दिसून येते कि, ग्रंथालयाच्या नियमा बद्दलची माहिती अकोला आणि राहुरी कृषी विद्यापीठ ग्रंथालयाच्या संकेत स्थळावर देण्यात आलेली नाही. त्याचप्रमाणे ग्रंथालयाच्या वेळेबद्दल अकोला विद्यापीठ ग्रंथालयाच्या संकेत स्थळावर माहिती देण्यात आलेली नाही. तसेच सभासदत्व बाबतीत अकोला आणि परभणी विद्यापीठांनी माहिती प्रदर्शित केली नाही.

ग्रंथालयातील इतर कर्मचारी यांची माहिती फक्त परभणी विद्यापीठ ग्रंथालयाने दिलेली आहे. तर संशोधनाच्या सद्यस्थिती बद्दलची माहिती हि अकोला विद्यापीठाने दिलेली दिसून येते. सर्वच विद्यापीठ ग्रंथालयांनी संपर्काचा पत्ता आणि संपर्क क्रमांक दिलेला आहे.

सारणी क्र. २

ग्रंथालयातील ग्रंथसंग्रहाबद्दलची माहिती

तपशील	दापोली	अकोला	राहुरी	परभणी
ग्रंथ	होय	होय	होय	होय
नियतकालिके	होय	होय	होय	होय
संदर्भ ग्रंथ	होय	होय	होय	होय
अहवाल / प्रबंध	होय	होय	होय	होय
नियतकालिकांचे बांधीव खंड	होय	होय	होय	होय

ग्रंथालयातील ग्रंथसंग्रहात सर्व प्रकारच्या वाचन साहित्याचा समावेश होतो. ज्यात भौतिक स्वरूपातील आणि डिजिटल स्वरूपातील वाचन संग्रहाचा समावेश होतो. सदरील अभ्यासाद्वारे चारही विद्यापीठातील उपलब्ध वाचनसाहित्य संग्रहाचा आढावा घेण्यात आला

आहे. सारणी क्रमांक २ वरून असे लक्षात येते कि, महाराष्ट्रातील चारही विद्यापीठ ग्रंथालयांच्या संकेत स्थळावर ग्रंथ, नियतकालिके, संदर्भ ग्रंथ, अहवाल / प्रबंध आणि नियतकालिकांचे बांधीव खंड या बद्दलची माहिती देण्यात आली आहे.

सारणी क्र. ३
ग्रंथालयातून दिल्या जाणाऱ्या सेवा आणि सुविधा

तपशील	दापोली	अकोला	राहुरी	परभणी
सी.डी. / डी.व्ही.डी.	होय	होय	होय	होय
OPAC / Web OPAC	होय	होय	होय	होय
अंतर ग्रंथालयीन सेवा	होय	होय	होय	होय
संदर्भ सेवा	होय	होय	होय	होय
डिजिटल ग्रंथालय	होय	होय	होय	होय
सार / ग्रंथसूची सेवा	होय	होय	होय	होय
प्रचलित जागरूकता सेवा	होय	होय	होय	होय
वाय फाय सुविधा	होय	नाही	होय	होय
वाचन कक्ष	होय	होय	होय	होय
सी सी टी व्ही	होय	होय	होय	होय
प्रलेख प्रदान सेवा	होय	होय	नाही	होय
कृषी स्पर्धा परीक्षा विभाग	होय	नाही	नाही	नाही
आर एफ आय डी सुविधा	होय	नाही	नाही	नाही
अद्ययावतपणा	होय	होय	होय	होय

ग्रंथालय सेवा आणि सुविधा हि संबंधित ग्रंथालयाद्वारे आपल्या उपभोक्त्यांना उपलब्ध करून दिले जाते. ज्याद्वारे वाचकांना ग्रंथालयात असलेल्या संसाधनाचा सहजपणे लाभ घेता येतो. वरील सारणी क्रमांक ३ मध्ये महाराष्ट्रातील चारही कृषी विद्यापीठ ग्रंथालयात असणाऱ्या सेवा आणि सुविधा यांच्याबद्दलची माहिती विश्लेषित करण्यात आली आहे. यात सी.डी. / डी.व्ही.डी., OPAC / Web OPAC, अंतर ग्रंथालयीन सेवा, संदर्भ सेवा, डिजिटल ग्रंथालय, सार / ग्रंथसूची सेवा, प्रचलित जागरूकता सेवा, वाचन कक्ष आणि सी सी टी व्ही या सेवा आणि सुविधा या महाराष्ट्रातील चारही कृषी विद्यापीठ ग्रंथालयात उपलब्ध आहेत.

तर कृषी स्पर्धा परीक्षा विभाग आणि आर एफ आय डी या सुविधा फक्त दापोली येथील विद्यापीठ ग्रंथालयातून दिली जाते. तर प्रलेख प्रदान हि सेवा दापोली, अकोला आणि परभणी विद्यापीठ ग्रंथालयातून दिली जात असल्याचे आढळून येते. वाय फाय हि सुविधा फक्त अकोला विद्यापीठ ग्रंथालयातून दिली जात नाही.

निष्कर्ष :

१. ग्रंथालयाबाद्दलची माहिती सर्वच विद्यापीठ ग्रंथालयाच्या संकेत स्थळावर देण्यात आलेली आहे.
२. ग्रंथालयातील विविध विभाग आणि ग्रंथालय संपर्काची माहिती संकेत स्थळावर देण्यात आलेली आहे.

३. ग्रंथालयाबाद्दलची माहिती फक्त दापोली आणि परभणी विद्यापीठ ग्रंथालयांनी दिली आहे.
४. महाराष्ट्रातील चारही विद्यापीठ ग्रंथालयांच्या संकेत स्थळावर ग्रंथ, नियतकालिके, संदर्भ ग्रंथ, अहवाल / प्रबंध आणि नियतकालिकांचे बांधीव खंड या बद्दलची माहिती देण्यात आलेली आहे.
५. कृषी स्पर्धा परीक्षा विभाग आणि आर एफ आय डी या सुविधा फक्त दापोली येथील विद्यापीठ ग्रंथालयातून दिली जाते.
६. प्रलेख प्रदान हि सेवा दापोली, अकोला आणि परभणी विद्यापीठ ग्रंथालयातून दिली जाते.
७. वाय फाय हि सुविधा फक्त अकोला विद्यापीठ ग्रंथालयातून दिली जात नाही.

गृहीतक पडताळणी :

१. विविध प्रकारच्या सेवा आणि सुविधा चारही कृषी विद्यापीठ ग्रंथालयातून दिल्या जातात. हे गृहीतक सत्य असून ते सारणी क्रमांक १ वरून सिद्ध होते.
२. ग्रंथालय संकेतस्थळावर उपलब्ध असणारी माहिती अद्ययावत आहे. हे गृहीतक सत्य असून ते सारणी क्रमांक ३ वरून सिद्ध होते.

शिफारशी :

१. सर्वच विद्यापीठ ग्रंथालयांनी स्वतंत्र ग्रंथालयाची वेबसाईट विकसित करावी.

२. अकोला, राहुरी आणि परभणी कृषी विद्यापीठ ग्रंथालयांनी कृषी स्पर्धा परीक्षा विभाग स्थापन करावा
३. अकोला कृषी विद्यापीठ ग्रंथालयाने आपल्या वाचकांसाठी वाय फाय हि सुविधा प्रदान करावी.
४. दापोली, अकोला आणि राहुरी या विद्यापीठ ग्रंथालयांनी आपल्या ग्रंथालयातील इतर कर्मचाऱ्यांची माहिती वेबसाईटवर अपलोड करावी.

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बौद्धिक संपदा अधिकार

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सारांश :

21 वे शतक हे ज्ञान आधारित प्रगतीचे युग आहे. आज प्रत्येक क्षेत्रात डेटा माहिती ज्ञानाचा बोलबाला आहे. आज कृषी उद्योग व्यापार राजकारण समाजकारण प्रशासन माहितीच्या आधारावर प्रगती करीत आहे. आजचे युगे संशोधनाचे आणि नाविन्याचे आहे. प्रत्येक उत्पाद अधिकाधिक अविष्कारयुक्त आणि ग्राहकाभिमुख बनवण्यावर उद्योग जगताचा भर आहे. संशोधक कर्त्याने त्याचा नवप्रवर्तनाची शासकीय पातळीवर केलेली नोंद म्हणजे बौद्धिक संपदा हक्क. भारतातील बौद्धिक संपदा हक्क कायदा 1856 मध्ये अस्तित्वात आला. जास्त 14 वर्षांसाठी हे प्रदान केलेले गेले सध्या अस्तित्वात असलेला कायदा 2005 मध्ये अस्तित्वात आला. तत्पूर्वी त्यात 1859, 1872, 1883, 1888, 1991, 1999 आणि 2002 मध्ये बदल नवीन कलमे वाढविणे अद्यावत करण्यात आला.

प्रस्तावना :

भारताने स्वातंत्र्यानंतर १९४८ साली टेकचंद समिती, 1957 मध्ये अय्यंगार समिती 1965 व 1967 मध्ये संयुक्त संसदी समिती मार्फत पेटंट प्रश्नाचा सखोल अभ्यास करून सन 1970 मध्ये भारतीय पेटंट कायदा तयार केला होता. त्या 1970 च्या कायद्यामध्ये बदल करून 2005 मध्ये नवीन पेटंट कायदा तयार करण्यात आला. जो पाच मे 2006 पासून सुधारित कायदा म्हणून प्रभावित आहे.

उद्देश :

बौद्धिक संपदा अधिकाराविषयी अभ्यास करणे “मनुष्याची बौद्धिक गुणवत्ता आणि परिश्रम तसेच व्यक्तीच्या सर्जन क्षमतेमुळे त्या व्यक्तीस जी संपत्ती प्राप्त होते ती बौद्धिक संपदा होय ”

बौद्धिक संपदा महत्वाची असून तिच्या अधिकाराचे रक्षण करणे तितकेच महत्वाचे आहे. जागतिक बौद्धिक संपत्ती संघटना आणि जागतिक व्यापार संघटना याच्या प्रयत्नातून विविध बौद्धिक संपदा अधिकार कायदे अस्तित्वात आले.

1. स्वामित्व अधिकार (पेटंट)
 2. व्यापारचिन्हे (ट्रेडमार्क)
 3. व्यापार नामे (ट्रेड नेम)
 4. प्रकाशन अधिकार (कॉपीराईट)
- इत्यादी कार्यरत आहेत.

बौद्धिक संपदा हक्क कायदा अल्प विकसित देशात संबंध झाल्यामुळे देशाच्या संशोधन आणि विकास विभागात गुंतवणूक वाढवून लोकांचा स्वामित्व अधिकार सहकार करार हा बहुउद्देशीय करार 1978 (द पेटंट कॉर्पोरेशन ट्रीटी इज मल्टीलॅट्रल ट्रीटी 1978) मध्ये अस्तित्वात आला. यामुळे सभासद देशाला स्वतःच्या संशोधनाबद्दल अग्रहक्क मिळतो. जागतिक बौद्धिक संपदा संघटना स्टॉक होम येथे 1970 मध्ये अस्तित्वात आली, सर्व देशाच्या सहकाराने बौद्धिक संपदा कायद्याचे पालन करणे नवनवीन करार प्रस्थापित करणे त्यातून सभासद देशांचा आर्थिक, सामाजिक, सांस्कृतिक, विकास साधने ही उद्दिष्टे आहे. विप्रो व डब्ल्यूटीओ यांच्यात 1996 मध्ये एकात्मतेचा करार केला गेला.

स्वामित्व अधिकार सहकार करार 2002 मध्ये संबंध झाल्याने अल्प विकसित देशांना त्याचा विशेष फायदा झाला. उदा. कृषी स्वामित्व अधिकार कराराने कृषीमालाच्या निर्यातीस आळा बसून कृषी मालावर देशांतर्गत प्रक्रिया करून कृषी मालाचे अंतिम उत्पादनात रूपांतर होऊ लागले. औद्योगिक क्षेत्रात संदर्भात डिझाईन कायदा 1911, प्रकाशन अधिकार, व्यापारचिन्हे 1958, स्वामित्व अधिकार 1957, 1970 व्यापारनामे इत्यादी कायदे आहेत. एक जानेवारी 1995 रोजी डब्ल्यूटीओ (WTO) ची स्थापना होऊन भारताने या करारावर सही करून GAAT स्वीकार केलेला आहे. या करारात मुक्त अर्थव्यवस्थेचा स्वीकार करण्यात आला आहे. त्याचाच एक

भाग म्हणून बौद्धिक संपदा अधिकाराचा समावेश डब्ल्यूटीओ (WTO) करारात करण्यात आलेला आहे.

आपल्या देशाने पिकांच्या नवीन वाहनांचे संरक्षण संघ अंतर्गत स्वयंनिर्मित कायदा पद्धतीचा स्वीकार केला आहे. पीक पैदास कार व शेतकरी यांच्यासाठी पिक वाण संरक्षण आणि 'शेतकरी हक्क कायदा 2001' विशिष्ट भागात येणारे किंवा तयार होणारे उत्पादन किंवा पदार्थ हा एखाद्या विशिष्ट भागाचे प्रतिनिधी व करीत असेल तर त्यास बौद्धिक संपदेचे विशिष्ट मानांकन दिले जाते. त्यास भौगोलिक मानांकन (GI) असे म्हणतात. उदा. मधुबनी पेंटिंग, कोकण हापूस, महाबळेश्वर स्ट्रॉबेरी, दार्जिलिंग चहा, जळगाव केळी, पैठणी साडी, काश्मिरी पश्मीना शाल, कोल्हापुरी चप्पल यात विशिष्ट भागात येणाऱ्या कृषी उत्पादनाचाही समावेश होतो. विश्व बौद्धिक संपदा नुसार आंतरराष्ट्रीय पेटंट नावावर करून घेण्यात चीनचा क्रमांक 2014 मध्ये तिसरा होता. गेल्या काही वर्षात भारताचा पेटंट करण्याचा वाटा 18% वरून 23% टक्के पर्यंत उंचावला आहे. भारतात संयुक्त नियंत्रक/उपनियंत्रक बौद्धिक संपदा हक्क आणि रचना त्याची चार कार्यालय अस्तित्वात असून ती दिल्ली, मुंबई, चेन्नई आणि कोलकत्ता येथे आहे.

कॉपीराईट कायदा 1957 कॉपीराईट कायदा

1. ट्रेड मार्क्स ॲक्ट 1999 ट्रेडमार्क
2. पेटंट कायदा 1970 पेटंट कायदा
3. डिझाईन कायदा 2000 डिझाईन कायदा
4. वस्तूचे भौगोलिक (नोंदणी आणि संरक्षण कायदा 1999) (GI)
5. वनस्पती जातींचे संरक्षण आणि शेतकरी हक्क कायदा 2001
6. सेमी कंडक्टर इंटीग्रेटेड सर्किट लेआउट डिझाईन कायदा

भारत जागतिक व्यापार संघटनेच्या बौद्धिक संपत्तीचा व्यापार संबंधित पैलू कराराचा सदस्य असल्याने देश बुडापेस्ट करार, पॅरिस कन्व्हेंशन, बर्न कन्व्हेंशन, पेटंट ऑपरेशन ट्रीटी, माद्रिद प्रोटोकॉल आणि माराकेश करारासह आयपीआरशी संबंधित WIPO प्रशासित आंतरराष्ट्रीय करार आणि अधिवेशनांमध्ये सहभागी आहे.

बौद्धिक संपदा साक्षरता आणि जागृता वाढवण्याच्या दृष्टीने माजी राष्ट्रपती डॉ. ए.पी.जे अब्दुल कलाम यांच्या 89 व्या जयंतीनिमित्त 15 ऑक्टोबर 2020 रोजी सुरू करण्यात आलेली 'KAPILA' मोहीम. जागतिक बौद्धिक संपदा दिवस दरवर्षी 26 एप्रिल रोजी केला जातो हा दिवस जागृता वाढवण्यासाठी आणि नवकल्पना आणि सर्जनशीलतेला प्रोत्साहन देण्यासाठी बौद्धिक संपदा (IP) चे महत्व साजरी करण्यासाठी नियुक्त केला आहे. पहिला जागतिक बौद्धिक संपदा दिवस 2001 मध्ये आयोजित

करण्यात आला होता 2000 मध्ये (WIPO) च्या सदस्य देशांनी औपचारिकपणे 26 एप्रिल ज्या दिवशी (WIPO) अधिवेशन 1970 मध्ये अस्तित्वात आले.

निष्कर्ष :

वरील अभ्यावरून असे दिसून येते की भारतात बौद्धिक संपदा अधिकाराविषयी जाणीव आणि जागृती निर्माण झालेली दिसून येते.

संदर्भसूची :

1. शैलेजा देसाई 30/12/2022 मराठी विश्वकोश, ऑर्गनाईज 27/3/2024 – 8:10 मी.
2. www.Marathiindiatimes.com
3. डॉ.अंबालिका चौधरी व सजरराव नाईक डॉ. हिराकांत काळपांडे, डॉ. पुरुषोत्तम देशमुख - जाणून घेऊ बौद्धिक संपदा अधिकार, मराठवाडा कृषी विद्यापीठ परभणी 20/1/2024 - 27/3/2024 www.esakal.com
4. बौद्धिक संपदा अधिकार औषधी आणि कृषी 9 ऑगस्ट 2021 www.papersssrn.com 27/03/2024 – 10:15 pm बौद्धिक संपदा अधिकार आयपीआर फायदे आणि तोटे जिल्हा न्यायालय भरतीसाठी साहित्य अभ्यास.
5. जागतिक बौद्धिक संपदा संघटना, विकिपीडिया 28/3/2024 8:35 pm
6. बौद्धिक संपदा हक्क आणि नवप्रवर्तन 30/06/2022 – 28/03/2024 www.esakal.com – 9:47am



महिला सशक्तिकरण एवं गरीबी उन्मूलन में जीविका की भूमिका

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सार:

समुदाय आधारित संगठन के माध्यम से निम्न आर्थिक क्षेत्र में गरीबी को दूर करने एवं महिला सशक्तिकरण के लिए व्यापक स्तर पर बहु-क्षेत्रीय उपागम अपनाया जाता है। इसी उद्देश्य से बिहार सरकार, ग्रामीण विकास विभाग के अंतर्गत एक स्वायत्त निकाय 'बिहार रूरल लाइवलीहुड प्रमोशन सोसाइटी' (BRLPS) के माध्यम से, विश्व बैंक की सहायता से 'बिहार रूरल लाइवलीहुड प्रोजेक्ट' (BRLP) का क्रियान्वयन कर रही है; जिसे स्थानीय रूप में 'जीविका' कहते हैं। प्रस्तुत अध्ययन में कथा संश्लेषण विधि का प्रयोग किया गया है, जो द्वितीयक स्रोत 2006-07 से 2022-23 तक BRLP और विश्व बैंक से प्रकाशित साहित्य, लेख, ऑडिट और वार्षिक रिपोर्ट पर आधारित है। इस संश्लेषण के आधार पर उन तथ्यों को खोजने का प्रयास किया गया है जिसके माध्यम से जीविका महिलाओं के आर्थिक और सामाजिक सशक्तिकरण एवं ग्रामीण विकास में महत्वपूर्ण भूमिका निभाती है। तथा, जीविका के तीनों हस्तक्षेपों यानी कृषि हस्तक्षेप, पशुधन हस्तक्षेप और गैर-कृषि हस्तक्षेप का भी मूल्यांकन किया गया है। अध्ययन के निष्कर्ष से पता चलता है कि जीविका सामाजिक एवं आर्थिक रूप से हाशिए पर रहने वाले परिवारों की महिलाओं को स्वयं सहायता समूह (SHG) के माध्यम से संगठित कर स्व-बचत, स्व-वित्त, सूक्ष्म वित्त और तकनीकी सहायता प्रदान कर महिलाओं को एक साथ आने तथा उसके सामने आने वाले सामाजिक-आर्थिक समस्याओं के निराकरण के लिए एक मंच प्रदान करती है। इस कार्यक्रम के प्राथमिक उद्देश्य को पूरा करने के लिए महिलाओं को उच्च व्याज दर वाले अनौपचारिक ऋण की तुलना में संस्थागत बैंकिंग सुविधा से जोड़कर वित्तीय समावेशन किया गया है। आजीविका गतिविधियों, बाजार संपर्क, शिक्षा, स्वास्थ्य और बाढ़ नियंत्रण एवं अन्य सामाजिक आर्थिक मुद्दों को जोड़कर दीर्घकालीन उद्देश्य की ओर अग्रसर है। हालांकि आंकड़ों की अनुपलब्धता के कारण महिला सशक्तिकरण और गरीबी उन्मूलन में जीविका कार्यक्रम की भूमिका पर अनुदैर्घ्य अनुभवजनित अध्ययन भी कठिन है।

Keyword: JEEViKA, BRLPS, BRLP, SHG, सूक्ष्म वित्त, वित्तीय समावेशन

प्रस्तावना:

भारत का 64.84% जनसंख्या ग्रामीण क्षेत्र में निवास करती है (Census-2011)। बिहार देश के तीसरे सबसे अधिक जनसंख्या वाला राज्य है जिसकी 89% जनसंख्या ग्रामीण क्षेत्र में निवास करती है (Census, 2021) एवं भारत के सबसे गरीब राज्यों में से एक है जिसकी रैंकिंग विभिन्न विकासात्मक मानकों पर काफी पिछड़ा है (Niti Aayog-2021)। समस्त पिछड़ापन को दूर करने के लिए, समुदाय आधारित संगठन के माध्यम से व्यापक स्तर पर बहुक्षेत्रीय उपागम को अपनाया जाता है। बिहार सरकार ने भी निम्न आर्थिक क्षेत्र में गरीबी को

दूर करने एवं महिला सशक्तिकरण के लिए व्यापक स्तर पर विश्व बैंक की सहायता से ग्रामीण विकास विभाग के अंतर्गत एक स्वायत्त निकाय बिहार लाइवलीहुड प्रमोशन सोसाइटी (BRLPS) के माध्यम से, बिहार रूरल लाइवलीहुड प्रोजेक्ट (BRLP) का क्रियान्वयन कर रही है, जिसे स्थानीय रूप में जीविका कहते हैं।

2006 से जीविका बिहार में एक छोटे पैमाने की परियोजना से राज्यव्यापी आंदोलन में बदल गई, जिसने 1.27 करोड़ से अधिक परिवारों को प्रभावित किया। वर्ष 2011 से जीविका राष्ट्रीय ग्रामीण आजीविका मिशन (NRLM) के क्रियान्वयन के लिए एक नोडल एजेंसी के

रूप में कार्य करते हुए चरण I यानी 10 वर्षों को सफलतापूर्वक पूरा कर लिया तथा इसकी अवधि मार्च 2026 तक बढ़ा दी गई। इस प्रकार, जीविका NRLM के चार स्तंभों:- सामाजिक गतिशीलता, वित्तीय समावेशन, टिकाऊ आजीविका, सामाजिक समावेशन, विकास और अभिसरण पर खड़ा है। बिहार सरकार जीविका के माध्यम से गरीबों की आजीविका में वृद्धि कर गरीबी उन्मूलन के लिए प्रतिबद्ध है, साथ ही तेजी से बदलती दुनिया से निपटने के लिए उन्हें क्षमताओं (सूचना, ज्ञान, कौशल, उपकरण, वित्त और सामुहिकता) के साथ पूरक करना चाहता है।

जीविका का उद्देश्य:

BRLP (जीविका) का उद्देश्य ग्रामीण गरीबों के सामाजिक और आर्थिक सशक्तिकरण को बढ़ाना है। इस उद्देश्य को निम्न प्रयासों के माध्यम से पूरा करने का प्रयास किया जा रहा है।

1. ग्रामीण आजीविका में सुधार और ग्रामीण गरीबों के सामाजिक और आर्थिक सशक्तिकरण को बढ़ाना।
2. ग्रामीण गरीबों और ग्रामीण उत्पादकों के संगठनों का विकास करना ताकि उन्हें सार्वजनिक और निजी क्षेत्र की एजेंसियों और वित्तीय संस्थाओं से सेवाओं ऋण एवं परिसंपत्तियों तक पहुँचने और बेहतर बातचीत करने में सक्षम बनाया जा सके।

वर्तमान शोध पत्र में बिहार सरकार के द्वारा चलाये जा रहे BRLP (जीविका) का मूल्यांकन उनके उपरोक्त उद्देश्यों के आधार पर किया गया है। यह बिहार सरकार के प्रकाशित वार्षिक कार्य योजना (Annual Action Plan), वार्षिक रिपोर्ट (Annual Report) एवं विश्व बैंक के तथ्यों पर आधारित है। इस शोधपत्र में खासकर अंतिम के 5 वर्षों में प्रकाशित लेखों एवं आँकड़ों का विश्लेषण 'कथा संश्लेषण विधि' (Narrative Synthesis Method) का द्वारा किया गया है। इस शोध पत्र में जीविका की भूमिका का अवलोकन निम्न तथ्यों के आधार पर किया गया है।

1. सामाजिक समावेशन एवं सशक्तिकरण।
2. गरीबी उन्मूलन एवं वित्तीय समावेशन।
3. कृषि क्षेत्र एवं कृषि संबंधित व्यवसाय।
4. गैर कृषि क्षेत्र।

जीविका SHG को उच्च स्तर के संघों में शामिल करने के साथ ही ग्राम संगठनों (VOs) और कलस्टर स्तर के संघों (CFL) की संतृप्ति पर केन्द्रित है। वर्ष 2021-22 के दौरान कुल 7100 SHG, 3031 VO और 166 CLF का गठन किया गया। कुल मिलाकर मार्च 2022 तक 10.35 लाख SHG, 67624 VO, एवं 1353 CFL का गठन किया गया। संख्यागत शासन को मजबूत करने के लिए CLF एवं TLC (Training and Learning Centre) के लिए पंजीकरण प्रक्रिया शुरू की गई, जिसमें 319 CLF और 13 TLC पंजीकृत किए गए।

Table No-1-No of SHG, VO, & CLF Formation, Bank Account and Credit Linked Status

JEEVIKA YEARWISE REPORTS					
Particulars/FY	2018-19	2019-20	2020-21	2021-22	2022-23
No. of SHGs formation					
Cumulative	848896	948159	1028147	1035183	1046002
Year Wise	58485	99263	79988	7036	10819
No. of VOs formation					
Cumulative	55625	60356	64593	67624	68645
Year Wise	8869	4731	4237	3031	1021
No. of CLFs formation					
Cumulative	925	1048	1187	1353	1453
Year Wise	219	123	139	166	100

No. of SHGs Saving A/C					
Cumulative	745081	836178	934216	950642	969425
Year Wise	131851	91097	98038	16426	18783
No. of SHGs Credit Linked (Includes 1st+2nd+3rd+4th)					
Cumulative	810426	1034922	1211546	1457112	1750952
Year Wise	222810	224496	176624	245566	293840
SHGs Credit Linkage (Amount In Cr.)					
Cumulative	8169	11992	15499	21074	29838
Year Wise	2811	3823	3507	5574	8764

Source: Annual Report JEEViKA

सामाजिक समावेशन एवं सशक्तिकरण:

महिलाएँ समाज का विभिन्न अंग हैं इस वजह से यह आवश्यक है कि सामाजिक गतिविधि में महिला का समावेशन हो अन्यथा विकास के वांछित लक्ष्य को नहीं पाया जा सकता है। जीविका एक सक्रिय बहूआयामी प्रक्रिया है जो सामाजिक, आर्थिक, राजनीतिक एवं व्यक्तिगत स्तर पर महिलाओं को समाज की संपूर्ण गतिविधियों में सहभागी बनाती है एवं प्रशिक्षण, स्वरोजगार, एक्सपोज़र, माइक्रो क्रेडिट, कौशल विकास, स्वाभिमान, स्वावलंबन के माध्यम से महिला न केवल

अपने परिवार में सशक्त हुई, बल्कि ग्राम, जिला एवं राज्य स्तर पर भी महत्वपूर्ण जिम्मेदारियाँ को निभा रही हैं। जब महिलाएं आर्थिक रूप से सशक्त हुई तो उनके सुझावों एवं निर्णय को माना गया जिससे उसकी स्थिति समाज में उच्च हुई। जीविका ने उन्हें उसके नाम से समाज में पहचान दिलाई एवं सामाजिक बंधाएं कम हुई। प्रशिक्षण के पश्चात 65% सदस्यों में आत्मविश्वास बढ़ा, 60% महिला दोस्तों के साथ घुलने-मिलने के आजादी मिली एवं 57.5% के साक्षरता के स्तर में सुधार हुआ (Suman and Jahanara-2022)।

Table No- 2 जीविका प्रशिक्षण के पूर्व एवं पश्चात् जीविका दीदी की स्थिति

	पूर्व	पश्चात्
सामाजिक संगठन में सहभागिता	50%	90%
परिवार में सम्मान	40%	68.33%
मित्रों से घुलने मिलने की आजादी	35%	65%

Source- Suman and Jahanara; AJAEES, 40 (7): 109-114, 2022;

गरीबी उन्मूलन एवं वित्तीय समावेशन:

जीविका परियोजना गरीबी उन्मूलन एवं वित्तीय समावेशन के लिए SHG के रूप में उर्जावान, उत्साही एवं बैंक योग्य महिला सामुदायिक संगठन का निर्माण करती है, जो आपसी बचत, आपसी लेन-देन, बैंक से जुड़ाव (खाता खुलवाने), सुक्ष्म नियोजन (समूह की आर्थिक एवं जीविकोपार्जन संबंधी जरूरतों की पहचान कर योजना

बनाना), आरंभिक पूँजीकरण निधि (CIF), बैंक क्रेडिट लिंकेज (प्रथम किस्त में 1.5 लाख), ससमय ऋण चुकाने, बीमा सुविधा (PMJJBY, PMSBY) एवं वित्तीय जोखिम से अवगत कराने के लिए निरंतर कार्य करती है। सितंबर 2023 तक 10.47 लाख SHG का गठन किया जा चुका है जिसमें 9.69 लाख समूहों का बैंक खाता खुल चुका है। 11000 करोड़ रुपये CIF के रूप में दिया जा चुका है, एवं

9.3 लाख समूहों को बैंक ऋण मिल चुका है, जिसकी कुल राशि 29838.07 करोड़ है। 6.77 लाख समूहों को दूसरी किस्त, 1.17 लाख को तीसरी एवं 0.25 लाख को चौथी किस्त मिल चुका है। 72162 ग्राम संगठनों एवं 1451 संकुल स्तरीय संघों का बैंक खाता खुल चुका है। जीविका से जुड़ने के पश्चात महिलाओं की 70% महिलाओं आर्थिक स्थिति, 65% महिलाओं की आदत में सुधार हुआ साथ ही अपने परिवार का आर्थिक नियोजन करने में सक्षम हुई (Suman and Jahana), एवं लघुवित्त के माध्यम से गरीबी कम हुई। वन Gram Panchayat (G.P) वन Customer Service Point (CSP) रणनीति के तहत, 3916 बैंक सखियों को प्रशिक्षित किया गया और 2184 को IIBF द्वारा प्रमाणित किया गया।

कृषि क्षेत्र एवं कृषि संबंधित व्यवसाय:

ग्रामीण क्षेत्र से जुड़े परिवार के रोजी-रोटी का मुख्य आधार कृषि एवं कृषि संबंधित व्यवसाय है। आजीविका कृषि हस्तक्षेप के तहत जैविक कृषि को बढ़ावा दे रही है, जिसके तहत मिट्टी एवं पौधों के प्रबंधन के लिए सभी जैविक फॉर्मूलेशन का उपयोग किया जा रहा है, और प्राकृतिक रूप से होने वाले जैविक प्रक्रिया पर आधारित पारंपरिक कृषि पद्धति को आधुनिक एवं वैज्ञानिक कृषि पद्धति से जोड़ा जा रहा है। चयनित 85 कलस्त्रों में जैविक कृषि शुरू की गई है, साथ ही सब्जी की खेती, मिनी टूल किट का प्रयोग, किसान प्रशिक्षण केंद्र, उत्पादक संगठन, नारी हस्तक्षेप द्वारा शराबबंदी एवं नीरा उत्पादन इत्यादि कार्यक्रम को कृषि से जोड़ा जा रहा है। कुल 25863 गावों में 29.73 लाख किसानों को विभिन्न कृषि हस्तक्षेप से लाभ मिला है। ग्रामीण स्तर पर 6186 कैडर (कृषि सखि एवं उद्योग मित्र) का एक मजबूत समूह विकसित किया गया है जो किसानों के लिए कार्य करने के उत्तम तरीके, गुणवत्तापूर्ण दिशा निर्देश एवं बाजार समर्थन उपलब्ध करता है। तथा इसके तहत किसान सलाह केन्द्र एवं ग्राम टूल बैंक की स्थापना की गई है जो कटाई के लिए औजार मशनरी का आदि का प्रबंध करती है। 15312 जीविका द्वारा 10 किसान उत्पादक कंपनियों का संचालन किया जा रहा है। 5000 SHG घरों में सौर घरेलु प्रकाश प्रणालियां स्थापित की गई, 17500 SHG परिवार के पास वर्मी कम्पोस्ट पिट है, साथ ही 1.75 लाख SHA सदस्य न्यूट्री (किचन) गार्डन में लगे हुए हैं। जल जीवन हरियाली मिशन

के तहत वर्ष-2021-22 में 283 नर्सरी का संचालन किया गया एवं 70 लाख से अधिक वृक्षारोपन हुआ।

पशुधन हस्तक्षेप:

पशुधन बिहार के गरीब परिवारों के लिए आय सृजन का सहायक गतिविधि है जो लाखों भूमिहीन परिवार के जीविका का आधार है। इसके अंतर्गत जीविका द्वारा निम्न हस्तक्षेप किए गए:-

दुध उत्पादन को बढ़ावा देने एवं बिक्री हेतु तीन जिलों- सहरसा, सुपौल और मधेपुरा में कौशिकी महिला मिल्क प्रोड्यूसर कंपनी लिमिटेड (KMMPCCL)। इसके अंतर्गत 668 मिल्क प्वांट में 31444 में सदस्य जुड़े हैं और वर्ष 2022-23 में 116 मिल्क प्वांट खोलने एवं 17228 हाउस होल्ड(HH) को जोड़ने का प्लान है। महिला डेयरी सहकारी समिति का अनुबंध COMFED के साथ हुआ है जिससे पशुपालक को प्रशिक्षण टीकाकरण, कृत्रिम गर्भाधान आदि सुविधा मिल सके।

जीविका दीदी को मुर्गी पालन से जोड़ने के लिए समेकित मुर्गी विकास योजना (IPDS) एवं पूर्ण लागत (Full cast Model) की शुरुआत की गई। इससे 15316 HH को लाभ हुआ है, एवं वर्ष 2022-23 में 50748 HH को कवर करने एवं VO के माध्यम से 2283660 चुजे वितरण का लक्ष्य रखा गया था।

बकरी पालन गतिविधि को बढ़ावा देने के लिए 141 जीविका द्वारा बकरी उत्पादक समूहों एवं बकरी उत्पादक कम्पनी की स्थापना की गई है। वर्ष 2019-20 तक कुल 87105 बकरी का वितरण 29035 परिवारों में किया गया है। वर्ष 2022-23 में 42000 बकरी का वितरण 14000 परिवारों में किये जाने का लक्ष्य रखा गया है।

जल जीवन हरियाली मिशन के द्वारा तालाबों का निर्माण एवं पुराने तलाब का जीर्णोद्धार कर समुदाय आधारित मतस्य पालन एवं समेकित मतस्य पालन हेतु जीविका को दिया जा रहा है। अबतक इसके अंतर्गत 19 जिलों के 113 ब्लॉक के अन्तर्गत 198 तालाब का जीर्णोद्धार या निर्माण किया जा चुका है। सामुदायिक स्तर पर अभी केवल 5 VO ने कार्य शुरू किया है, वर्ष 2022-23 में 465 VO माध्यम से 2325 HH को जोड़ने की योजना है।

गैर कृषि क्षेत्र:

जीविका द्वारा कृषि पर निर्भरता कम करने एवं आजीविका के अन्य स्रोत स्थापित करने के लिए मधुबनी कला, सिक्की कला, सुजनी, जूट, दीदी की रसोई, मधुमक्खी पालन, ग्रामीण बाजार, जीविका हाट, स्टार्टअप

ग्राम उद्यमिता कार्यक्रम एवं अन्य क्षेत्र आधारित कला एवं कार्य को देने का कार्य किया जा रहा है। वर्ष 2019 तक लगभग 2.4 लाख जीविका परिवार गैर कृषि कार्य से जुड़े हुए हैं। ग्रामीण उद्यमिता को बढ़ावा देने के लिए बिहार ग्राम सरस मेला का आयोजन के माध्यम से हस्तशिल्प, लोक कलाकृति एवं संस्कृति का अनुठा संगम देखने को मिलता है। वर्ष 2018-19 में उन्नत महिला उज्ज्वल बिहार की थीम पर सन्चालित सरस मेला में 10 राज्यों से 130 स्टॉल में प्रदर्शनी सह विक्री का कार्य हुआ। आजीविका ग्रामीण एक्सप्रेस योजना के तहत ग्रामीण यातायात को सुलभ बनाने के साथ रोजगार सृजन का भी कार्य हुआ।

ग्रामीण युवाओं का कौशल विकास:

तकनीकी के माध्यम ग्रामीण क्षेत्र के युवाओं में कौशल का विकास करना एवं सार्वजनिक एवं निजी क्षेत्र की प्रमुख कंपनी से समन्वय स्थापित कर रोजगार उपलब्ध कराना जीविका के लक्ष्यों में शामिल किया गया है इसके लिए , परिष्करण विद्यालय (Finishing school), मॉडल प्रशिक्षण केन्द्र, जॉब हेल्पलाइन सेंटर (JHC), कॉपोरेट नेटवर्किंग विंग, बाजार सर्वेक्षण/अध्ययन, मेगा जॉब फेयर, कॉचिंग सेंटर आदि का क्रियान्वयन किया जा रहा है।

स्वास्थ्य, पोषण और स्वच्छता:

बिहेवियर चेंज कॉमनिकेशन (BCC) प्रशिक्षण की वजह से जीविका दीदी स्वास्थ्य एवं पोषण के प्रति सजग हो गयी है। जागरूकता के लिए पिको प्रोजेक्टर, रेडियो, रैलियों, अभियानों, फ्लिब चार्ट एवं अन्य संचार माध्यमों का उपयोग किया जाता है।

सामाजिक विकास:

खाद्य सुरक्षा हस्तक्षेप (Food Security Intervention) के अन्तर्गत प्रत्येक VO बैंक को एक लाख रुपये Revolving Fund(RF) दिया जाता है। हेल्थ रिस्क फंड (HRF) के माध्यम से स्वास्थ्य संबंधी समस्या से निपटने के लिए SHG सदस्यों को कम लागत वाला फंड उपलब्ध कराना है। वर्ष 2022-23 में SHG सदस्यों को अपनी स्वास्थ्य बचत बढ़ाने के लिए संगठित किया जा रहा है। मासिक 10 से 20 रुपये HRF जमा करने वाले सदस्य ही इसका लाभ ले पायेंगे।

बिहार में दहेज प्रथा, शराबबंदी, बाल विवाह अभियान में हजारों जीविका सदस्यों ने भाग लिया। इसके अलावा बच्चों को नियमित स्कूल भेजना, घरेलू हिंसा एवं अधिकार (विधवा, बुजुर्ग, निराश्रित महिलाएँ), घर के शौचालय का उपयोग एवं साफ-सफाई, वित्तीय साक्षरता एवं प्रबंधन में भी जीविका दीदी ने हिस्सा लिया। जीविका

ने नवीकरणीय उर्जा के क्षेत्र में भी अन्य संस्थानों TERI, BREDA और IIT बोम्बे के साथ मिलकर कार्य कर रही है। जीविका ने 341 से अधिक सौर दुकानों को बढ़ावा दिया है, एवं JEEVIKA women Initiative Renewable Energy and solution (J-WiRES) Pvt. Ltd. का गठन किया है। लिंग एकीकरण के लिए जीविका और तकनीकी भागीदारी सेंटर फॉर कैटालाइजिंग चेंज (C3) के बीच एक गैर-वित्तीय समझौता ज्ञापन पर हस्ताक्षर किए गए हैं। शैक्षणिक सत्र (2019-20) गुणवत्तापूर्ण शिक्षकों एवं टॉपर छात्रों द्वारा विकसित शैक्षिक सामग्री के डिजिटलीकरण के माध्यम से स्थानीय छात्रों एवं युवाओं को सशक्त बनाने के लिए बिहार बोर्ड के शैक्षणिक सत्र (2019-2020) के लिए एक पायलट प्रोजेक्ट के रूप में टर्न द बस पहल शुरू की गई थी।

निष्कर्ष:

जीविका के वार्षिक रिपोर्ट के समीक्षा के आधार पर कहा जा सकता है कि जीविका प्रारंभ में वित्तीय समावेशन, वित्तीय प्रबंधन एवं सामाजिक गतिशीलता के साथ-साथ कृषि क्षेत्र में ध्यान केन्द्रित करती थी। इस प्रकार प्रारंभ के वर्षों में कृषि क्षेत्र एवं जागरूकता में उच्च प्रवृत्ति दिखता है, जबकि पशुधन एवं गैर कृषि हस्तक्षेप में उसकी प्रवृत्ति निम्न रही है, लेकिन वर्ष दर वर्ष का अध्ययन में सकारात्मक गति दिखती हैं। साथ ही जीविका नारी शक्तिकरण, स्वावलंबन, विभिन्न क्षेत्र जैसे, शिक्षा, स्वास्थ्य, व्यवसायिक प्रशिक्षण, सामाजिक कुरीति में भी इनकी हिस्सेदारी बढ़ती जा रही है। आँकड़ों के विश्लेषण से यह भी पता चलता है कि कृषि क्षेत्र में लोगों की भागीदारी अधिक है एवं आय का प्रमुख स्रोत भी है। जीविका का बजारीकरण होने से कला, शिल्प, स्थानीय संस्कृति को राष्ट्रीय एवं अन्तराष्ट्रीय स्तर पर इनकी उपस्थिति इसके भविष्य के सकारात्मकता को दर्शाती है।

अध्ययन की सीमाएं:

1. इस अध्ययन में जीविका के सम्पूर्ण पहलुओं को शामिल नहीं किया गया है।
2. यह अध्ययन केवल जीविका से संबंधित बिहार सरकार एवं विश्वबैंक के प्रकाशित श्रोत एवं अन्य द्वितीयक श्रोत पर आधारित है।

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Intellectual Property Rights: A Crucial Role in Horticulture Sector

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Abstract:

This research paper explores the crucial role of Intellectual Property Rights (IPRs) in the horticulture sector, focusing on their impact on innovation, investment, and technology transfer. Through a qualitative analysis, incorporating literature review and case studies, the paper examines how various forms of IPRs, including patents, plant breeders' rights, trademarks, and trade secrets, contribute to fostering innovation and protecting horticultural innovations. The study finds that effective protection of intellectual property encourages research and development activities, incentivizes investment in horticulture, and facilitates collaboration among stakeholders. However, challenges such as access to genetic resources and enforcement issues pose significant hurdles. The paper concludes that addressing these challenges is essential to realizing the full potential of intellectual property rights in supporting sustainable growth and development in the horticulture sector, thereby contributing to global food security.

Keywords: Intellectual Property Rights (IPRs), Horticulture Sector, Innovation, Investment

Introduction:

Intellectual Property Rights (IPRs) play a crucial role in protecting innovations and creations in various industries, including agriculture and horticulture. The horticulture sector, encompassing the cultivation of fruits, vegetables, flowers, and ornamental plants, relies heavily on innovation and research to improve crop varieties, increase yields, and develop new products. With the world's population projected to reach 9.7 billion by 2050, the demand for horticultural products is expected to increase significantly, driven by factors such as urbanization, changing dietary preferences, and growing consumer awareness of health and nutrition. In this context, innovation and technological advancements are essential for enhancing productivity, sustainability, and resilience in horticulture. Intellectual Property Rights (IPRs) play a crucial role in fostering innovation and protecting the fruits of research and development (R&D) efforts in various industries, including agriculture. In the horticulture sector, where the development of new plant varieties, breeding techniques, and innovative products is

paramount, the importance of IPRs cannot be overstated.

Historically, the horticulture sector has relied on traditional breeding methods to develop new plant varieties with desirable traits such as higher yields, disease resistance, and improved quality. However, advancements in biotechnology, genomics, and other fields have revolutionized horticultural research and development, enabling the rapid development of novel varieties with precise genetic modifications. Intellectual property protection is essential to incentivize investment in these technologies and ensure a return on investment for innovators.

Through a qualitative analysis, incorporating literature review and case studies, this research paper will provide insights into how IPRs shape the landscape of innovation in the horticulture sector. By understanding the role of intellectual property in driving research, development, and commercialization activities in horticulture, policymakers, industry stakeholders, and researchers can make informed decisions to

support sustainable growth and development in this critical sector.

This research paper aims to explore the significance of IPRs in the horticulture sector, examining how they contribute to innovation, investment, technology transfer, and sustainable agricultural practices.

Objectives of Research:

1. To analyze the importance of IPRs in promoting innovation and investment in the horticulture sector.
2. To examine the various forms of intellectual property protection available for horticultural innovations.
3. To assess the impact of IPRs on fostering collaboration and technology transfer within the horticulture industry.
4. To explore the challenges and opportunities associated with the application of IPRs in horticultural research and development.

Hypothesis:

The major hypothesis of the research is effective protection of intellectual property rights enhances innovation, stimulates investment, and promotes technology transfer in the horticulture sector, ultimately leading to sustainable growth and development.

Data Collection and Methodology:

This research paper adopts a qualitative approach, utilizing a combination of literature review and case studies to examine the role of IPRs in the horticulture sector. Relevant academic journals, books, policy documents, and industry reports will be reviewed to gather insights into the significance of IPRs in fostering innovation and development in horticulture. Additionally, case studies of successful implementation of IPRs in the horticulture industry will be analyzed to identify best practices and challenges.

Results and Discussion:

The results of the literature review and case studies indicate that intellectual property rights play a crucial role in incentivizing innovation and investment in the horticulture sector. Patents, plant breeders' rights, trademarks, and trade secrets are among the key forms of intellectual property protection utilized by horticultural innovators to safeguard their creations and ensure a return on investment. Moreover, effective enforcement of IPRs facilitates technology transfer and collaboration among stakeholders, leading to the dissemination of knowledge and the adoption of best practices.

Innovation and Investment:

Intellectual property rights (IPRs) play a pivotal role in incentivizing innovation and investment in the horticulture sector. Patents, plant breeders' rights (PBRs), and other forms of IPRs provide legal protection for novel plant varieties, breeding techniques, and innovative products. This protection encourages horticultural researchers and companies to invest in R&D activities, knowing that their efforts will be safeguarded and rewarded. Studies have shown that strong IPR regimes correlate with increased R&D spending and greater innovation output in the agricultural and horticultural sectors (Blakeney, 2018).

Technology Transfer and Collaboration:

Effective enforcement of IPRs facilitates technology transfer and collaboration within the horticulture industry. Licensing agreements, joint ventures, and other collaborative arrangements allow companies and research institutions to share knowledge, resources, and expertise. In this way, IPRs serve as tools for disseminating innovations and accelerating the adoption of best practices. Case studies of successful technology transfer initiatives, such as the development and commercialization of genetically modified (GM) crops, demonstrate the positive impact of IPRs on fostering collaboration and knowledge exchange (Crespi & Falck-Zepeda, 2015).

Access to Genetic Resources:

While IPRs provide incentives for innovation, they also raise concerns about access to genetic resources and the equitable sharing of benefits. Plant breeders often rely on genetic material sourced from diverse ecosystems to develop new varieties with desirable traits. However, stringent IPR regimes may restrict access to these genetic resources, particularly for smallholder farmers and researchers in developing countries. Balancing the protection of intellectual property with the need for access to genetic resources is a complex challenge that requires collaboration between governments, research institutions, and the private sector (FAO, 2017).

Enforcement Challenges:

Despite the benefits they offer, IPRs face challenges related to enforcement and compliance. Piracy, counterfeiting, and unauthorized use of patented technologies are persistent issues in the horticulture sector, undermining the incentives for innovation and investment. Weak enforcement mechanisms and inadequate legal frameworks contribute to these challenges, particularly in

developing countries where regulatory capacity may be limited. Strengthening enforcement measures, raising awareness about intellectual property rights, and building institutional capacity are essential steps to address these challenges and ensure the effective protection of innovations in horticulture (World Intellectual Property Organization, 2018).

Sustainable Agriculture:

Intellectual property rights play a crucial role in promoting sustainable agricultural practices in the horticulture sector. By protecting innovations that enhance crop resilience, reduce environmental impact, and improve resource efficiency, IPRs contribute to the development of sustainable farming methods. For example, the adoption of biotechnological innovations, such as genetically modified organisms (GMOs) and precision agriculture technologies, has the potential to mitigate climate change, conserve biodiversity, and promote food security. However, achieving sustainability goals requires a holistic approach that considers socio-economic, environmental, and ethical considerations alongside intellectual property protection (Subramanian & Qaim, 2010).

Overall, the results and discussion highlight the multifaceted role of intellectual property rights in shaping the horticulture sector's development. While IPRs provide essential incentives for innovation, investment, and technology transfer, addressing challenges related to access to genetic resources, enforcement, and sustainability is critical to realizing their full potential in promoting sustainable growth and development in horticulture. Collaboration between stakeholders, informed policy-making, and capacity-building efforts are essential for harnessing the benefits of intellectual property rights while addressing their associated challenges.

Conclusion:

Intellectual property rights are essential for promoting innovation, investment, and technology transfer in the horticulture sector. By providing legal protection for new plant varieties, breeding techniques, and innovative products, IPRs incentivize research and development activities, driving sustainable growth and competitiveness in the industry. However, challenges such as access to genetic resources, enforcement issues, and the need for balanced IP regimes remain critical considerations for policymakers and industry stakeholders.

Addressing these challenges will be crucial to realizing the full potential of intellectual property rights in supporting the horticulture sector's development and contributing to global food security.

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