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Young Researcher Association



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5 C's Social media marketing and its impact on consumer buying behavior for Electric vehicles in Bangalore city

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Abstract:

In the short time since the web 1.0 era ended, the web 2.0 era of increased interactivity and user-generated content has altered the ways in which brands present themselves on the internet. Consumers are increasingly using social media to interact directly with the businesses that provide the goods and services they purchase, as well as with other customers who may have valuable insights regarding the operations of these businesses, in addition to conducting research on various products and services available on the market. Only a few in-depth studies on the impact of social media advertising on consumer behavior with respect to electric vehicles have been done so far. Given the nature of the questions being addressed, this investigation will zero in exclusively on those components of social media marketing that play a role in shaping customers' final purchasing decisions. Academic studies and real-world observations have combined to solidify the growing opinion that the electric vehicle industry must be rapidly expanded. This suggests there is opportunity for improvement in rigorous study on the development of the EV business based on the description of customer behavior. Therefore, the purpose of this research is to examine if and how social media advertising affects consumers' decisions to buy electric vehicles. To achieve the goals of this study, a descriptive research approach will be utilized. The researchers plan to collect the information by means of a thorough questionnaire based on prior studies. The literature research revealed that communication, characteristics, content, security, and reputation are the five most crucial elements of social media. Using both categorical and continuous variables is essential to the questionnaire design process. In order to determine the scale validity and reliability of the instrument, researchers verified the questionnaire's convergent and discriminant validity. The study will consider data from 150 people who have expressed interest in purchasing an electric vehicle, with a margin of error of 5% and a confidence range of 95%. As there are many moving parts in social media marketing, we will be employing Structural Equation Modelling in AMOS ® to conduct our study. Based on the impact of social media aspects on consumer purchasing behavior toward electric automobiles, the study's findings will be useful to electric vehicle marketing units in Bangalore city. The results of this analysis imply that the sustained success of social media depends on factors including security, reputation, appealing content, contact, and communication. Consumers' purchasing decisions are affected by 5C's of social media marketing by a structurally substantial 55% in the study

Keywords: social media, Marketing, Electric Vehicles, Consumer Buying behavior

Introduction

Greenhouse gas emissions (GHGs) from transportation and other forms of air pollution can be mitigated with the help of electric cars (EVs) (Krupa, J.S., et al., 2016). Most developed countries are currently enforcing numerous restrictions and offering financial incentives to encourage the broad use of electric vehicles. Much of the current literature is devoted to examining the

financial viability of electric vehicle (EV) advertising, the optimal placement of charging stations, and the factors that influence consumers' parking decisions. (Axsen, J., and K.S. Kurani, 2008) (Larson, P.D., et al.2014). Plug-in hybrid electric vehicles (PHEVs), extended-range battery electric vehicles (E-REVs), battery electric vehicles (BEVs), and hybrid electric vehicles (HEVs) (HEVs) are the four main categories

of EVs (Rezvani, Z., J. Jansson, and J. Bodin. 2015.)

Even though most people think that EVs should be extensively used, the benefits of doing so and making them a reality depend on individuals being willing to try new things. According to a research conducted in 2008 by Axsen and Kurani (Axsen, J. and K.S. Kurani), 69% of American consumers admit to knowing "very little" or "nothing at all" about the technology that goes into PHEVs. The fact that people would not take premiums to make the changeover to EVs has been supported by additional research (Larson, P.D. & et al, 2014). In another survey, participants in major American cities were probed about their attitudes and knowledge of plug-in electric automobiles. The results indicated that just a small fraction of the population is considering buying or leasing an electric vehicle.

Much of the prior study in this area has investigated the consumer's point of

view, desire, and attitude toward EVs, in addition to other sociological or psychological aspects on the adoption of EVs (Egbue, O.; Long, S, 2012). The findings showed that people's perspectives about EVs differed by gender, age, and educational background (Bunce, L., M. Harris, and M. Burgess, 2014). As a rapidly expanding channel of communication, social media is being heralded as a promising new venue for advertising goods and services (Hsu, 2012).

The term "social media marketing" refers to the process of promoting a business or other organization through social media platforms. The use of social media marketing methods is common in business-to-consumer (B2C) sectors, and the concept of social media in relation to B2C has been the topic of much study. More and more B2B (business-to-business) communications are taking place on social media platforms (Bernof, 2009 ; Ramos, 2009)

Review of Literature

Social Media Marketing Literature review	
Mohammadian, M., & Mohammadreza, M. (2012).	Marketing managers may use their company's social media to build strong connections with their consumers and foster loyalty. However, despite searching a variety of national and international scientific journals, the researcher was unable to locate any data supporting a model for social media success. As a result, we want to establish a framework for determining what makes a social media campaign effective. Using a questionnaire, factor analysis, and structural models, the researcher created this model with Allameh Tabatabai university students in mind. Positive effects of elements including security, appealing content, reputation, engagement, and communication were seen.
Arora, T., Kumar, A., & Agarwal, B. (2020)	The purpose of this research is to present a theoretical framework for understanding how Indian millennials view social media advertisements in terms of factors such content informativeness, entertainment value, legitimacy, interaction, and privacy concerns. The results suggested significant correlations that could shed light on the emotional and behavioral responses of young Indians to advertisements displayed on social media. This research may be used by marketers, advertisers, and brand managers to improve the commercials they produce for usage on social media sites, with the hope that these commercials will have a greater impact on customers' perceptions and, eventually, their behaviors.
Ioanas, E. (2020).	Consumers now have access to more resources than ever before, allowing them to conduct their own product evaluations, rate products, and share their experiences with others. Thus, many businesses now have profiles on social networks to complement the information known about items, the input of consumers about products, and the inclination to relate more to a firm after reading several reviews.

Research Gap

To begin, India has performed comparably less research on electric automobiles when compared to nations with significantly diverse populations, such as China, the United States, and the United Kingdom.

Since there have been no studies conducted to provide managers in the electric vehicle sector with information regarding the practical implications of social media marketing, there is also a scarcity of practical competence.

Objectives of the research

1. To identify the awareness and usage of social media for purchase of Electric vehicles
2. To determine the successful social media parameters of electric vehicles and its impact on consumer buying behavior

Research Methods

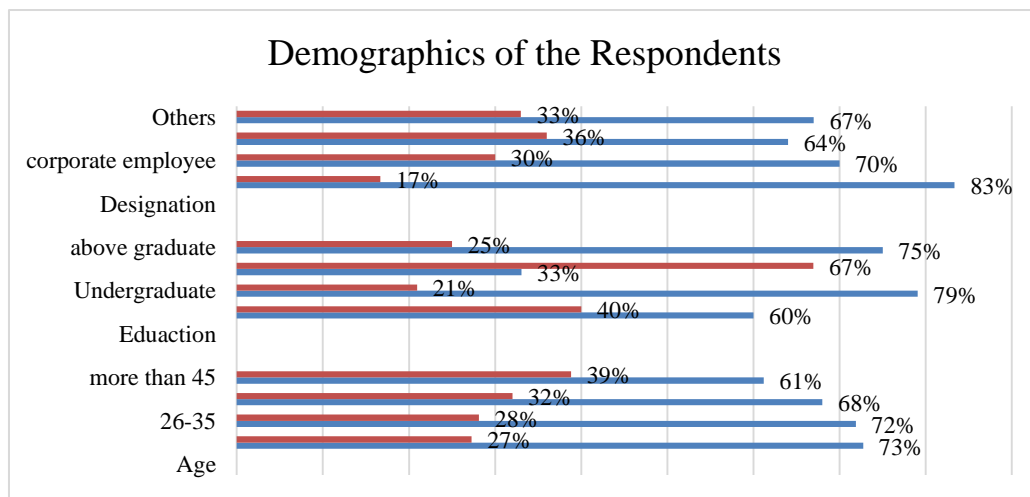
The goal of this descriptive study is to find out how social media marketing factors lead to a successful social media campaign. Questions from the study of Mohammadian, M., & Mohammadreza, M. (2012) are considered for the study.

Table 1- Questionnaire design

Description	No of questions	Type of Questions
Demographic Profile	3	Multiple Choice
Transportation profile	4	Multiple Choice
Awareness	5	Likert scale
Social media marketing	3*5 (15)	Likert scale
Consumer buying behaviour	3	Likert scale

The master validity series was used to check the scale validity and reliability of the questionnaire, and it met the acceptable criteria. The sample for the study was made up of potential electric vehicle buyers who were chosen using the convenient sampling. Using the Cochran formula for an unknown population with 95% confidence and a 5% error margin, a sample of 100 people was

chosen. To account for non-responses, the number of potential vehicle buyers in the sample was increased to 150. For the study, 120 Potential electric vehicle buyers were chosen after the outliers were taken out. The SPSS Ver 25 and AMOS Ver 22 programs were used to do the statistical analysis.

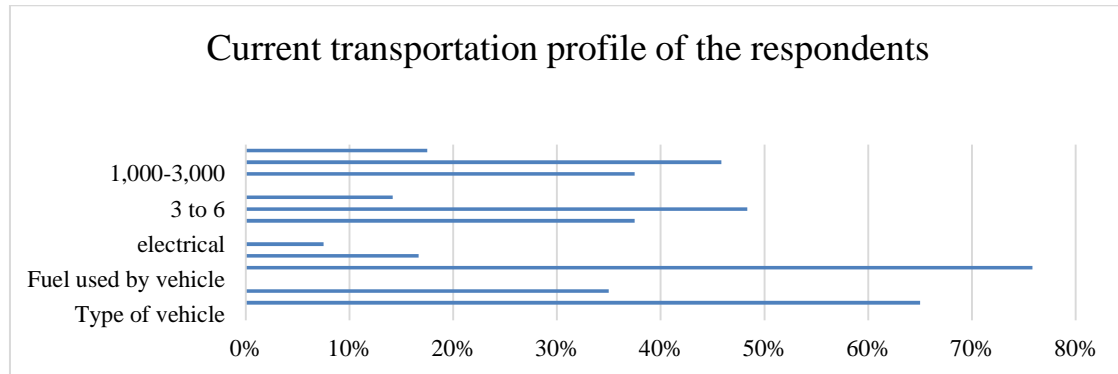
Results and Discussion**Demographic profile of the respondents****Figure 1- Demographic profile of the respondents**

There were 67 percent of male respondents and 33 percent of female respondents in the survey. The respondents' ages, educational qualifications, and occupational designations are presented in the chart that may be found above. The survey has collected almost the same amount of responses from each age group, with 25 percent coming from the 16–

25 age range and 18 percent coming from those older than 45. while 67% of female respondents did. The majority of those who responded were businesspeople who relied heavily on various modes of transportation in the course of their work. 45 percent responders were businesspeople.

Current transportation profile of the respondents

Figure 2- Current Transportation profile of the respondents



The respondents' current transportation profiles contain information such as the type of vehicle they possess; for example, 65 percent of the respondents owned two-wheelers whereas 35 percent of the respondents owned four-wheelers. To get about, the respondents' primary means of transportation was a gasoline-powered car in

76% of cases, while just 8% drove an electric vehicle. The majority of respondents, 46 percent, had automobiles that had been in operation for three to six years, and the majority of respondents spent around three thousand to five thousand dollars every month on gasoline expenditures.

Awareness of Customers on E-Vehicles

Table 1- Awareness of Customers on E-Vehicles

AWARENESS OF E- VEHICLES	Mean score
E-vehicles, as far as I'm aware, cut down on the emissions that cause global warming and pollution, so enhancing public health and decreasing the amount of harm done to the environment.	1.525
I'm concerned about the environment and, if given the opportunity, I'll work to improve it.	1.558
I believe that driving an electric vehicle offers a plethora of advantages, and I want to one day own one.	1.959
I am familiar with all of the initiatives that the government has taken in reference to electric vehicles.	2.133
In light of the increasing levels of pollution in metropolitan areas, I believe that electric vehicles serve their function.	1.667

The purpose of this series of questions was to elicit replies from consumers regarding their knowledge levels regarding electric vehicles (E-Vehicles). In order to analyse the replies, a three-point scale was utilised. 1 indicates not helpful, 2 indicates maybe, and 3 indicates quite helpful. E-vehicles lower the emissions that contribute to climate change and pollution, benefiting public health and minimising ecological harm, according to 62 percent of the respondents who acknowledged that they are aware of this fact.

Testing of Hypothesis

There is a significant impact of social media marketing factors on Consumer Buying behaviour

Model Fit - According to the Chi-square/df (2/df) value, the basic model fits statistics should fall below 3 (2.955). Goodness-of-Fit ratings improve when compared to the proposed features (0.871). An RMR of 0.071 is found to be within the limits. It is agreed that the model has passable accuracy.

Fig 1- Pictorial representation of Structural relationship – Second order confirmatory factor analysis for social media determinants and Consumer Buying behaviour

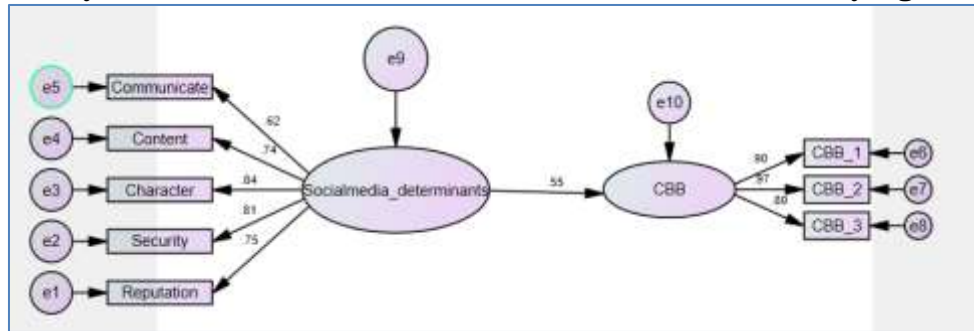


Table 2 - Structural relationship – Second order confirmatory factor analysis for social media determinants and Consumer Buying behaviour

			Estimate	S.E.	C.R.	P
CBB	<---	Socialmedia_determinants	0.548	0.198	3.51	***
Reputation	<---	Socialmedia_determinants	0.754			
Security	<---	Socialmedia_determinants	0.813	0.204	5.638	***
Character	<---	Socialmedia_determinants	0.836	0.179	5.788	***
Content	<---	Socialmedia_determinants	0.743	0.203	5.13	***
Communicate	<---	Socialmedia_determinants	0.624	0.235	4.255	***
CBB_1	<---	CBB	0.905			
CBB_2	<---	CBB	0.97	0.109	10.87	***
CBB_3	<---	CBB	0.799	0.142	7.657	***

Social media determinants

Communication

Many definitions of social media emphasize the importance of user participation and the importance of fostering open lines of communication and engagement. Historically, it has taken a lot of time and money for businesses to learn about the industry.

Content

Disseminated data on social media The vast majority of those that specialize in social media say that social media is the most crucial factor when trying to make engaging content. In the current study as Content factor increases by 1 time the success of social media factor increases by 74% ($b=0.743$, $p<0.005$) and this association is statistically significant

Online Character

Website or social media characters are an important part of keeping people interested in your social media and other internet-related content. In the current study as Social media character factor increases by 1 time the success of social media factor increases by 83% ($b=0.836$, $p<0.005$) and this association is statistically significant

Security

When discussing the topic of social media security, we are referring to the degree

of personal danger that a user or citizen perceives throughout the course of their professional activities using social media. In the current study as security factor increases by 1 time the success of social media factor increases by 81% ($b=0.813$, $p<0.005$) and this association is statistically significant

Reputation

In this section, we will use the reputation of online sources to define the reputation of social media platforms. In the current study as Reputation factor increases by 1 time the success of social media factor increases by 75% ($b=0.754$, $p<0.005$) and this association is statistically significant Of all the 5 factors , The social media security and social media character have the highest effect on the social media determinants.

Consumer Buying behaviour

A series of questions were developed with the intention of eliciting comments from consumers regarding their Purchase Preferences for E-Vehicles.

The structural relationship shows that the social media marketing impacts the consumer buying behaviour by 55 % ($b=0.548$, $p<0.005$) and this association is statistically significant.

Conclusion

An illustration of how the use of social media may give customers more control.

Participating businesses have high hopes that their marketing efforts will see an increase in the number of channels available to them, that their exposure will grow, that they will strengthen connections with existing customers, and that they will generate more interest in their other promotional offerings. As was stated earlier, all of the many social media platforms provide their own unique contributions to the globalization of information transmission, reception, and circulation. Rejection, misinterpretation, and misunderstanding are all potential roadblocks in the process of communication. These potential roadblocks have far-reaching effects on everything from a company's ability to reach its target audience to the steps that a customer takes before and after making a purchase. When it comes to public relations (PR) and doing business on a global scale, the internet paves the way for both new opportunities and new obstacles. Our knowledge of networks as well as the relationships that exist between companies and the clients they serve is altered as a result. Prior to the proliferation of social media platforms, the only options available to customers who wanted to voice their complaints were to call customer care or to tell others about the situation through their personal networks. This shifted as the use of social networking sites such as Facebook and Twitter became increasingly widespread. Customers today have the ability to be absolutely honest and forthright about their experiences online, which means that modern firms may demand fast feedback from their clientele. In addition, the growth of social media platforms has complicated the formerly simple concept of the noble purchasing behavior process. This is because peer communication is a form of shopper socialization that is becoming increasingly prevalent. According to the buyer socialization theory, the mental, emotional, and behavioural make-ups of consumers are moulded by their interactions with other people. This idea is supposed to be true. The results of the present study are consistent with those discovered by other researchers and can be applied to the study of electric vehicles.

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Development of Rural Marketing in India

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Abstract-

India is a diverse country where about 70% of people live in villages. The rural economy of India has rapidly transformed in the last decade. The rural economy has rapidly transformed in the last decade and is now being led by manufacturing. Indeed, agriculture accounts for only about one-fourth of rural GDP compared to half a decade ago. About 55 percent of manufacturing GDP is rural; nearly 75 percent of new factories built in the last decade. The aim of this article is to study the corporate sector initiation to cover rural customer and factors contributing towards the growth and development of rural marketing in India. This article is based on secondary data. Rural marketing is all about planning and implementing marketing function for the rural areas. The rural market in India is vast and scattered. It offers an opportunities in comparison to the urban sector.

Key words- Rural marketing, growth in marketing, initiatives by the government facilities for rural India, corporate to rural market.

Introduction:

The rural economy of India has rapidly transformed in the last decade and is now being managed by manufacturing. Certainly, agriculture accounts for only about one-fourth of rural GDP compared to half a decade ago. About 55 percent of manufacturing GDP is rural; nearly 75 percent of new factories built in the last decade were in rural areas, and rural factories account for 70 percent of all new manufacturing jobs. Industrial development in rural India has increased household purchasing power and income stability. Rural India accounts for about 50 percent of India's GDP and nearly 70 percent of India's population. This enormous opportunity has been clear for a decade or more. However, only in recent years have these markets lived up to their promise. Per capita rural GDP has also experienced strong improvement over the past few years.

India is a diverse country where about 70% of people live in villages. Through the production of food grains, vegetables, fruits, and other items, villages play a significant role in the nation's economic development. These agricultural exports bring in capital and foreign exchange

earnings. Simply put, approximately two thirds of the population, particularly in developing nations, resides in rural areas and earns their living through agriculture and related activities. The farm's output, which includes food, fiber, and other raw materials, is processed and made available to consumers in urban areas.

The natural world is closely intertwined with the rural environment, including agricultural lands, forests, rivers, mountains, etc. whereas in urban areas, the environment is created by humans. Social connections in rural areas are personal and relatively lasting. Relationships are typically casual, impersonal, and of short duration in urban areas.

In contrast to densely populated urban areas, the countryside is referred to as a sparsely populated area. Rural residents reside in isolated houses, farms, and villages. Due to the limited availability of services like schools, banks, hospitals, libraries, sewerage, street lighting, public transportation, and telecommunications facilities, rural lifestyles differ from urban lifestyles.

In the majority of rural areas, basic amenities like housing, healthcare, education, water supply, roads,

communication, and transportation are lacking. In rural areas, half of the population lives in an unhealthy and filthy environment. Other issues that rural residents face include poverty, unemployment, and a lack of financial resources for modernizing agriculture and starting small businesses. There is a difference between the urban and rural environments. The majority of marketers in rural India are unprepared for living in villages with a variety of customs, languages, culture, education, and levels of prosperity.

More multinational corporations are entering India's rural markets in an effort to expand the market by entering rural areas. Big names like Hindustan Lever, Coca-Cola, Pepsi, LG Electronics, Britannia, Philips, and Colgate Palmolive are among them, as are telecom companies with foreign investments.

The process of developing, pricing, promoting, and disseminating a rural-specific product or service that not only meets consumer demand but also meets organizational goals as expected from the target market is part of rural marketing.

It basically consists of a three-way marketing stage during which transactions may include:

Rural to Urban: Urban marketers use this method to sell their goods and services to rural customers. Pesticides, fast-moving consumer goods, consumer durables, and other items are the majority of these items.

Urban to Rural: A rural producer uses this method to sell his goods in urban markets. This may or may not be direct, but most of the time there are middlemen, agencies, government co-ops, and other similar organizations, who take initiative to ensure that the selling process runs smoothly and at an appropriate cost.

Rural to Rural: It is a process that involves trading agricultural goods, tools, cattle, carts, and other items with another nearby village.

According to National Commission on Agriculture "Rural marketing is a process which starts with a decision to produce a salable farm commodity and it involves all the aspects of market system, and includes pre and post-harvest operations i.e. assembling, grading, storage, transportation and distribution".

Attractiveness of Rural Market and Reasons - Companies Go Rural

1. **Numerous People:** 70% of India's population, 740 million Indians, resides in rural areas, according to the 2001 census. Rural populations are also growing at a faster rate than urban populations. Over 6 million villages house the rural population. Despite its dispersed nature, the rural population holds a lot of promise for marketers.
2. **Rising Wealth in Rural Areas:** Modern farming methods, contract farming, industrialization, migration to urban areas, and money sent home by family members settled abroad have all contributed to an increase in average income.
3. **Increased purchasing power:** The rural population's purchasing power is increasing. Marketers are expanding their operations in rural India because they have realized the potential of rural markets. As the overall growth of the economy has resulted in a significant increase in the purchasing power of rural communities, rural markets have recently acquired significance in nations like China and India.
4. **Lifestyle shifts:** Rural consumers' lifestyles have changed significantly. There are a number of direct and indirect factors connected to the rural economy that contribute to the shifting way of life in rural areas. For rural consumers, the primary sources of purchasing power are the marketing of agricultural surplus and terms of trade between rural and urban areas. Indian agriculture is largely dependent on rainfall. As a result, rainfall has an effect on rural demand for consumer goods in an indirect way. As a result, consumers in rural areas have insufficient purchasing power. However, as a result of the government's massive expenditures on irrigation, flood control, infrastructure development, poverty reduction programs, subsidies, and other initiatives, rural people's purchasing power has increased.
5. **Advantage of the Life Cycle:** In the rural market, the products are still in the growth stage, despite having reached maturity in the urban market. Examples include common soaps, skin cream, talcum powder, and so on.
6. **Market expansion is faster than urban:** According to the NCAER survey, the FMCG and durables markets' growth

rates are higher in rural areas. Products like body talcum powder, toilet soap, cooking oil, hair oil, etc. have more than 50% of the rural market. Over the years, the rural market has grown steadily. Demand for traditional goods like bicycles, agricultural inputs, fast-moving consumer goods, etc. has also expanded over time. Quantitative as well as qualitative growth have occurred.

7. **Programmes for growth:** This was brought about by rural development programs providing new employment opportunities and income streams, which led to green and white revolutions and a revolution in the rising expectations of rural masses. Demand for bicycles, agricultural inputs, farm goods, and other goods, has also expanded over time. As a result, rural areas now have more potential.

Need for exploring the rural marketing:

There are opportunities to market consumer goods and services in rural areas as well as agricultural products in urban markets, so many businesses with excellent manufacturing facilities and marketing expertise are concentrating on rural markets.

1. **Expanding the Rural Market:** In rural areas, there is a growing market for consumer goods in addition to agricultural inputs. More than half of India's "consuming classes," according to NCAER, are rural consumers, who are the target market for consumer goods and services.
2. **Strong rivalry in major urban markets:** Costs have gone up, but profits and market share have not increased as a result of intense competition in the urban market. When it comes to establishing their products in rural markets, numerous businesses have led the way HUL, Colgate, Marico, Nirma, and LG Electronics are some examples.
3. **To Change Farmers' Attitude and Get Them to Treat Agriculture Like a Business:** Farmers have traditionally considered agriculture to be a way of life, producing only enough food for their families. By adopting cutting-edge farming techniques, many forward-thinking farmers have seen an increase in crop yields. Producing more will be encouraged, even for small farmers. The high marketable surplus will boost farmers' incomes when agriculture is well

developed. The demand for consumer and industrial goods is strong as a result.

4. **Jobs are created through rural marketing:** Opportunities for employment arise from the diversification of agriculture, the growth of village-level industries, and the marketing of contemporary goods and services.

Examples:

1. Opportunities in the rural sector will arise as insurance companies expand into more remote areas in search of new customers. There will be a need for people who know India's rural areas.
2. A lot of BPO companies are moving to the hinterland in search of cheaper talent pools that will stay with them due to the high attrition rate and rising costs of human resources. Smaller towns are seeing centers set up by software companies as well. Rural areas will be cost-competitive because salaries will be up to 50% lower than in cities and real estate will be about five times less expensive.
3. In order to produce skilled automotive workers, the government intends to establish a chain of professional institutes in rural areas through a public-private partnership. The proposal has also been supported by the Ministry of Rural Development, which has offered to provide financial and other support. It's possible that the institutes will be like the existing Industrial Training Institutes.
5. **Rural Tourism:** includes a variety of activities, services, and amenities offered to tourists by rural residents. Cultural and farm tourism, nature getaways, and touring in rural areas are the main topics covered. Tourists also enjoy the traditional hospitality and village life. Rural tourism is favored by many urban dwellers because it allows them to return to their hometowns (villages) and escape the stress of urban life. Villagers benefit from an increase in income and employment opportunities brought about by rural tourism. Additionally, rural vacations give the young urban population a taste of rural life.
1. For instance, the Kushti (Wrestling) Carnival in Kundal, Maharashtra's Sangli District, attracts close to two lakh people.

2. Wine tourism has been started by winners in Maharashtra. Wine tourism aims to provide visitors with lodging in a winery, a tour of the vineyard, and an understanding of the winemaking process. In addition, you'll be able to enjoy the beverage.
3. The harvest festival of Pongal's Jallikattu, or taming of the bull, has become a part of the tourism package in Tamil Nadu.
4. Rajasthan has been portrayed as a destination with forts, palaces, sandstones, paintings, pottery, artisanal wares made by locals, and community entertainment.
5. Purushwadi, a 180-kilometer-long village. From Mumbai, "Grass Routes," a group that promotes village tourism, has made it a popular tourist destination. Since its inception in 2006, more than 60 households have invited guests to stay with them and experience village life, such as trekking, working in a farm, taking a dip in the river, and visiting a hill temple.
6. **Over 70% of the nation's population resides in rural areas:** Rural markets have a lot of potential because they have a lot of customers, and businesses see them as the markets of the future. In urban India, the middle class is already well served. However, the banking, insurance, basic health care, education, and housing markets in the rural areas are not well served. In addition, the widespread use of color television, refrigerators, four-wheelers, and other is low in rural areas, providing creative marketers with enormous opportunities.
7. **Loyalty to a brand:** The majority of rural customers are price-conscious due to their low income. However, once they are satisfied with a product, they will continue to buy from that brand. Parle Biscuits, for instance, continue to be preferred to local brands.
8. **Competition from abroad:** When foreign companies enter the Indian market, they typically target urban consumers. As a result, competition is lower in rural markets.
9. **Creation of a Regional Television Network:** has made it possible for marketers to communicate with the rural population about products and services.

The younger village generation is more likely than the older generation to have been exposed to a variety of media, and they like to imitate their urban counterparts. In rural areas, children have a significant impact on purchase decisions.

Britannia launched the Tiger brand of biscuits with children in mind. The slogan "Tiger Khao, kuch banke dikhao" appeared on the biscuits, which were sold to children.

10. Advantage of the Life Cycle: In urban areas, many products reach maturity or decline, whereas in rural areas, they are still in growth.

Factors Contributing to the Growth of Rural Markets

1. **Rising levels of literacy:** Literate people make up about half of the rural population, according to the census from 2001. Rural demand has increased as a result of this. Rural consumers' buying habits and lifestyles have changed as a result. Consumer goods have seen an increase in demand as literacy rates have increased. Rural customers' purchasing habits change as a result of these social and cultural shifts
2. **Initiatives by the government:** The following are the government of India's efforts to promote rural markets:
 1. Being self-sufficient (Operation Flood, the White Revolution, and the Blue Revolution)
 2. The Integrated Rural Development Program (IRDP), TRYSEM (Training Rural Youth for Self-Employment), and REP (the Rural Electrification Program).
 3. Farmers can get loans from PSU and cooperative banks, like the "Kisaan" credit card from Canara and Andhra Bank.
 - a. **Contract agriculture:** Companies provide variety seeds with high yields and collaborate with farmers to cultivate crops and resell them to the company.
 - b. Rural markets have expanded rapidly as a result of tax exemptions in economically disadvantaged areas, subsidies, concessions, and incentives, and substantial investment in programs for rural development.
3. **Facilities for the infrastructure:** In rural India, construction of roads and transportation, a communication network, rural electrification, and a public distribution system are among the growing number of infrastructure

facilities and public service projects. There is potential for rural marketing as a result of these factors.

4. **New opportunities for employment:** The development of rural India as a result of the government's various socioeconomic policies has created new employment opportunities; such as the Integrated Rural Development Program, or IRDP. The purchasing power of rural residents has increased as a result of new employment and rural development initiatives.
5. **Increasing media:** Rural consumers have become more aware as a result of the increased prevalence of mass media (such as radio, television, posters, and the press). Villages have been significantly affected by the expansion of satellite TV channels. The way people live and what they consume has changed as a result.
6. **Agricultural studies:** The possibilities for rural marketing have expanded as a result of agricultural research. Indian Council of Agricultural Research (ICAR) and other organizations carry out agricultural research in the country. Crop yields have skyrocketed as a result of new scientific methods. The Green Revolution resulted from it.
7. **The Green Movement:** In rural India, a technological breakthrough has occurred as a result of the green revolution, resulting in significant wealth generation.
8. **Marketing initiatives:** Many multinational corporations have entered rural markets. In the areas of availability, affordability, acceptability, and awareness, multinational corporations such as Hindustan Lever, LG Electronics, Godrej, Philips, and Bajaj have employed novel marketing strategies.
9. **Impact from the city:** Urban dwellers have an impact on rural people's purchasing habits and lifestyles. This may be because youth in villages are influenced by their exposure to mass media and by villagers working in towns and cities.
10. **Rising Income from Disposables:** In rural areas, the Administered Pricing Mechanism (PAM), favorable monsoons, and green revolution have increased disposable income.

11. **The Benefit of Having a Higher Standard of Living:** People in the countryside have been inspired to alter their ways of life and attain a higher standard of living.

Conclusion: As a result, marketers are interested in expanding the rural market. Because of the reach of the media into rural areas, it is now simple for marketers to sell products there. Marketers are expanding their operations in rural India because they have realized the potential of rural markets. These developments are positively impacting the family, farmers and the rural youth. Family can have better health, farmers can have the better productivity and youths have better employment opportunities. Rural people have an opportunity to have vast amount of relevant information, which they can use to make informed decisions. They also now have a platform because of these developments, which can create urban like self-employment opportunities in the village itself.

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“An Economic Analysis of Pomegranate Growers of Tumkur District of Karnataka”

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Abstract:

This study was directed in 2020-21 out of two talukas specifically Sira and Pavagada in Tumkur Region, Karnataka to grasp the economic performance of pomegranate producers. A sample of 90 pomegranate cultivators was chosen for the review utilizing the irregular inspecting strategy. According to the findings, more than half (55.24%) of pomegranate growers fell into the category of medium economic efficiency. Variables such as land ownership, farming experience, annual income, Participation in the expansion, contact with the expansion, scientific orientation, willingness to innovate, market orientation, education, media participation, and cosmopolitanism were positively and significantly related to the economic performance of the pomegranate producers. The biggest obstacle for the pomegranate growers was the fluctuating market prices. They suggested supplying disease-resistant varieties and regularly providing technical expertise to improve growing practices.

Keywords: Economic Analysis, Average Cost and Profitability, Curtailments, and Suggestions.

Introduction:

Pomegranates sometimes referred to as Dalim, Anar, and Matulum, are significant fruit crops cultivated in tropical and subtropical areas of India. Pomegranate cultivation began in ancient times and its growth is characterized by an arid climate. In Karnataka, pomegranate covers an area of 32,090 hectares with a production of 429 hectares 112,000 tons and a productivity of 12.51 tons per hectare (Department of Agriculture and Farmer Welfare, GOI, 2020-21). The predominant pomegranate growing areas are Chitradurga, Tumkur, Koppal, Bagalkot, Bijapur, Raichur, Belgaum, Bellary, and Dharwad. Pomegranate is grown commercially in Tumkur District. The pomegranate growing area in the county is 3,328.10 ha with a production of 35.40 thousand quintals with a yield of 10.64 quintals per hectare.

The national average pomegranate yield is 12.50 tons per hectare and the state-level average yield (Karnataka) is 12.51 tons

per hectare. Likewise, the average yield in the study area, Tumkur District, is 11.64 tons per hectare, which is lower than the national and state average yield and also lower than the potential yield, which is 41 tons per hectare. However, recent research has shown that there is great potential to further increase pomegranate yields and that not all growers are reaching their potential yields. In order to increase the production and productivity of fruit crops, the Government of India and the Government of Karnataka have implemented numerous horticultural development programs. A number of best agricultural production practices are recommended to achieve maximum benefit. However, farmers do not apply all recommended practices and their farming practices vary from farmer to farmer depending on profile traits, availability of inputs, and growing and marketing issues. In light of this, this study was carried out with the aforementioned precise goals in mind, such as comprehending the monetary

viability of pomegranate growers. Find the connection between economic performance and profile characteristics of pomegranate producers and also to seek restrictions and suggestions from grenade breeders.

Objectives:

1. The prime objective of the research is to analyze the economic fluctuations faced by the pomegranate farmers.

Research Methodology:

This research articles has used both primary and secondary for the collection of information. Samples of 90 pomegranate growers was selected for the study using the random sampling technique and also further various journals, websites, books have also referred in the research.

Resources and Techniques:

The review was led in the Tumkur area of Karnataka in 2020-2021. Tumkur Locale was purposely picked for the concentrate as it is a significant pomegranate maker and pomegranates are slowly turning

into a well-known organic product crop among ranchers in Tumkur Region because of regular dry spells and coming about occasional yield disappointments. Two taluks, Sira and Pavagada, have been chosen out of the area's 10 taluks as the areas with the largest pomegranate growth. The number of pomegranate ranchers available dictated the random selection of three Hoblis from each taluk. Six Hoblis were selected: Nidagal, Y.N. Hosakote, Gowdagere, Sira Kasaba Hoblis in Sira Taluk, and Sira Kasaba Hoblis of Pavagada Taluk. A sample of 90 pomegranate producers representing the two taluks was selected using an unconventional examination process. An ex post facto concentrate on the plan was utilized for the review. The financial result was estimated utilizing the strategy created by Shankaraiah and Squat (2017). The Economic Performance Index (EPI) for the pomegranate maker was determined utilizing the accompanying equation:

$$EPI = \left(\frac{\text{Value of total output in rupees for a period of one year}}{\text{Total expenditure in rupees incurred for a period of one year}} \right) \times 100$$

In light of the Economic Performance Index (EPI), producers were isolated into three classifications, with mean and standard deviation filling in as control measures. The acquired data was dissected using quantifiable tools and tests including

repetition, velocity, mean, standard deviation, and relationship.

Results and Conversation:

Financial execution of pomegranate makers:

Table.1: shows the pomegranate growers' overall economic performance (n = 90).

Economic Performance	Number	Percent
Low (<159.55)	22	24.44
Medium (159.55-172.40)	48	53.34
High (>172.40)	20	22.22

Mean=165.98

Standard Deviation=12.85

As per the aftereffects of Table 1, 53.34% of pomegranate makers were at the typical degree of monetary result, the low and high financial result each represented 24.44% and 22.22% respectively. Furthermore, the logical explanations behind the normal monetary result were higher yield efficiency and harvest esteem. Another explanation could be

more involvement in land proprietorship and horticulture, trailed by normal yearly pay, liberality, logical direction, development, and hazard-taking. The findings from Harish (2020) and Vinayak (2021) supported the findings of this study.

Investigation of Normal Expenses and Yields of Pomegranate Producers:

Table.2: Pomegranate farmers' average cost and return analysis (n = 90)

Average Yield (Quintal/acre)	Average Cost of Production (Rs./acre)	Average Gross returns (Rs./acre)	Average Net returns (Rs/acre)	Returns/Rupee of expenditure
20.50	1,25,850.00	3,35,650.00	2,09,800	2.67

Table 2 shows that the mean yield in the review region was 20.50 hundredweight per section of land, the typical expense of creation was Rs. 1,25,850 for each section of land, while the typical gross yield and normal net yield were Rs 3,35,650 and Rs 2,09,800

individually. The profit from interest in rupees was 2.67

The connection between financial execution and profile attributes of pomegranate makers:

Table.3: Interconnection between Economic Analysis and Pomegranate Growers' Profile Characteristics.

Sl. No.	Characteristics	Correlation coefficient
1	Age	0.042 ^{NS}
2	Education	0.244 [*]
3	Family type	0.122 ^{NS}
4	Land holding	0.322 ^{**}
5	Farming experience	0.342 ^{**}
6	Annual income	0.348 ^{**}
7	Mass media participation	0.248 [*]
8	Extension participation	0.347 ^{**}
9	Extension contact	0.372 ^{**}
10	Social participation	0.118 ^{NS}
11	Cosmopolitaness	0.223 [*]
12	Scientific orientation	0.326 ^{**}
13	Innovative proneness	0.293 ^{**}
14	Risk orientation	0.105 ^{NS}
15	Market orientation	0.342 ^{**}

^{**} Significant at 1 per cent level

^{*} Significant at 5 per cent level NS Non-Significant

The outcomes in Table 3 show that free factors, for example, land proprietorship, cultivating experience, yearly pay, expansion support, augmentation contact, logical direction, penchant to enhance, and market direction showed a huge relationship with the monetary exhibition of pomegranate cultivators at the 1% level. While factors, for example, instruction, media trade, and cosmopolitanism showed a huge connection with the financial exhibition of pomegranate ranchers at an importance level of 5%. Factors, for example, age, family type, social cooperation, and change direction had no huge relationship with the pomegranate makers' monetary exhibition.

There was a huge relationship between land possession and the financial exhibition of pomegranate producers. The possible explanation for the ground being higher will be for yield and related yields clever ranchers utilizing educated rehearse. A critical affiliation was tracked down between cultivating experience and pomegranate monetary execution. Potential reasons that pomegranate development experience prompts great contact with

promoting channels and great administration proficiency prompts higher benefits. Support in expansions and expansion contact showed a huge relationship with pomegranate producers' monetary exhibition. Potential reasons were that partaking in the extension helps pomegranate cultivators learn and comprehend development rehearses. Extending your contract will furnish you with the exhortation you want to build pomegranate producers' benefits. These outcomes are like those of Harish (2020).

The yearly pay is related fundamentally to the financial exhibition of the pomegranate makers. The explanation could be that the ranchers relied upon pay from developing pomegranates as well as taking part in other pay-producing exercises, for example, arable land, animal cultivation, poultry cultivating, and so on. The logical direction was additionally significant for their work. A potential justification for this could be that pomegranate ranchers had a more noteworthy capacity to apply new logical practices that brought about better returns. The consequences of this study were steady with those of Vinayak (2021).

The inclination to improve is related fundamentally to the financial exhibition of the pomegranate makers. A potential

justification for this could be that pomegranate rancher had the valuable chance to attempt new practices and endeavored to take on those practices that would prompt higher salaries. The aftereffects of this study were upheld by the consequences of Hairsh (2020). The association between market direction and the financial exhibition of the pomegranate makers was huge. A potential explanation could be that pomegranate producers with incessant market contact have adequate data and market knowledge to assist them with understanding the market interest, market cost, and showcasing channels. The outcomes concur with those of Ziaull (2017) and Strip (2018).

There was a huge connection between instruction and the financial presentation of pomegranate ranchers, as training assists people with keeping records, evaluating input-yield connections, and becoming mindful of market interest and market costs, which add to expanded benefits. The aftereffects of this study are predictable to those of Latha (2018) and Harish (2020).

The commitment to broad communications was fundamentally connected with the financial advancement of the pomegranate makers. The logical justification behind this was that openness to broad communications assisted them with social affairs and more data about new practices through radio, TV, papers, and other pomegranate-related distributions, which assisted them with getting extra advantages from pomegranate development. The consequences of this study were upheld by those of Vasanth Kumar (2019) and Harisha (2020).

The connection between cosmopolitans and the monetary execution of pomegranate cultivators was viewed as huge. The conceivable explanation is that the steady and rehashed openness to outside the social framework helped them in getting novel thoughts, abilities, and development rehearses which yields unexpected returns. The results of the review have similarities with the outcomes revealed by Thimmaraju (2019) and Harish (2020).

Curtailments of Pomegranate Producers:

Table.4: Pomegranate growers' curtailments (n = 90)

Sl. No.	Curtailments	No.	Percent	Rank
A	Production Curtailments			
	Lack of availability of quality seedlings	65	72.22	II
	Lack of irrigation facilities	70	77.78	I
	Lack of timely availability of inputs	46	51.11	IV
	Lack of timely availability of skilled labours	51	56.67	III
B	Technological Curtailments			
	Lack of knowledge and skill in identifying diseases and pests	78	86.67	II
	Lack of knowledge on post-harvest practices	72	80.00	III
	Difficulty in pest and disease management	83	92.22	I
	Lack of knowledge about pruning practices	36	40.00	IV
C	Marketing Curtailments			
	Lack of transportation facilities	28	31.11	VI
	Fluctuation in market price	90	100.00	I
	Lack of market information	71	78.89	IV
	Lack of market accessibility	38	42.22	V
	Lack of storage facilities	90	100.00	I
	Middlemen problem	79	87.78	III
D	Financial Curtailments			
	High cost of inputs	74	82.22	III
	Lack of credit facilities	80	88.89	I
	High initial cost for garden establishment	68	75.56	IV
	Delay in getting subsidies	76	84.44	II

The information in Table 4 shows rank-wise data about the creation, mechanical, advertising, and monetary requirements

looked at by the pomegranate cultivators in the examination region.

Creation Curtailments:

A basic investigation of the information uncovered that the absence of water system offices (first position), absence of accessibility of value seedlings (second position), absence of ideal accessibility of gifted works (third position), and absence of opportune accessibility of data sources (fourth position) were the significant Curtailments for pomegranate creation. The plausible reasons were unbalanced precipitation, persistent dry spell, groundwater exhaustion, sporadic power supply, absence of interest arranged supply of sources of info, troublesome and lack of stockpile of contributions by input organizations, urbanization, movement, and high work cost.

Innovative Curtailments:

The information shows that the mechanical imperatives like trouble in vermin and illness in the executives (first position), absence of information and expertise in recognizing sicknesses and irritations (second position), absence of information on post-gather rehearses (third position) and absence of information about pruning rehearses (fourth position) were the significant requirements. The potential reasons were the absence of specialized direction, unfortunate augmentation contact, low expansion cooperation, and absence of mindfulness about the significance of pruning and post-reap rehearses.

Advertising Curtailments:

The respondents saw that the significant showcasing imperatives were changed in market cost (first position), absence of storage spaces (second position), agents' issue (third position), absence of market data (fourth position), absence of market availability (fifth position) and absence of transportation offices (sixth position). The reasons may be the unpredictable market organic market, far-off market, absence of good contact with the advertising channels, and absence of mindfulness about market knowledge and data.

Monetary Curtailments:

The respondents communicated that the major monetary requirements were the absence of credit offices (first position), postponement in getting sponsorships (second position), significant expense of data sources (third position), and high beginning expense of nursery foundation (fourth position). The likely reasons were non-accessibility of credit, restricted endowment, lacking reimbursement time, intricacy in getting advance, and significant expansion in the expense of composts, plant assurance synthetic substances. The Curtailments announced in the current review have congruity with the discoveries of Shanabhoga (2019).

Ideas of pomegranate cultivators:**Table.5: Pomegranate Growers' Suggestions (n=90)**

Sl. No.	Suggestions	No.	Per cent	Rank
1	Providing technical know-how on improved cultivation practices of pomegranate	78	86.67	II
2	High quality grafts/seedlings should be made available by the Department of Horticulture through registered nursery	63	70.00	VIII
3	Providing technical know-how on post-harvest practices	65	72.22	VII
4	Provision of storage facilities at village level	50	55.55	X
5	Technical advice regarding integrated pest and disease management	76	84.44	III
6	Providing market information through various extension functionaries	72	80.00	V
7	Timely availability of inputs with reasonable prices	55	61.11	IX
8	Encouraging forming of commodity based organisations	48	53.33	XI
9	Providing comprehensive crop insurance	74	82.22	IV
10	Disease resistant varieties of pomegranate should be made available	85	94.44	I
11	Providing guidance on account keeping	41	45.56	XII
12	Direct selling of pomegranate through co-operative organisations	58	64.44	VI

The information in Table 5 shows the ideas of pomegranate cultivators. Significant ideas were the illness-safe assortments of

pomegranate ought to be made accessible (first position), giving specialized skills on superior development practices of

pomegranate (second position), specialized exhortation in regards to incorporated vermin and sickness the executives (third position), giving exhaustive yield protection (fourth position), giving business sector data through different augmentation functionaries (fifth position), direct selling of pomegranate through co-employable associations (sixth position), giving specialized ability on post-gather rehearses (seventh position), excellent unions/seedlings ought to be made accessible by the Branch of Cultivation through enrolled nursery (eighth rank), timely accessibility of contributions with sensible costs (ninth position), arrangement of storerooms at town level (tenth position), empowering framing of item based associations (eleventh position) and giving direction on account keeping (twelfth position).

The plausible purposes behind this sort of ideas that there is a gigantic misfortune because of vermin and sicknesses, absence of safe assortments, absence of mindfulness about superior development rehearses, trouble in irritation and illness the executives, crop misfortune because of climate variances, absence of market data and knowledge, mediators issue, cost vacillation, absence of mindfulness about post-gather rehearses, absence of accessibility of value seedlings, absence of interest situated supply of sources of info, unfavorable and deficient stock of contributions by input organizations, absence of storage spaces, go-betweens issue, far off business sectors and high transportation cost.

Conclusion:

All in all the discoveries show that a greater part of pomegranate producers remains in a decent position. Be that as it may, for additional improvement, line divisions ought to plan and carry out proper techniques to instruct ranchers on logical development rehearses. To defeat advertising and handling issues, appropriate measures and policies must be outlined by the Public authority to offer the least help cost for the produce notwithstanding the foundation of elite business sectors, cold capacity, and handling units. To expand efficiency and product potential there is a more noteworthy requirement for combination by uniting the expansion administrations, credit offices, and showcasing, stockpiling, and handling units under one umbrella.

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“A Concentrate on Semantic Web Dialects and Technologies”

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Abstract:

The World Wide Web (WWW) has changed the way people communicate, and the way information is disseminated and recovered. The word Semantic Web encompasses technologies that promise to greatly improve the current World Wide Web and its use. The Semantic Web is evolving rapidly in modern times with the improvement of technology from time to time. Semantics the network is promoted by the World Wide Web Consortium (W3C), the international standards organization for the web. The Semantic Web aims to help users better find, organize, and access information on the web. Normal language should be utilized to permit clients to utilize any site or application without any problem. This article gives us an overview of web languages and the technologies used today.

Keywords: XML, semantics, DAML, RDF, UDDI, W3C.

Introduction:

Tim Berners-Lee, the person who dreamed of the World Wide Web in the late 1980s, is the man behind the term "Semantic Web." In his vision, the relevance of data would be unquestionably more important than it is in the actual Web today. The improvement of the Semantic Web has a great deal of industry energy, and legislatures are financially planning vigorously. The U.S. government has laid out the DARPA Specialist Markup Language (DAML) Project and the Semantic Web are among the key activity lines of the European Association's 6th System Customized. Most data is at present accessible in a pitifully organized structure, for instance, text, sound, and video. From the information the board's point of view, the ongoing innovation experiences limits in the accompanying regions:

1. Looking for data for eg. organizations normally rely upon catchphrase-based web search tools, the limits of which we have illustrated.
2. For extricating data, human time and exertion are expected to peruse the recovered records for pertinent data.

Current insightful specialists can't convey this undertaking in a good design.

3. For keeping up with data at present there are issue for example, irregularities in phrasing and inability to eliminate obsolete data.
4. For revealing data new information verifiably existing in corporate data sets is separated utilizing information mining.
5. For review data, we are frequently attracted to limit admittance to specific data to specific gatherings of representatives. "Sees," which conceal specific data, are known from the area of information bases, however, are difficult to understand over an intranet (or the Internet).

The point of the Semantic web is to permit a significantly more high level information the executive's frameworks:

1. To such an extent that Information will be coordinated in calculated spaces as per their significance.
2. The mechanized instruments will uphold upkeep by checking for irregularities and extricating new information with the assistance of the semantic web.
3. The Watchword based search will be supplanted by the question replying;

mentioned information will be recovered, extricated, and introduced in a human cordial way.

4. In semantic web characterizing who might see specific pieces of data (even pieces of archives) will be conceivable by the semantic web.
5. Likewise, Inquiries responding to the north of a few records will be upheld in the semantic web.

Objectives:

1. To study the concept of semantic web.
2. To perceive the challenges and utilization of semantic web advances.

Research Methodology:

The method employed for the study is an auxiliary data-based research paper, and it is a fictitious inquiry work with a focus on Semantic Web technologies and dialects.

Semantic Web Advances:

We can sensibly guarantee that the difficulties to broaden the current intelligible web by encoding a portion of the semantics of assets in a machine-process capable structure, for the Semantic web are designing and innovation reception rather than a logical one: halfway answers for immeasurably significant pieces of the issue exists. As of now, the best necessities are in the space of combination, normalization, advancement of instruments, and reception by clients. In any case, obviously, further innovative advancement will prompt a further developed Semantic Web that can, on a fundamental level, be accomplished today. Advancements Utilized in Semantic Web:

Two significant innovations for fostering the Semantic Web currently in utilized are:

1. Extensible Markup Language (XML).
2. Framework for Source Identification (RDF).

Extensible Markup Language (XML):

XML allows us to make our own labels — secret names, for example, or that clarify Site pages or segments of text on a page. Scripts, or on the other hand, programs can utilize these labels in refined ways, in any case, the content essayist needs to understand what the page author utilizes each tag for. XML permits clients to add erratic construction to their archives but doesn't yet express anything about what the design is the utilization of means. The Semantic Web will empower machines to figure out semantic archives and information, not human discourse furthermore, works.

Importance is communicated by RDF, which encodes it in sets of triples, each triple being fairly similar to the subject, action word furthermore, and object of a rudimentary sentence. These triples can be composed utilizing XML labels. In RDF, a record makes declarations that specific things (individuals, Website pages, or whatever) have properties, (for example, "is a sister of," "is the creator of") with certain qualities (someone else, another Website page).

Framework for Source Identification (RDF):

Importance is communicated by RDF, which put codes in sets of significant increases, each triple being fairly similar to the subject, action word, and item of a rudimentary sentence. These triples can be composed using XML labels. In RDF, a record makes statements that specific things (individuals, Website pages, or whatever) have properties, (for example, "is a sibling of," "is the essayist of") with certain qualities (someone else, another Site page). This structure ends up being a characteristic method for portraying the huge greater part of the information handled by machines. The triples of RDF structure networks of data about related things. Since RDF involves URIs to encode this data in a record, the URIs guarantee that ideas are not simply words in a report but are attached to a remarkable definition that everybody can track down Online, envision that we approach an assortment of data sets with data about individuals, including their addresses. To find individuals living in a particular postal division, we want to realize which fields in every data set address names and which address postal districts.

Dialects Use in the Semantic Network:

Cosmology Dialects – Ontology's play a key role in the Semantic Web by providing a vocabulary that applications could use is used to find common dates. DAML+OIL is a metaphysical language specifically designed for use in the Semantic Web and was created by combining two metaphysical dialects, OIL and DAML. OIL contains the most important elements of the schema-based framework and the description justifications (DL) and has an RDF-based linguistic framework. DAML is even more integrated with RDF and enriches it with more native ontology's. Since DAML+OIL depends on the justification of the representation, the considered DL can be

used to (semantically) parse representations written in DAML+OIL. This provides a solid framework for characterizing and viewing portraits of Internet business administration.

Administration Description Language – Choosing the right administrative cosmology is an important part of the matchmaking model.

WSDL - WSDL (Web Administrations Definition Language) is an XML schema for conceptually representing web administration receive information and conventions for execution from the individual configurations. As correspondence conventions and message design are standardized among Internet users, it becomes possible and necessary to represent correspondence in an organized way. WSDL fills this need by characterizing XML punctuation to represent web administration as assortments of correspondence terminals equipped with commercial messages. WSDL administration definitions provide documentation to distributed frameworks and serve as a recipe for mechanizing the complexity of application reconciliation. However, WSDL does not support administrative description semantics. The model does not support the importance of consistent imperatives between its returns and associated outputs while having an idea of the types of information and outputs characterized by XSD.

UDDI - UDDI (General Depiction, Revelation, and Joining) is another emerging XML-based standard for representing web administration. It gives a company the ability to map its operations and administrations, find different organizations that deal with the required services, and bring these different organizations together, providing a library of organizations and administrations on the network. UDDI presents organizations based on their actual properties such as name, address, and administration that they provide. The UDDI representations are enhanced with several features called models that represent additional strengths, such as the administrative order in scientific categorizations such as the North American Industry Grouping Framework (NAICS). Since UDDI does not relate to administrative functions, the tModels used still only provide a tagging tool and the search performed ends up with matching strings in the specific fields that contain them. Therefore, it does not

apply to searches for administrations based on the semantic details of their adequacy.

DAML-S Licenses – DAML-S network professionals work with a central markup build orchestra to understand properties and capabilities of their web administrations into a unique structure that can be interpreted by a computer. DAML S-Tags for web administration should facilitate the tasks of robotic web administration, including disclosure, execution, interoperability, structure, and execution of robotic administration. In DAML-S, administrator portraits are divided into three basic types of information: Service Profile, Service Model, and Service Grounding. The service profile is widely expected in the membership cycle as it provides the data a professional expects to find an administration that suits their needs.

Cutoff points of Today's Web:

With the present status of the Internet, there are just two genuine strategies for acquiring more extensive data about reports. The first is to utilize an index or gateway site, and subsequently depend on human editors to scour the Internet and properly order pages what's more, their related connections.

Such gateways are the legends of the present Web. All things considered, the best data the executive's instrument on Earth is still the human administrator, and presumably will be into the indefinite future. The issue is that registries require colossal work to keep up with. Tracking down new connections, refreshing old ones, and keeping up with the information base innovation add to an entry's authoritative weight and working expenses.

Web crawlers are the other option. Great web crawlers really focus on metadata in the pages that they bug, what's more, add to their list data sets. In the most straightforward case, this metadata could appear as happy in <meta> labels. More high-level web search tools, similar to research, depend on more inconspicuous data. For example, Google's generally promoted calculation assesses not just the event of watchwords on a page, yet likewise, the number of external connections to the actual page, as a proportion of its significance or ubiquity.

Web search tools require less human exertion on the substance the executives end, yet they require terribly huge asset speculation. Delivering important indices is

additionally truly challenging proficiently. It's an obvious fact that the absolute generally progressed web crawlers are crude to the point that questions frequently turn up an unmanageable number of inadequately separated hits.

The Internet needs to help in the middle between gateways also, web search tools. Obviously, until there's a server as modern as HAL 9000 (however, ideally, not as a hypochondriac), we presumably will not have the option to supplant the human totally entry manager with a PC program. However, on the off chance that we could give normalized means to Web distributors to inventory and order their own substance, then we could foster more successful specialists that work on this substrate of better-coordinated data.

The consequence of having better standard metadata would be a Web where clients and specialists could straightforwardly tap the idle data in connected and related pages. This would help free us from being required to scour for data site by site, and from depending on entryways and web crawlers. It wouldn't be hard to outfit every client with individual entryway generators and search specialists custom-made to their specific advantages, needs, and limitations. These specialists could try and be arranged to learn what's more, answer individual subtleties with the assistance of fake knowledge methods.

The Semantic Web's Difficulties:

It's fine to discuss empowering each Internet distributor to appropriately place content in settings, yet there are a few issues to beat before any such drive will acquire the minimum amount:

1. **The intricacy to grow:** Any innovation that the normal Web designer can't get a handle on in a day and apply capably in seven days is ill-fated. Furthermore, a fruitful innovation should be incorporated into current Web advancement and upkeep devices. Semantics are very hidden, and it will not be simple for semantic innovations to meet this model.
2. **Control of misuse:** Practices like meta-tag spamming, and indeed, even brand name commandeering, show that any framework that lets individuals set their own settings is liable to manhandle. Knowing the worth of the Burton snowboards brand, another deceitful maker should tell a specialist that it is

the Burton Organization in order to guide some gratuitous regard for its site. Semantic Web innovations will require a generally mechanized framework for laying out trust in the affirmations that Internet distributors make. This idea is frequently alluded to as the Trap of trust.

3. **Open for execution:** In view of the variety of engineers and improvement devices, Semantic Web innovation should be strategically and in fact open for execution and use. On the off chance that it requires eminence installments to any party, open source advocates and contending web innovation sellers will blacklist it. If it requires a particular module or module, most designers and clients won't try introducing it.

Why Semantic Innovations?

The word semantic innovations address a genuinely different group of innovations that have been present for a long time and look to assist with getting importance from data. Instances of semantic innovations incorporate normal language handling (NLP), information mining, man-made reasoning (computer-based intelligence), classification labeling, and semantic pursuit. A few instances of existing semantic advancements being utilized today include:

1. **Regular language processing(NLP)** advances endeavor to handle unstructured text content and concentrate the names, dates, associations, occasions, and so on that are discussed inside the text.
2. **Information mining:** Information mining advances utilize pattern-matching calculations to coax out patterns and relationships inside enormous arrangements of information. Information mining can be utilized, for the model, to distinguish dubious and possibly false exchanging conduct enormous data sets of monetary exchanges.
3. **Man-made brainpower or master frameworks:** Artificial intelligence or master framework innovations utilize elaborate thinking models to answer complex inquiries naturally. These frameworks frequently incorporate AI calculations that can further develop the framework's dynamic abilities over time.
4. **Order:** Grouping innovations use heuristics, what's more, rules to label

information with classes to assist with looking at and investigating data.

5. **Semantic hunt:** Semantic inquiry advancements permit individuals to find data by the idea rather than by catchphrase or key expression. With semantic pursuit, individuals can effectively recognize looking for John F. Kennedy, the air terminal, and John F. Kennedy, the president.

Web search tools require less human exertion on the substance the executives end, yet they require terribly huge asset speculation. Delivering important indices is additionally truly challenging proficiently. It's an obvious fact that the absolute generally progressed

web crawlers are crude to the point that questions frequently turn up an unmanageable number of inadequately separated hits. The Internet needs to help in the middle between gateways also, web search tools. Obviously, until there's a server as modern as HAL 9000 (however, ideally, not as a hypochondriac), we presumably will not have the option to supplant the human totally entry manager with a PC program. However, on the off chance that we could give normalized means to Web distributors to inventory and order their own substance, then we could foster more successful specialists that work on this substrate of better-coordinated data.

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1. **Student-driven:** Learning materials, potentially by various creators, can be connected to regularly concurred ontologies. Customized courses can be planned through semantic questioning, and learning materials can be recovered in the setting of genuine issues, as chosen by the student.

2. **Adaptable access:** Information can be gotten to at any request the student wishes, as per her inclinations and requirements. Of course, the proper semantic comment will in any case set limitations in situations where requirements are important. Be that as it may, generally speaking, nonlinear access will be upheld.

3. **Incorporation:** The Semantic Web can give a uniform stage for the business cycles of associations, and learning exercises can be coordinated in these cycles.

Utilization of Semantic Web Advances:

In day to day existence Semantic Web innovations that are changing medication revelation and medical care are being applied to more broad circumstances. One model is Science Center, which makes a difference in analysts transparently posting information Online. The charity association gives Semantic Web devices to join legitimately restricting copyright and authorizing data to that information. This capacity permits a researcher, for instance, to teach a product applet to go get data about a specific quality — yet just data that accompanies a free permit. DBpedia is a work to sagaciously connect data inside Wikipedia's 7,000,000 articles. This venture will permit Web surfers to perform point-by-point searches of Wikipedia's substance that are inconceivable today, for example, "Track down me every one of the movies selected for a Best Picture Foundation Grant before 1990 that ran longer than three hours." As applications create, they will dovetail with research at the Internet consortium and somewhere else pointed toward satisfying the Semantic Web vision. Agreeing on guidelines can be slow, and some doubters keep thinking about whether a major organization could overwhelm this work by advancing a bunch of exclusive semantic conventions and programs. Yet, note that various organizations and colleges are engaged with the consortium's semantic working gatherings.

That's what they understand in the event that these gatherings can devise a couple of well-designed conventions that help the broadest Semantic Web conceivable, there will be more space coming down the line for any organization to bring in cash from it. A few spectators likewise stress that individuals' protection could turn into

compromised as additional information about them from different sources is interlinked. In any case, Semantic Web advocates contend that the securities are equivalent to those utilized in the non-connected world. On the off chance that two data sets joined by the Semantic Web have unique security measures, then, at that point, the product should respect the two sets of rules and make a set that covers both. At the point when SAPPHIRE joins patient information bases, it sticks to the protection necessities of both or it will not continue; the medical caretakers who had previously played out similar consolidations physically forced something similar practice.

The Semantic Web will probably function more quietly than the Internet. We won't understand how it assists Eli Lilly with making customized drugs; we'll simply get them. We won't know how Vodafone makes cool ringtones so promptly accessible, yet we'll see the value in the fact that they are so natural to download. But, soon enough the Semantic Web will give us a more straightforward capacity to us, as well,

permitting us to go on eBay and not simply say "track down me the Toyota Priuses available to be purchased" yet "track down me just utilized, red Priuses available to be purchased for under \$14,000 by individuals who are inside 80 miles of my home and make them an offer." Amazing dreams rarely come true exactly as planned, but the Semantic Web is undoubtedly developing and making online data more useful than at any previous point in recent memory.

As per Peter Mika in his paper, Flink is a show of the expert work and social network of Semantic Web analysts. This people group is those specialists who have submitted distributions or held a sorting out job at any of the past Worldwide Semantic Web Gatherings (ISWC02, ISWC03, and ISWC04) or the Semantic Web Working Discussion (SWWS01). These implies a local area of 608 specialists from both the scholarly world and industry, covering a significant part of the US, Europe, and to a lesser degree Japan and Australia (see Figure 1).



Figure 1: shows the connections between Semantic Web researchers around the world.

Conclusion:

This paper has given an outline of the creating Semantic Web foundation, shown how this connects with run-of-the-mill hypermedia research themes and given extensive pointers to sign writing. Four significant areas of exploration that should be addressed to permit the Semantic Web to understand its maximum capacity have been depicted. Initially, hypertext research was meant to bring client communication with carefully put-away data nearer to the semantic relations implied inside the data. A significant part of the more "hypertext-explicit" research, nonetheless, went to

framework and application-situated themes, perhaps through the absence of an accessible framework to support more unequivocal semantics. The presentation of the Internet, as an exceptionally circulated, yet somewhat straightforward, hypermedia framework has additionally affected the personality of hypermedia research. The presence of XML and RDF, alongside improvements like RDF Diagram and DAML+OIL, gives the driving force to understand the Semantic Web. During these beginning phases of its turn of events, we need to guarantee that the numerous hypertext examples learned in the past won't be lost, what's more, that future

exploration handles the most pressing issues of the Semantic Web.

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“An Investigation of Green Retailing and its Indian Consumers' Perspectives and Purchase Expectations”

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Abstract:

The green movement is becoming mainstream in today's business world. All over the world, associations are developing green strategies and are striving to develop a CO₂-free scenario. Retail is as old as a business, trade, and crafts, now it has changed into new structures and fields of activity. With the commercial realm very urgent, retailers are still left with no choice but to consider and understand eco-friendly practices. Retailers are the main link between manufacturers and customers and are committed to environmentally friendly items and environmentally conscious use. Green Retailing (GR) offers an organizational approach aimed at natural protection to improve the supply chain by eliminating waste, increasing efficiency, and reducing costs. The next thing to note is that retailers understand the wisdom and sentiment of customers regarding the green image of retailers. The goal is to explore the elements that influence customers' green shopping behavior and how these green store status signals can influence shopping recommendations, just like their non-green accomplices in an Indian setting. The data was obtained through the dissemination of online surveys and the use of a secondary data collection source. Problems associated with green retail have been identified as the credibility of biological cases, customer understanding and perception of green things, things that appear in retail stores and money-related, and developing a common sense for pleasurable exercises required for the Retail characteristics are identified. Express issues and incentives for Indian resellers are covered. The rating is modeled on the Indian model and typically does not summarize information and does not describe the retail sector.

Keywords: Green Retail Intent, Individual Attitude, Green Products.

Introduction:

Green Movement is becoming a buzzword in today's business world. Around the world, the vast majorities of parties has been grappling with the consequences of the ecological explosion and have contributed a significant amount of open understanding of environmental change and governance of vitality. Organizations around the world are developing green practices, making strides in building a low-carbon stadium, and working to improve the carbon productivity of existing components and chassis. Retail is one of the most dynamic and fastest-growing sectors in the world. After the currency close, the global retail sector continues to grow, with the top 250 retailers increasing their retail sales. Nearly 60% of the top 250 retailers in the world operate in many countries, and of those

147 companies, 115 have their primary operations in multiple countries, according to Deloitte's Worldwide Powers of Retailing, 2014 report. Given their growing financial importance, retailers are moving towards a critical intensity position. The outcomes of externalities caused by their actions are impacts on society, the situation, and the lifestyles of buyers (McGoldrick, 2002). From time to time these merchants are reprimanded by various partners for their socially irresponsible strategic policies (Wagner, Bicen, et. Corridor, 2008). According to the Deloitte report titled "Feeling the Crush Global Powers of Retailing" (Deloitte, 2009), 66% of the world's 250 largest retailers have adopted specific CSR standards to create a positive impression among various partners. In today's retail industry,

companies strive to reduce expenses, streamline supply chains, enhance branding and marketing efforts, and promote eco-friendly practices.

Green Marketing in Retail:

In today's highly competitive world, it is very difficult for retailers to keep up with rapidly changing trends. With a large percentage of the total population being health conscious, green marketing is proving to be an important step retailers should take to increase sales and maintain brand reputation. Many retail giants like IKEA, Apple, Nike, and Walmart have introduced new green and eco-friendly practices to appeal to very conscious audiences. The eco-friendly practices adopted by retailers include: - Eliminate paper bills and replacing them with technology, building stores around eco-friendly practices, IKEA buying 100% paper, wood, and cardboard from sustainable sources, and H&M customers can get recycling discounts for their clothes. Jeans are also made from recycled clothing under this brand. However, in consumer-driven markets, retailers also need to know and understand the needs and wants of their customers. You also have to think very wisely about how, where, when, and at what price those products will be made available to customers in those markets. Also, customers are picky about their purchasing decision, which requires a strong follow-up advertising campaign. Retailers then began capitalizing on sales opportunities to attract new customers, win back loyal customers, and increase lead repurchase rates.

Review of Literature:

Akehurst et al. (2012) examined the determinants of environmentally conscious consumer behavior (ECCB) based on the structure of customer profiles (social and psychographic segments). The study further explored the determinants of strong green purchasing behavior (GPB) by decomposing ECCB and green purchasing intent (GPI) from previous research. Therefore, analysts conducted an internet study and concluded that psychographic factors are more important than segmental ones in depicting ECCB and that there is a positive association between ECCB and GPI. Likewise, the ECCB has a greater impact on the GPB than the GPI.

Philip Kotler (2011) stated that companies must intensively improve their innovation work, creation, financial testing,

and advertising in order to achieve maintainability. In any case, in addition to the accompanying measures, several challenges need to be addressed, such as changes in air organization, ozone depletion, land degradation, and widespread desertification, as well as widespread air pollution and some water pollution. Fortunately, green advertising has emerged as an innovative idea that is more desirable than others from an environmental point of view. The green action combines a wide range of exercises, including object retouching, manufacturing process changes, assisted stamping, and sound customization. However, characterizing green support is certainly not a fundamental endeavor in which several implications overlap and contradict each other; an example of this is the existence of changing social, natural, and commercial definitions associated with the term. Other comparable terms are nature promotion and environmental presentation.

According to Ottman (1992), customers buy organic products because they are in good condition, but these products must be readily available, of good quality, and at a reasonable price (Ottman, 1992). While Roberts (1996) states that environmentally conscious shoppers want to buy environmentally friendly products because they improve environmental impact and mitigate the terrible effects of various pollutants. (Roberts, 1996)

Polonsky (2011) states that exercises equated to the creation, use, and use of lower-impact resources contribute to the development of an ecological presentation and have positive externalities (Polonsky, 2011).

Soonthorsmai (2007) observed that people who are increasingly concerned about natural problems tend to buy organic products in general, and this trend is increasing over time. (early May 2007)

There are many different factors that actually motivate green consumers to buy green retail products. Extensive work over the years has documented a better understanding of ecological issues; availability of information on environmental sustainability; green corporate advertising; taking care of the environment; increasing acceptance of organic products by charities with social and environmental value as distinct factors. In the face of this huge increase in general environmental awareness

among different consumer profiles, companies have tried to 'go green' by presenting a business concept (Banerjee, 2003; Hay and Lichter, 2000). Green building is now seen as an incentive for companies to strengthen their market position and not as a behavior to follow.

Green purchase intent refers to the desire to buy and use goods with eco-friendly characteristics only when the purchase criteria depend on the characteristics of the product and the company's country of origin (Nik Abdul Rashid, 2009). However, the quality of eco-friendly products, such as detailed product ingredient information, eco-labels, brand presentation, and overall safety of usability, influenced consumers' eco-friendly purchasing decisions (Maniatis, 2015; Tseng and Hung, 2013). To sway consumers' purchase choices, manufacturers plant ideas about the possible effects of green products in their heads (Rex and Baumann, 2007, p. 567). (Matteo et al., 2013; Zao et al., 2014)

Research Gap:

The research gap was identified after a review of relevant literature on the green retail sector from a global and national perspective. Many studies have been conducted on consumer attitudes and reasons for buying organic products. However, the reasons that prevent customers from buying organic products have not yet been sufficiently researched. Therefore, based on the above definition, a research gap has been clearly identified and the research objectives are set based on the research gaps.

Research Methodology:

The analysis in the paper is based on data collected through an online questionnaire designed to understand Indian shoppers' attitudes toward organic products and the factors influencing their purchasing intentions. In addition to demographic and awareness data, each question was entered to gather data on customer attitudes and their relationship to economic characteristics, factors that determine purchase intent. Responses from 250 customers were collected.

Research Objectives:

1. To identify the factors underlying Indian customers' purchase intent towards products sold in the organic market.
2. To find the hurdle for organic products and what stops customers from buying organic products.
3. To determine the attitude of Indian customers towards organic products.

Hypothesis:

1. **H1:** There is a close relationship between customer attitudes and their socio-economic character.
2. **H2:** Concern about the environment is the most important factor that determines the customer's purchase intention in the future
3. **H3:** A high price discourages the intention to buy organic products
4. **H4:** Lack of awareness is a barrier to purchasing an organic product

Examining and Interpreting:

Table 1: demonstrating Indian consumers' perceptions of green marketing products

SL.NO	PARTICULARS	FREQUENCY	PERCENTAGE
1	Strongly agree	89	35.4
2	Agree	132	52.9
3	Undecided	25	10.1
4	Disagree	4	1.6
5	Strongly disagree	0	0
	Total	250	100

From the table above we can see that 52.9% of respondents agree that organic products have a positive impact on the environment, which means that most respondents have a positive attitude towards organic products. 35.4% of respondents totally agree that

organic products have a positive impact. However, none of the 250 respondents believed that organic products could have negative effects, so the general attitude was very positive.

Chart 1: demonstrating Indian consumers' perceptions of products using a green marketing strategy

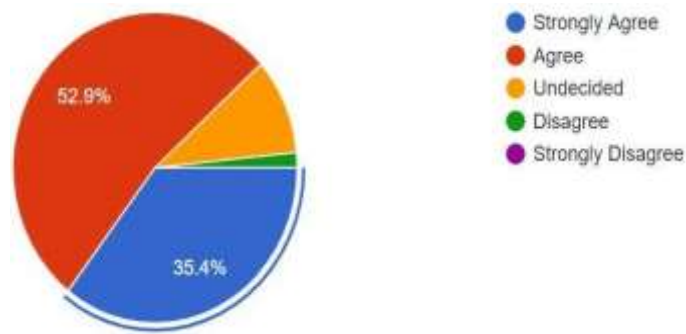


Table 2: displaying socioeconomic characteristics and attitudes regarding items advertised as being green.

Socio economic characters	Chi-square value	P-value	Result
Gender	0.746	.000	Significant
Age	3.121	.001	Significant
Education	2.573	.000	Significant
Occupation	2.532	.000	Significant
Monthly income	3.586	.001	Significant

The chi-square test was previously used to investigate the relationship between financial status and consumer attitudes toward environmentally friendly products. The inquiry may conclude with a p-value of 0.01 that the false theories are rejected at a

1% level of seriousness. As a result, the unfounded theory is quite strong. This demonstrates the tight connection between a person's financial status (monthly income) and their attitudes towards environmentally friendly products. H1 is therefore approved.

Table 3: displaying the variables influencing Indian buyers' buying intentions

Statement/factor	S.A	A	N	DA	SDA	Total
Future concern regarding climate change	9 (34.6%)	7 (26.9%)	5 (19.2%)	3 (11.5%)	2 (7.6%)	26 (100%)
Belief that green products enhance quality of life	11 (34.3)	9 (28.1%)	7 (21.8%)	2 (6.2%)	3 (9.3%)	32 (100%)
Environmental protection responsibility	10 (33.3%)	8 (26.6%)	5 (16.6%)	4 (13.3%)	3 (10%)	30 (100%)
Gives high level of satisfaction	13 (37.1%)	9 (25.7%)	4 (11.4%)	7 (20%)	2 (5.7%)	35 (100%)
Use/liked by peer or family	10 (31.25%)	8 (25%)	5 (15.6%)	6 (18.75%)	3 (9.3%)	32 (100%)
To express public preference	8 (22.2%)	11 (30.5%)	7 (19.4%)	6 (16.6%)	4 (11.1)	36 (100%)
Because it'll bring positive impact on the environment	1 (35.7%)	7 (25%)	5 (17.8%)	4 (14.2%)	2 (7.1%)	28 (100%)
Feel they are good for health	9 (29.0%)	7 (22.5%)	6 (19.3%)	5 (16.1%)	4 (12.9%)	31 (100%)
Total	80 (32%)	66 (26.4%)	44 (17.6%)	37 (14.8%)	23 (9.2%)	250 (100%)

From the table above you can see that the majority of respondents (37.1% of respondents) firmly believe that they are likely to buy an organic product because it gives them some level of satisfaction. 35.7% of respondents totally agree as organic products will have a positive impact on the environment and 34.6% would likely buy

organic products due to future concerns about climate change. These three factors were the main factors influencing customers' purchase intentions. Since concern for the future environment is not the main reason behind the customer's purchase intention, H2 is rejected.

Table 4: Outlining the main obstacles to acquiring green retail items

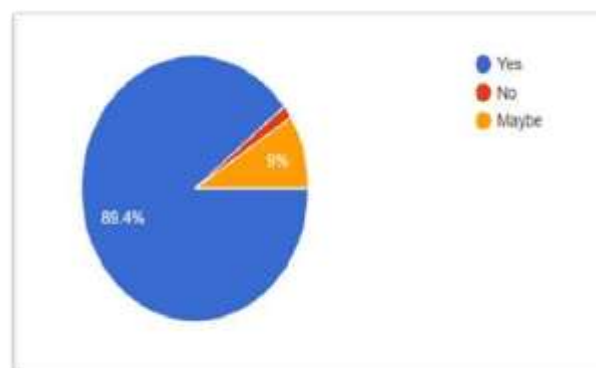
SL.NO	Barrier	Mean score	Rank
1	High price	62.58	1
2	Happy with the non-green products	56.5	7
3	Doubts about performance ability	58.82	5
4	Uncomfortable to use	57.47	6
5	No proper Awareness	60.46	3
6	Limited availability	61.29	2
7	Don't make genuine difference to the environment	51.48	8
8	Not marketed well	59.36	4
9	I'm not environmentally friendly	50.52	9

After applying the Loft classification to the data, it was found that the main barrier to purchasing organic products was the high price. Therefore H3 is accepted. Second, the only price was limited availability. The third reason that discourages people from buying organic products is a lack of awareness, which means that lack of awareness is a

barrier to the intention to buy organic products. Therefore H4 is accepted.

Respondents were also asked whether they would be willing to buy organic products if they were priced below normal. 89.4% of the respondents answered "Yes", 9% "Maybe" and only 1.6% answered "No".

Chart 2: displaying readiness to purchase eco-friendly goods



Conclusion:

The work in this article was conducted to analyze consumer attitudes and purchase intentions in India toward organic products marketed and sold by retailers. In order to access the necessary data, a questionnaire was developed that provided information on how Indian shoppers generally react and behave towards eco-friendly retail products. Looking first at the findings on the relationship between

customer attitudes, environmental awareness, appearance awareness, and health awareness, it was found that these are important for predicting customer and consumer attitudes and purchase intentions towards organic products. Although various factors have discouraged people from buying organic products, the high price and limited availability of organic products have been identified as the main factors. The concept of green marketing is still a modern

phenomenon and according to First and Khatriwal (2008), there is too much to contemplate. However, some of the above studies clearly show that consumer awareness of eco-friendly brands and products is growing. Brands are able to change customer perceptions. Likewise, successful advertising campaigns have the potential to trigger a shift in customers willing to pay more for sustainable shopping habits and pay a higher price for durable goods. With more and more customers adopting an eco-friendly lifestyle lately, organic retailers need to find ways to eliminate the factors that are keeping the rest of the population from buying their products.

The responses received and the data collected represent only a very small proportion of the total population and can therefore only be used to understand the attitudes and purchase intentions of a limited sample. The results and analysis of this study can help other retailers to understand what Indian customers expect from them, which can then be used to improve retailers' marketing techniques. In addition, since the high price is considered the main reason why people do not want to buy organic products, it can be advantageous to reduce marketing and advertising costs for products in order to make them more widely available at a lower price.

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“A Scrutiny on Position and Competence of India's MSME Sector”

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Abstract:

Micro, small, and medium-sized enterprises (SMEs) contribute significantly to entrepreneurship development through business innovation. MSMEs extend their reach into different economic sectors and produce a wide range of products and services to meet national and global market demands. MSMEs in India play a key role in providing high employment opportunities with relatively lower capital costs than large industries and in industrializing rural and backward areas, reducing regional imbalances by, among other things, ensuring a more equitable distribution of national income and wealth. This article focuses on the crucial role of MSMEs and the performance of different sectors in India.

Keywords: Estimated MPMI, Characteristics by Gender, Role, and Achievement, Social Group, Estimated Occupation.

Introduction:

The micro, small and medium-sized enterprise (MSME) area has formed into a powerful area of the Indian economy throughout recent years. It contributes altogether to the nation's financial and social improvement by supporting business ventures and setting out various work open doors with generally lower speculation costs, outperforming just horticulture. MSMEs supplement huge enterprises as auxiliary units and the area contributes altogether to the country's comprehensive modern turn of events. MSMEs broaden their venture into various financial areas and produce many items and administrations to meet public and worldwide market needs. The Service of micro, small, and medium-sized enterprises takes a stab at a high-level MSME area by advancing the development and improvement of the area, including the khadi, town, and coir enterprises, in collaboration with important services/divisions and state and neighborhood legislatures to empower to existing organizations by presenting cutting-edge innovations and empowering the production of new organizations.

Micro, Small, and Medium-Sized Enterprises:

Under the provisions of the Micro, Small, and Medium Enterprises Development Act (MSMED) 2006, micro, small and medium-sized enterprises (MSMEs) are classified as:

1. A micro-enterprise whose investments in machinery and equipment or equipment do not exceed a base of one rupee and whose turnover does not exceed a base of five rupees;
2. a small business whose investment in machinery and equipment does not exceed the Rs. ten basis and whose turnover does not exceed the Rs. fifty basis; and
3. A medium-sized undertaking whose interest in hardware and gear or gear doesn't surpass the foundation of fifty rupees and whose turnover doesn't surpass the lower part of 200 and fifty rupees.

Literature Review:

Kankipati et al. (2017) found that entrepreneurship generally refers to all activities undertaken by the owner to start and operate a business for profit. The micro, small, and medium-sized enterprise (MSME) area has formed into a powerful area of the

Indian economy throughout recent years. Over the past 50 years, the MSME sector has grown into an extremely vibrant and dynamic segment of the Indian economy. In the last 7 years, MSME employment has increased steadily and MSMEs offer more job opportunities.

Ujjal Bhuyan (2016) examined that the micro, small, and medium-sized enterprises (MSME) area has turned into an extremely powerful area of the Indian economy. MSMEs do not just assume a key part in giving high business potential open doors at moderately lower venture costs than huge enterprises yet additionally add to the industrialization of provincial and in reverse regions, in this manner decreasing local irregular characteristics and guaranteeing a more impartial conveyance of pay and public riches. MSMEs coordinate significant enterprises as auxiliary units and this area contributes altogether to the country's financial turn of events.

Subramanian et al. (2019) brought up that the significance of MSMEs has been perceived lately in both created and emerging nations, as they make a huge commitment to the accomplishment of different financial objectives like higher work development, higher creation, send out advancement, and business support. They assume a vital part in the modern improvement of any country. The MSME area is a significant mainstay of the Indian economy as it contributes altogether to the development of the Indian economy. The area is significantly more significant now

as the nation moves towards a quicker and more comprehensive development plan.

Paramasivan C and Mari Selvam P (2013) expressed that the commitment of the micro, small, and medium-sized endeavor (MSME) area to the nation's creation, business, and products is very huge. It is assessed that this area is liable for around 45% of modern creations and 40% of complete products of India. The MSME area utilizes around 42 million individuals in the north of 13 million units the nation over. There are in excess of 6,000 items, going from conventional to cutting edge, produced by Indian MSMEs

Objectives:

1. To execute the evaluation of MSMEs areas in India
2. To examine the job of MSMEs in the country and metropolitan regions.

Research Techniques:

The examination is upheld by optional information. Studies and writing surveys were chosen from distributed reports and exploration sources. Different distributed reports like the MSME Yearly Report 2020-21 and the sites of the Service of Micro, Small, and Medium Enterprises, Government of India, and so forth are additionally counseled.

Investigation and Translations:

This study depends on auxiliary information sources, including the rate strategy used to break down the job and execution of MSME areas.

Table 1: Estimated MSMEs, Organized by Activity

Activity Category	Estimated Number of Enterprises (in Lakh)			
	Rural	Urban	Total	Percentage
Manufacturing	114.14	82.50	196.65	31%
Electricity	0.03	0.01	0.03	0%
Trade	108.71	121.64	230.35	36%
Other services	102.0	104.85	206.85	33%
All	32.488	309.00	633.88	100

Source: MSME Annual Report for 2020-21

The table above shows that the assessed number of MSMEs is communicated regarding action. The Micro area, with an expected number of endeavors of 630.52 lakhs, represents over the vast majority of

the assessed complete number of MSMEs. Small area at 3.31 lakh and medium area at 0.05 lakh. MPME is assessed at 0.52% or 0.01% of all assessed MPMEs. Of the assessed 633.88 MPME, 32,488 lakh MPME (51.25%)

are situated in provincial regions and 309
absences of MSMEs (48.75%) are situated in

metropolitan regions.

Table 2: shows the number of businesses owned by women in urban and rural locations.

Sector	Male	Female	Total percentage
Rural	77.76	22.54	48.80 %
Urban	81.58	18.42	51.20%
Total	159.34	40.96	100%

Source: MSME Annual Report for 2020–21

The table above shows that business possession in rustic and metropolitan regions depends on orientation. The vast majority of the organizations are situated in metropolitan regions (54.20%). The excess 48.80% are organizations situated in rustic regions. In this unique circumstance, the orientation order of rustic ranches with up to male proprietors is in lakh 77.76 and the

excess 22.54 organizations are in the female proprietor class. A high of 81.58 lakhs for organizations in the men's classification and an excess low of 18.42 lakhs for women-possessed organizations.

Table 3: Distribution of Enterprises owned by Male and Female Entrepreneurs(in Lakhs)

Category	Male	%	Female	%	Total
Micro	79.56	29.28	20.44	72.04	100
Small	94.74	34.87	5.26	18.54	100
Medium	97.33	35.83	2.67	9.41	100
Total	271.63	100	28.37	100	300

Source: MSME Annual Report for 2020–21

It has been explained over that the division is between organizations claimed by male and female business visionaries. Micro entrepreneurs are 29 years old. 28% of organizations in the male classification and 72.04% of organizations in the female class. Entrepreneurs represent 34.87% of male-

claimed organizations and 18.54% of female-possessed organizations. Moderate-sized businesses people make up 35.83% of organizations in the male class and 9.41% of organizations are women.

Table 4: shows the distribution of businesses by owner's social group in rural and urban areas.

Sector	SC	ST	OBC	Others	Not known	All
Rural	15.37	6.70	51.59	25.62	0.72	100.00
Urban	9.45	1.43	47.80	40.46	0.86	100.00
All	12.45	4.10	49.72	32.95	0.79	100.00

Source: MSME Annual Report for 2020–21

The above table made sense of that the conveyance of undertakings by a gathering of proprietors in country and metropolitan regions. The socially in reverse gatherings possessed practically 66.27% of MSMEs. The main part of that was possessed by OBCs (49.72%). The portrayal of SC and ST proprietors in the MSME area was low at

12.45% and 4.10% separately. In provincial regions, practically 73.67% of MSMEs were possessed by socially in reverse gatherings, of which 51.59% had a place with the OBCs. In metropolitan regions, practically 58.68% had a place with the socially in reverse gatherings, of which 47.80% had a place with the OBCs.

Table 5: Social Category Distribution of Businesses

Sector	SC	ST	OBC	Othes	Not Known	All
Micro	12.48	4.11	49.83	32.79	0.79	100
Small	5.50	1.65	29.64	62.82	0.39	100
Medium	0.00	1.09	23.85	70.80	4.27	100
All	12.45	4.10	49.72	32.95	0.79	100

Source: MSME Annual Report for 2020-21

The above table got that conveyance free from undertakings social class wise. The examination of ventures claimed by socially in reverse gatherings in every one of the three portions of the MSME area uncovers

that the Micro area had 66.42% of undertakings possessed by socially in reverse gathering, while Small and medium areas had 36.80% and 24.94% of endeavors claimed by socially in reverse gatherings, separately.

Table 6: MSME Sector Estimated Employment (Activity-wise)

Category	Employment (in lakh)			
	Rural	Urban	Total	%
Manufacturing	186.56	173.86	360.41	32
Electricity*	0.06	0.02	0.07	0
Trade	160.64	226.54	387.18	35
Other services	150.53	211.69	362.22	33
All	497.78	612.10	1109.89	100

Source: MSME Annual Report for 2020-21

**Generation and transmission of non-captive power*

The above table assessed work in the MSME area. MSME area has been making 11.10 center positions (360.41 lakhs in Assembling, 0.07 lakh in Non-hostage Power Age and Transmission, 387.18 lakhs in Exchange and 362.82 lakh in Different Administrations) in the rustic and metropolitan regions the nation over. Proclamation No. 2.7 and Figure 2.5 shows the conveyance of MSMEs action wise

Conclusion:

The Public authority has taken measures to work on efficiency, in the most recent 7 years the MSME commitment to Gross domestic product has not expanded to a satisfactory level. The assessed number of exchange actions in contrast with metropolitan and provincial is more than metropolitan regions covered to high exchange and other MSME exercises. The orientation base proprietorship ventures in provincial and metropolitan regions nearly metropolitan region male possession profoundly impact the MSME action. Appropriation of endeavors possessed by male and female business people was racing to medium-scale industry in the larger part of the male class. It is recommended that the administration needs to take on an incorporated strategy, furnishing sound information with proficient administration, elevating ability improvement to increment

efficiency, and giving available credit through government-supported organization solely to MSME is fundamental for increment efficiency and commitment to financial development.

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Sustainable Development on Digital Banking in India - An Analysis

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Abstract

Indian Banking sector is playing its role in its lending and borrowing activities. Now a day the needs of individuals, businesses and other corporates has made the banking sector to think upon speeding up of its activities and ensuring the quality over its services has introduced the Digital banking in India. Digital banking is nothing but process of digitizing the traditional banking services and reducing internal carbon footprints from its activities. This means providing all banking services through online mode using internet, like transfer of money from one account to another, easy deposit and withdrawal of money through ATMs etc. it also saves the time and cost of both banks and customers. Digital banking helps to reduce no of paper transactions and increase in digital transactions. This paper focused on various Digital banking services available to its customers and how it helps to maintain sustainability.

Keywords: Traditional banking, Digital banking, sustainability

Introduction

Today Indian banks are as technology savvy, technology has greatly helped the banking sector to smoothen their interaction with the customer, Banks are using the electronic technology to meet the ever increasing competition in banking which has converted the traditional brick and mortars banking into Electronic Banking with rapid advancement in information technology, alternate channels are made available to customers. E-banking is the automated delivery of new and traditional banking products, services directly to the customers through electronic, interactive communication channels. E-Banking is the electronic bank that provides the financial service for the individual client by means of internet. Now days E-banking is common trend in our country. It is help to speed transaction as well as easy transaction. E-banking is an emerging growth and exposure in the field of information and technology (IT). Now days every transaction is done electrically using the Electronic Computerized System (ECS) and through various E-Channels like Automatic Teller Machine(ATMs), credit cards, debit cards,

Internet Banking, Mobile banking, Tele Banking, Electronic fund transfer(EFT), Electronic Trading.

Meaning of E banking

Internet banking or E-banking means any user with a personal computer and a browser can get connected to his bank website to perform any of the virtual banking functions. In internet banking system the bank has a centralized database that is web enabled. All the services that the bank has permitted on the internet are displayed in any information. The term Electronic Banking popularly called as internet banking. Banks are effectively doing their work without much more difficulty. In modern days most of the customers are aware of electronic banks and also E-banking delivery channels which are one of the powerful tools to the banks to satisfy the customers' needs because of their safety & security measures when a bank adopted this kind of updated technology. These banks can reach their financial goals easily.

Objectives of the Study

1. To know the reasons for opting E-banking services by customer.

2. To know the perception of customers for making transactions through E-banking.
3. To offer few suggestion and measures to reap the maximum benefits from e-banking services to the customers.

Hypothesis of the Study

H₀: There is no positive opinion about e-banking services

H₁: There is a positive opinion about e-banking services

Methodology of the Study

For the purpose of study both primary and secondary data has been collected. Primary data is collected through a well designed structured questionnaire and discussions with the bank customer. Sample of 50 respondents are identified randomly. Secondary data is collected from various publications, journals, books etc.

1. Sample Design: Sample is a small representation of population selected at random basis. For survey 30 customers are selected with the help of random sampling technique for achieving the objectives of the present study

2. Tools and Techniques: The present study used simple percentage tables and different statistical tools and techniques such as chi-square test for the analysis and interpretation of data.

3. Scope of the Study: This study will be restricted to study only electronic banking services. The geographical location for the study is restricted to State Bank of India, Gadag branch. The study mainly includes improvement of E-Banking technology and customer satisfaction about E-banking channels.

Table -1: Socio-economic Profile and Opinion of Respondents

Particular	No. of Respondents	Percentage
Age		
18 – 25	37	74.00
26 – 30	02	4.00
31 – 40	05	10.00
Above 40	06	12.00
Total	50	100
Gender		
Male	28	56.00
Female	22	44.00
Total	50	100
Education Qualification		
Up to SSLC	15	30.00
PUC	16	32.00
Graduate	06	12.00
Post Graduate	13	26.00
Total	50	100
Occupation		
Business men	16	32.00
Employees	17	34.00
Students	08	16.00
Other	09	18.00
Total	50	100
Awareness of E-Banking Services		
Yes	49	98.00
No	01	2.00
Total	50	100
Sources through which respondents came to know about E-Banking Services		
Friends	12	24.00
Banker	22	44.00
Relative	03	6.00
Advertisement	13	26.00
Total	50	100

Opinion about E-Banking Services		
Strongly Satisfied	24	48.00
Satisfied	21	42.00
Moderate	02	4.00
Dissatisfied	02	4.00
Strongly Dissatisfied	01	2.00
Total	50	100
Securities measures taken to overcome the E-Banking problems		
Changing passwords frequently	13	26.00
Banking suggestion	25	50.00
Frequently checking of a account	07	14.00
Using demo option	05	10.00
Total	50	100
Frequent usage of Respondents		
Once a day	12	24.00
Once a week	28	56.00
Twice in a month	08	16.00
Once a month	02	4.00
Total	50	100
Benefits of E-Banking		
Any where any time banking	32	64.00
Time saving	04	8.00
Low cost services	06	12.00
Quality Services	08	16.00
Total	50	100
Reasons for consideration E-Banking as safest mode of transaction		
Hides customer identity	12	24.00
Avoids carrying of huge amount	26	52.00
Accessibility of information of all transaction	07	14.00
Password protection	05	10.00
Total	50	100
Purpose behind using E-Banking Services		
Electronic fund transfer	12	24.00
Cash withdrawal	24	48.00
Shopping	06	12.00
Balance enquiry	08	16.00
Total	50	100
Reasons for facing problem while working with e-banking services		
Busy network	28	56.00
No internet connection	18	36.00
Lack of infrastructural facility	02	4.00
Frequent forgetting of password	02	4.00
Total	50	100
E-banking services use for their requirements		
ATMs	26	52.00
Internet banking	08	16.00
Telephone banking	06	12.00

e-payments	10	2.00
Total	50	100
Opinion of customer towards sustainable development		
Yes	48	96.00
No	02	4.00
Total	50	100

(Source: collected through survey)

The above table reveals the profile and opinion of the respondents. Out of 50 respondents, 74% belongs to the age group of 18 to 25 years, 56% of the respondents are female, 34% are employees, 98% are come to aware about e-banking services through banker, 48% opinions that services of E-banking is highly satisfied, majority of the respondents use e banking services twice in a month, 64% says that benefits of e- banking is anywhere and anytime banking, 52% considers the e-banking is the safest mode because it avoids carrying huge cost, 48% use

e-banking services only for cash withdrawal, 36% face internet connection problem while doing transaction in e- banking channel , 50% of the respondents prefer ATM among various e -banking channels. 90% of the customer opined that e banking provides for sustainable development.

Testing of Hypothesis

H₀: There is no positive opinion about e-banking services in state bank of India.

H₁: there is a positive opinion about e-banking services in state bank of India

Table -2: Factors to Determine the Attitude Level of the Perception of E-Banking Users about the E-Banking Services.

Factor	Scale (% variance explained)	Factor Loading	Variables Included In The Factor
F1	Acceptability (13.3%)	0.505	Bank's technology is personalized
		0.736	Bank's Technology Recognizes Customers By Name
		0.738	Bank's Technology Provides The Precise Information That Needed
		0.524	Bank's Technology Provides The Needed Reports/Statements
F2	Safety (13.2%)	0.774	Bank's Technology Is Safe To Use
		0.762	The Risk Associated With The Bank's Technology Is Low
		0.692	Personal Information Exchanged While Using Technology Is Not Misused By The Bank
F3	Availability (13%)	0.803	Bank's Technology Provides On Line Support Through Frequently Asked Questions
		0.850	Bank's Help Desk Provides 24x7 Supports With Updated Information
		0.662	Bank Delivery Channels Are Customized / Developed To Complete Queries/Transactions Quickly
F4	User friendliness (12.8%)	0.787	Bank's Technology Is User Friendly
		0.802	Bank's Technology Is Reliable
		0.593	Bank's Technology Never Fails
F5	Accessibility (9.5%)	0.503	Bank's Technology Is Accessible Beyond Regular Business Hours
		0.619	Bank's technology gives more freedom of mobility i.e. Using the banking services while on move
		0.646	It Is More Convenient To Use Delivery Channels Than Interacting With Bank's Employees

Latest and customized technology has been perceived by the customers as most preferred factor with 67% reliability, followed by safety and security with 72% reliability. Availability, user friendliness has been perceived by the customers as 3rd and forth preferred factor with reliability of 76% and 69% respectively.

The accessibility has been perceived as the 5th preferred factor with 29% reliability which is far lower than the standard requirement of 50% as shown in Table – 2. Hence, 5th factor can be further tested by taking higher sample size. Due to the advent of technology and delivery of financial products and services through Internet, the accessibility factor has been perceived by the respondents together with Internet or with the availability factor.

Internet as a channel per say has wider accessibility. Similarly user friendliness might have been perceived by the respondents together with customized technology. With the above analysis it can be derived that the latest and customized technology, safety and security, availability and user friendliness have been perceived as preferred parameters. The nationalized banks may consider these parameters, while innovative any financial products and services to be delivered through innovative delivery channels. There will be higher probability of acceptance and use of such products and services over the delivery channels.

Conclusion

E-banking has become a necessary survival weapon and is fundamentally changing the banking industry worldwide. Banking business has been an advisable part of economy in general and business in particular as a matter of fact, banking has widened its services from traditional area to a number of sophisticated areas like E-banking, computerization, real time gross settlement, Tele-banking, ATM-Whatever may be the area, banks flourish only when their activities are customer oriented in order to achieve 100% customer orientation they should be aware of customer demands. The present study has focused on the awareness, customer's perception, and effective services provided by banks to the customers. It reveals the fact that the perception, awareness level, and use of e-banking increased in Gadag city. Overall this paper

provides the complete information about the customer's perception and awareness about the e-banking in SBI Gadag City.

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Challenges of NEP 2020: Indian Higher Education

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Abstract

The new education policy has a laudable vision, but its influence will depend on whether it is able to effectively merge with the government's other policy initiatives Digital India, Skill India and the New Industrial Policy to name a few in order to effect a coherent reconstruction. For instance, policy linkages can ensure that education policy speaks to and learns from Skill India's experience in engaging more dynamically with the private sector to shape vocational education curricula in order to make it a success. There is also a need for more evidence-based decision-making, to adapt to rapidly evolving shifts and disruption. NEP has encouragingly provisioned for real-time evaluation systems and a consultative monitoring framework. This shall enable the education system to constantly reform itself, instead of waiting for a new education policy every decade for a shift in curriculum. This, in itself, will be a remarkable achievement. In this context, this study is based on secondary data and the concepts of NEP – 2020 – issues and challenges, finally present Indian higher education system.

Keywords: challenges and issues, present higher education, NEP – 2020

Introduction

“National education policy is spreading its fragrance to all over the world for the betterment of jobs and lifestyles”. Education is so important for today's generation. As India is rich in culture and education, it has been strong motivation for all the civilizations to build up their career through education. The Republic of India has 77.7% have literacy rate out of 1.417 Billion of the population and it is one of the youngest countries among large literacy rate in India. From Gurukul system to modern education system tells lot of changes in human beings and their behavior it all because of the development of the education system. Education is major variable in influencing this development as it has intended to play a critical role in development stories for nations, while the country made major progress in the literacy rates and has emerged as an important player in the worldwide information technology there are still various issues in the education system such as social and gender gaps. This paper provides an overview of the current situation of school education in India while its main part will focus on major problems of the

education system is facing with new implementation of National education policy 2020.

Firstly, the paper gives history about education system techniques, which has implemented and outcome of traditional education. Secondly will be having in mid of education system how students dependent on education in need of jobs finally you can see the drastic changes that has bought in National education policy 2020 major challenges faced by the students and teachers nowadays.

Objectives of the Study

1. To know upon all the education policy this differs from 1968 to 2020.
2. To examine about course structure and problems faced by faculties.
3. To analysis with new ideas and challenges for faculties and students.
4. To know the literacy rate in India by 2035.

Research Methodology

This paper is based on secondary data, which is collected by website seminar proceedings and books etc.

Evolution of National Education Policy in India

Early education in India commenced with the supervision of gurus in Gurukul. Initially education was open to all and seen as one of the methods to achieve Moksha in those days, or enlightenment. As time progressed due to a decentralized social structure of the education was partitioned in many ways depending upon their caste and religion. The Brahmana's were used to learn scriptures and religions to bring more priest and monks in their caste for their development of the religion, while the Kshatriya were educated in the various aspects of warfare. The Vaishya caste learned commerce and other specific vocational courses and Shudras were men of working class and they were trained on skills to carry out their jobs. In those days, education were restricted to certain caste and religion to get progress with their own mythology to some extent it was not open for all to gain knowledge, as it was distinguished for all the caste and religion.

In 5000 B C Gurukul was the residential school for the learners were academicians or teachers would be there with them along with learning they would provide moral values and skills to get to know How to judge the people? In the Kingdom, especially for King Children or daughter they would have separate education system will all the facilities and Gurus will not teach that education to others. According to their caste and kingdom the course plan would be prepared by gurus (teacher) and taught by the gurukul system for this they have to live with the children like normally as citizen of others without having any comforts in their lives till the period of course plan finishes they have to stay in gurukul with the other children of different Kingdoms.

The government of Prime Minister Indira Gandhi announced the first National Policy on Education was came into progress in the year 1968 which was implemented by the policy under the committee of D.S Kothari popularly known as Kothari commission which called for a "radical restructuring" and proposed equal educational opportunities in order to achieve national integration and greater cultural and economic development. The policy was fulfilled with all the aspects and made compulsory for all the children at the age of 14 years, as stipulated by the constitution of

India. This policy was their upto 18 years to bring the equal opportunities for all the children with basic education.

In 1986 Prime minister of India Rajiv Gandhi developed with second National education policy. the major objective was to provide education to all sections of society, The new policy called for special emphasis on the removal of disparities and to equalize educational opportunity, especially for Indian women Scheduled Tribes (ST) and the Scheduled Caste (SC) communities. To achieve such a social integration the policy called for expanding scholarships adult education giving more opportunities in jobs with different government sectors and recruiting for Schoolteacher so that students will increase by the SC and ST to provide equal education to all in matter of developing the nation with widespread of education. It was stressed more on below poverty people to have basic education in India. Further, it also gave importance to start Indira Gandhi National Open University (IGNOU) education for all the main motto was The People's University.

In 1992 the committee was set up under the chairmanship of Acharya Rama Murti in 1990 to revise the education policy later on it was taken by N. Janardhana Reddy the Central Advisory Board of Education. The National Education Policy (1992) gave more importance for greater transformation of the Indian educational system, with a focus on quality enhancement. The policy was focused on introduction of media & information technology in education, which will make radical changes in education policy. Government started with new schemes like **Sarva Shiksha Abhiyan (SSA)** made education compulsory for all the classes of people, **Mid-Day Meal Scheme (MDM)** this was to make the people to understand the government is providing education with mid-day meal for those who stands below poverty line this was done to attract the children from rural areas, **Navodaya Vidyalaya (NVs) scheme** was introduced in this policy to provide scholarship for Excellent students and also provide free education with food and accommodation this was conducted on the basis of exams only meritorious students would fetch seat in this scheme. **Kendriya Vidyalaya (KVs)** and **Right to education** were formed under this national education

policy to bring up drastic changes in the education field.

In 2020, Prime Minister of India Narendra Modi and the committee of Indian Space Research Organization chief Krishnaswamy Kasturirangan newly framed National education policy Transforming India through contributing to an equitable and vibrant knowledge society, by providing high quality education to all.

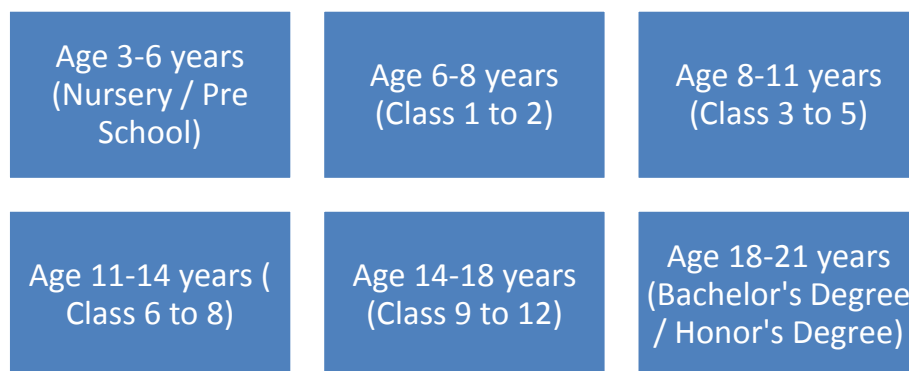
National Education Policy (NEP 2020)

The reason behind bringing new National education policy to make tremendous changes to the education aspirants while, India is developing in the various fields but when you go through with education course wise it stands far away which will not bring much change compare to previous course of education. After 34 years, the education policy has been framed to benefit the students by promoting autonomy. This policy is revised and revamping of all

the aspects of current education, skills, moral values and aspirants' requirements for 21st century.

The main fundamental principles of this National education policy 2020 are to promote Metalinguistic and power of language in learning and teaching it also focuses on Multi-disciplinary and a Holistic education across all the subjects, the students concentrate in all the domain of individual subjects. He need not to be specialized in one or two subjects the intention of NEP is to make him more strong in all the fields of education including his skills and co-curricular activities. The New policy has planned to build their confidence, think creativity, innovative, teamwork and autonomy from the Pre-school itself this gives more interest to the children towards education and this would bring highest literacy rate in India by 2050.

Course Structure of NEP 2020



Course Structure details and Objectives of 2020

1. The current structure of School from 1 to 10 is going to replace by new Pedagogical structure it has been braked up into 5+3+3+4 this also includes 11th & 12th (Puc) and degree.
2. The main intention towards this course structure is to bring Holistic and Multi-disciplinary education across all over the departments like Science, arts, management, vocational and humanities to ensure unity and integrity.
3. In the structure of NEP 10th and 12th Board Exams will be conducted twice a year. In this, it will be Objective and Descriptive in two parts.
4. NEP is one education roof for all the states of India. Now it is nowhere of CBSE, ICSE and State. Education has

come under oneroof i.e, National Education Policy.

5. Marks and grades are not allotted on the basis of subjects but also allotted on the basis of 360° Holistic progress card it involves the values, co-curricular and academics
6. The degree will be for four years, which is called Honors degree. After completion of every year the certificate will be issued for 1st year completion it is Certificate course, 2nd year Diploma course, 3rd year Degree certificate course and 4th year Honor's degree.

Implementation and Outcomes

Presently now we have 2 states First one is Karnataka in July 2021 and another Madhya Pradesh in 26th August 2021 who have implemented National Education policy and one more state Uttar Pradesh is

supposed to implement in this year 2022 said by State Chief minister Yogi Adityanth. The NEP implementation is done only through degree courses i.e, 4 years course. In the starting point of NEP, it went without direction or any ideas giving to the faculties and clerks about taking the admission.

The major thing was taking admission through online was hectic for all the colleges in Karnataka. Meanwhile the workshops, which went for faculties in online though the participants were low in the online workshop the senior clerical and principal, were fought to understand the procedure under UUCMS (Unified University & college management System) where they are supposed to upload all the students documents in the UUCMS portal. This portal was nowhere concerned to the University but they had no idea about the uploading the documents. The courses were framed according to the development of students being autonomy, self-reliance, innovative and creative thinking in the academics.

- 1. AECC Ability Enhancement Compulsory course:** this course is meant for languages which is important for Regional and multi-linguistic it has given more importance for all regional languages.
- 2. DSC Discipline Specific Core:** this core will be based on the courses like B.A,

B.COM, BBA, B.SC AND BCA. The subjects will be on the core or important on their courses.

- 3. SEC Skill Enhancement Course:** this core subject is very much requirement to the students get to know about the skills subject, which will be added into all the semester. This core is more requirement for today's generation to add up their value-based education in the courses. Talent or sports related can be performed by their skills.
- 4. OEC Open Elective Course:** The NEP had made remarkable change on courses by including the subject, which the students want to study taken choice from him apart from his course. This is Holistic learning in all the respective courses.

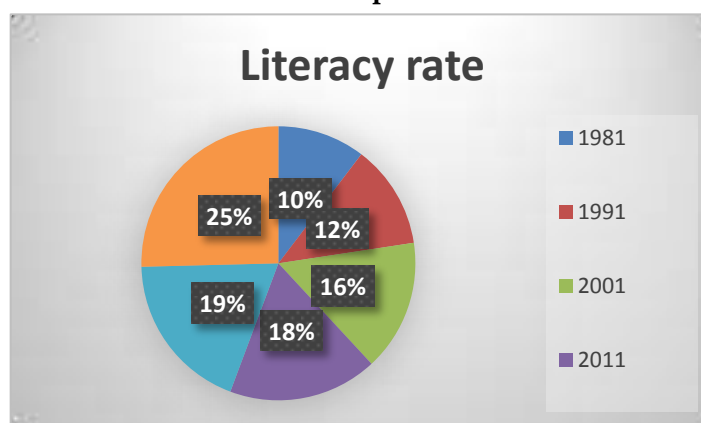
Outcomes of NEP 2020

1. One nation, one education and it will be one course structure.
2. By 2035 the Gross enrollment ratio has to increase 50% as compared to 2018 (26.3%)
3. Every child will come with one skill based learning.
4. The teachers and Professors will be updated according to the generation level.
5. Common standards of learning in both Government and Private schools & college.

Table – 1: Literacy rate in India

Year	Literacy rate	Annual change
1981	40.7636	-
1991	48.2221	7.46
2001	61.0146	12.79
2011	69.3026	6.55
2018	74.373	5.07
2035 (Expected)	100	25.627

Graph 1



Challenges of NEP - 2020

1. **Inter-disciplinary higher education demands for a cultural shift:** In higher education, the NEP 2020's focus on inter-disciplinary learning is a very welcoming step. In India, education has for decades been very isolated and monotonous.
2. **Need to create a large pool of trained teachers:** In school education, the policy envisages a sweeping structural reformulation of the curriculum a very welcome step.
3. **The numbers are no less intimidating in reforms to our school system:** The National Education Policy 2020 intends to bring 2 crore children who are currently not in schools, back into the school system.
4. **Current emphasis on healthcare and economic recovery to lower the speed of implementation:** Economists have been calling for large stimulus packages amounting to double-digit percentages of GDP, despite the strain on the exchequer. While the National Education Policy is a 20-year journey, one worries that we may be off to a stumbling start over the next 2-3 years, when **government and budgetary priorities are claimed by the more urgent but equally important needs of healthcare and economic recovery.**
5. **Opening universities every week is a strenuous task:** India today has around 1,000 universities across the country. Doubling the Gross Enrolment Ratio in higher education by 2035 which is one of the stated goals of the policy will mean that **we must open one new university every week, for the next 15 years.**

Conclusion

National education policy would bring drastic changes in the student's career. The entire student's life would be learning 360 degree Holistic education and skill based. The changes would tell how the education growth would be by next 20 years. The new era is going to make lot of changes in all the life's it could be education, employment opportunity and Teacher's or Professor Career. The things, which supposed to change, may take time to learn and experience with Holistic Multidisciplinary education with lots of efforts and research has to be done by the Higher education.

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Arithmetic Explanation of Problem of Boundary Layer with Non-Newtonian Fluid Flow over a Moving Surface

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Abstract:

Classical Sakiadis problem for non-Newtonian power law fluids. Applying the similarity method transforms the governing partial differential equations into an ordinary differential equation. The resulting boundary value problem is solved over a truncated domain by Chebyshev spectral collocation. The effect of the power-law exponent on the numerical solutions is investigated.

Keywords: Non-Newtonian Fluid Flow, Arithmetic Explanation

Introduction:

The study of flow induced by a moving surface in an otherwise quiescent fluid plays an important role in many material processing applications such as hot rolling, metal forming, and continuous casting. An analytical study of the boundary layer flow induced by the uniform motion of a continuous plate in a Newtonian fluid has been experimentally studied by Sakiadis and Tsu et al. Sakiadis examined polymer sheets continuously ejected from a die traveling between a feed roll and a wind-up roll. For the laminar velocity field of a Newtonian fluid, Tsu et al showed in their analytical and experimental study that the obtained analytical results are in excellent agreement with the measured data, therefore it is

$$\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} = 0$$

Equation 1.1

$$u \frac{\partial u}{\partial x} + v \frac{\partial v}{\partial y} = \frac{1}{p} \frac{\partial \tau_{tx}}{\partial y}$$

Equation 1.2

where u and v represent the horizontal and vertical fluid velocity components, respectively, and τ_{yx} is the shear stress.

Hereafter, we apply the Ostwald-de Welle power law constitutive equation for the non-Newtonian model.

$$\tau_{yx} = K \left[\frac{\partial u}{\partial y} \right]^{n-1} \frac{\partial u}{\partial y},$$

Equation 1.3

where K is the coherence and n is the power-law exponent. If $n < 1$ then the fluid is

pseudoplastic, if $n > 1$ it is dilatant and for $n = 1$ the fluid is Newtonian. Substituting Eq.

(1.3) into (1.2), the fundamental equation for the velocity field is obtained. Equation (1.1) can be similarly satisfied when the stream function is introduced as $u = \partial\psi/\partial y, v =$

$-\partial\psi/\partial x$ Then from (1.3) we get the third order nonlinear partial differential equation:

$$\psi_y \psi_{yx} - \psi_x \psi_{yy} = \gamma \left(|\psi_{yy}|^{n-1} \psi_{yy} \right)_y$$

Equation 1.4

where $\gamma = K/\rho$ and the subscripts denote partial variation with respect to the appropriate variable. The wall is impermeable and a no-slip boundary condition is assumed. Furthermore, the

velocity of the surrounding fluid is zero and we assume that the plate is rotating at constant speed; Hence the boundary conditions can be formulated as follows:

$$\begin{aligned} u(x, 0) &= U_w, \\ v(x, 0) &= 0, \\ \lim_{y \rightarrow \infty} u(x, y) &= 0 \end{aligned}$$

Equation 1.5

Equality measures:

The equality method is applied to transform equation 1.4 into an ordinary

differential equation. Let us introduce the similarity variables η and $f(\eta)$.

$$\eta = a \frac{y}{x^\beta}, \psi = bx^{-\alpha} f(\eta)$$

Equation 1.6

where a, b, α, β are constants, which will be determined from the differential equation and the invariance condition for the three

boundary conditions. Substituting Equation 1.6 into Equation 1.4 gives one.

$$a^2 b^2 x^{-2\alpha-2\beta-1} [a f f'^1 - (\alpha + \beta) f'^2] = \gamma (a^2 b)^n x^{(-\alpha-2\beta)n} \frac{a}{x^\beta} [|f''|^{n-1} f'']'$$

where the primes represent the variation with respect to η . One can observe that the differential equation remains invariant if..

$$(2n - 1)\beta + (n - 2)\alpha = 1$$

Equation 1.7

Also,

$$a^2 b^2 = \gamma (a^2 b)^n a$$

Equation 1.8

Revising the boundary conditions by applying a stream function, one can found other connections between the parameters. According to Equation 1.7, in the third term of Equation 1.5, if $y \rightarrow \infty, i.e \eta \rightarrow \infty$ for fixed x we get

$$\lim_{y \rightarrow \infty} \psi_y(x, y) = \lim_{\eta \rightarrow \infty} f'(\eta) = abx^{-\alpha-\beta} f'(\eta) = 0$$

Let us choose,

$$\begin{aligned} f'(\infty) &= \lim_{\eta \rightarrow \infty} f'(\eta) \text{ then} \\ \alpha + \beta &= 0 \end{aligned}$$

At $\eta = 0$ setting

$$f'(0) = 1$$

Suggests,

From the first condition in (1.5). On the other hand, it follows from Equation 1.7 and Equation 1.8.

$$\beta = -\alpha = \frac{1}{n+1}$$

The second condition in 1.5 is expressed as,

$$-\psi_x(x, 0) = \frac{b}{n+1} x^{-\frac{n}{n+1}} [\eta f'(\eta) - f(\eta)] = 0$$

Which is satisfied for $\eta = 0$ if

$$f(0) = 0$$

As a result, the parameter values are as follows:

$$\alpha = -\frac{1}{n+1}$$

$$\beta = \frac{1}{n+1}$$

$$a = \gamma^{-\frac{n}{n+1}} U_w^{\frac{2-n}{n+1}}$$

$$b = \gamma^{\frac{n}{n+1}} U_w^{\frac{2-n}{n+1}}$$

Dimensionless similarity is the connection between the variable and the original velocity.

$$u(x, y) = U_w f'(\eta)$$

Equation 1.9

$$v(x, y) = \frac{U_w}{n+1} Re_x^{-\frac{1}{n+1}} (n f'(\eta) - f(\eta))$$

Equation 1.10

$$\eta = Re_x^{\frac{1}{n+1}} \frac{y}{x}$$

$$Re_x = \frac{U_w^{2-n} x^n}{\gamma}$$

Equation 1.11

where Re_x is the local Reynolds number. Instead of BVP of partial differential equations 1.1, 1.2, 1.3 and 1.5 we obtained

BVP of nonlinear ODE equations 1.12 and 1.13 through similarity analysis.

$$(|f''|^{n-1} f'')' + \frac{1}{n+1} f f'' = 0$$

Equation 1.12

$$f(0) = 0, \quad f'(0) = 1, \quad \lim_{\eta \rightarrow \infty} f'(\eta) = 0$$

Equation 1.9 Since the velocity field can be calculated from $f(\eta)$ using Equation 1.13, our goal is to determine the solution to Equation

1.14. We also want to examine the boundary layer thickness and $f(0)$. The latter is required to calculate the drag coefficient.

$$C_D = (n+1)^{\frac{1}{1+n}} Re^{-\frac{n}{n+1}} (-f''(0))^n$$

Equation 1.13

And the wall fleece pressure

$$\mathcal{T}_w(x) = \left[\frac{\rho^n K U_w^{3n}}{x^n} \right] (-f''(0))^n$$

Equation 1.14

Solution of Arithmetic:

A spectral method for determining the solution of Equation 1.13 to Equation 1.14. Spectral methods are capable of providing very accurate results when the solution is smooth enough. More precisely, if the solution diverges to all orders, exponential (or infinite order or spectral) convergence is obtained. However, if the solution varies m -times continuously, the rate of convergence is algebraic: $O(k^{-m})$, where k is the k^{th} expansion mode.

Excellent convergence can be achieved for entire functions. For periodic problems, Fourier spectral methods are straightforward; However, in our case the domain is non-periodic, so we will use the Chebyshev method. All three versions of spectral methods (collocation, Galerkin, and Tau) are related to the method of weighted residuals, and the main classification is made according to the type of test functions used. The test functions in the Galerkin method are similar to the weight functions and

satisfy certain boundary conditions. In spectral collocation, the trial functions are Dirac-delta functions located at the collocation points while the Tau method, like the Galerkin method, works in a weak form but the trial functions do not usually satisfy the boundary conditions. Collocation method is used in our calculations. During collocation we determine the function values of the interpolating polynomial at the collocation

$$T_n(\bar{x}) = 1, T_1(\bar{x}) = \bar{x}, T_n(\bar{x}) = 2\bar{x}T_{n-1}(\bar{x}) - T_{n-2}(\bar{x}), n > 1$$

The model approximation of a function $w(\bar{x})$ is

$$I_N \omega(\bar{x}) = \sum_{j=0}^N a_j T_j(\bar{x})$$

Equation 1.15

where a_j are the Chebyshev coefficients. The nodal approximation of $\omega(\bar{x})$ can be evaluated in the Lagrange basis

$$\rho N \omega(\bar{x}) = \sum_{j=0}^N \omega_j l_j(\bar{x})$$

Equation 1.16

where l_j are the Lagrange basis polynomials. Spectral differentiation for Chebyshev polynomials can be done either by matrix-vector product or by using Fast Fourier

Transform (FFT). Due to the relatively small number of collocations points we apply the matrix-vector multiplication method. The first derivative of w is approximate.

$$\omega'(\bar{x}_i) \approx \sum_{j=0}^N D_{ij} \omega_j, \quad i = 0, \dots, N$$

where D is the first difference matrix. Similarly, the p^{th} order derivative is calculated as

$$\frac{d^p \omega(\bar{x}_i)}{d\bar{x}^p} \approx \sum_{j=0}^N D_{ij}^{(p)} \omega_j, \quad i = 0, \dots, N$$

Equation 1.17

Let $D^{(p)}$ stand for the p -th difference matrix. Exact formulas exist for D and $D^{(2)}$. One of the methods for solving BVP at infinite or

semi-infinite distances is the so-called domain truncation. Truncation and linear mapping we have...

$$\eta \in [0, \infty] \rightarrow \xi \in [0, L] \xrightarrow{\zeta = \frac{\epsilon}{L}} \zeta \in (0, 1) \xrightarrow{\bar{x} = 2\zeta - 1} \bar{x} \in [-1, 1]$$

Equation 1.18

Introduction $\bar{f}(\bar{x}) = f(\eta(\bar{x}))$

$$\frac{8}{L^3} \bar{f}''' - \frac{1}{n+1} \left(\frac{1}{L^2} \right)^{2-n} \bar{f} |\bar{f}''|^{2-n}$$

Equation 1.19

$$\bar{f}(-1) = 0, \bar{f}'(-1) = L/2, \quad \bar{f}'(1)$$

Equation 1.20

After the interpretation of \bar{f} , we have $N + 2$ number of algebraic equations. Differential Equation 1.19 is approximated at $N - 1$ interior nodes and the three boundary conditions Equation 1.20. However, the $\bar{f}(\bar{x}) = P(\bar{x})g(\bar{x})$,

number of unknowns is only $N + 1$, so the resulting system is overdetermined. One possible solution is to take an interpolant that already satisfies some boundary conditions. Let us find the function g $P(\bar{x}) = a\bar{x}^2 + b\bar{x} + c$

In case of $P(-1) = 0$, $P'(-1) = L/2$ and $P^{(1)} = 0$ are satisfied, a,b,c are obtained as,

$$a = -L/8, \quad b = L/4, \quad c = 3L/8$$

Now modified by the differential equation,

$$\frac{8}{L^3} [6ag' + (6a\bar{x} + 3b)g'' + (a\bar{x}^2 + b\bar{x} + c)g''']$$

$$- \frac{1}{n(n+1)} \left(\frac{4}{L^2}\right)^{2-n} (a\bar{x}^2 + b\bar{x} + c)g [2ag + (4a\bar{x} + 2b)g' + (a\bar{x}^2 + b\bar{x} + c)g'']^{2-n} = 0$$

Equation 1.8

Conclusion:

The boundary layer is assumed, then the similarity transformation is used to solve the ordinary differential equation instead of the system of partial differential equations. Chebyshev spectral collocation is applied after domain truncation and appropriate treatment of boundary conditions. From the obtained solutions, we find that the boundary layer thickness decreases as the power law exponent increases, while the drag coefficient and wall shear stress increase with larger N exponent.

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Computation of Potential and Electron Concentration Distributions in Dust-Electron Thermal Plasmas with Axial Geometry Particles

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Abstract:

The distribution of potential and electron density in an equilibrium dust-electron plasma considering the parameters of the electron gas inside the axial geometry dust particles. These parameters are included on the basis of the model of "solid-state plasma", which considers a condensed particle system as an ion core and free electron gas.

Keywords: Dust-Electrons, Thermal Plasma

Introduction:

A system of dust particles, free electrons and neutral gas atoms at temperatures of 1000-3000 K at atmospheric or high pressure is called a dust-electron thermal plasma. Under these conditions, the system is an isothermal result of intense collisional heating, i.e. statistical equilibrium is established. Such plasma is produced in the combustion of solid and liquid fuels, in thermal spray coating processes, in MHD generator channels, in plasma chemical reactors, in the synthesis of nano- and micro-sized particles, and in magnetic fusion devices. The typical size of dust particles is in the range of 0.01 to 100 microns. Dust grains heated by the emission process are the source of free electrons. As a result, dust particles become positively charged. If such plasma does not contain readily ionizable alkali metal impurities, the presence of ions can be neglected.

The most important characteristics of dust-electron thermal plasmas are potential and electron density distributions. The "jelly" model, which was previously widely used in

the description of the electrical properties of atomic clusters, was used to determine these features of the data used in this study. According to this model, the dust particle is represented as a two-component system. The first component is the ion core, which creates a uniform positive background throughout the volume of the dust particle. Another element is the electron gas. The density of this gas is distributed in the area due to the balance of internal gas pressure and electrostatic forces. Thus, in this model, a dust particle can be regarded as a solid state plasma field. From the above it can be seen that the distribution of potential and electron density within and around dust particles depends on temperature, type of material, size and concentration of particles.

Consider the system of equations describing the potential distribution and electron density in the solid-state plasma and its surroundings in statistical equilibrium when the temperature is low and ionization of the gas can be neglected. The distribution of the potential ϕ of the electrostatic field is described by the Poisson equation.

$$\Delta\phi = \frac{n_e - n_1}{\epsilon_0\epsilon_1} q,$$

Equation 1

Where ϵ_1 relative permittivity, ϵ_0 - electrical constant - concentration of positive charge of ion core (density of positive background), q absolute value of electron charge. From the Boltzmann formula

$$n_e = n_{e0} e^{\frac{q\phi}{\theta}}$$

Equation 2

Where n_{e0} is the electron density at the origin of the potential, i.e. when $\varphi = 0$ we get the Poisson-Boltzmann equation

$$\Delta\varphi = \frac{n_{e0}e^{\frac{q\varphi}{\theta}} - n_i}{\varepsilon_0\varepsilon_1} q,$$

Equation 3

The solution of equations (2) and (3) determines the electron density distribution. Consider a simple function when the dust particles are uniform cylinders and this

concentration is constant in space. In case of axial symmetry, equation (3) can be written in following format

$$\frac{\varepsilon_0\varepsilon_1}{r} \cdot \frac{d}{dr} \left(r \cdot \frac{d\varphi}{dr} \right) = \left(n_{e0}e^{\frac{q\varphi}{\theta}} - n_i \right) q$$

Equation 4

As a result of the introduction of dimensionless quantities:

$$\frac{r}{R} = x, \frac{q\varphi}{kT} = \phi, \frac{n_i}{n_{e0}} = \bar{n}_i$$

We can obtain the following

$$\frac{1}{x} \cdot \frac{d}{dx} \left(x \cdot \frac{d\phi}{dx} \right) = b^2 (e^\phi - \bar{n}_i), b^2 = \frac{q^2 R^2 n_{e0}}{kT \varepsilon_0 \varepsilon_1}$$

Equation 5

Here R is the dust particle radius, n_{e0} is the electron density at the centre of the cylinder, \bar{n}_i is the constant in the field of $0 \leq x \leq 1$ and $\bar{n}_i = 0$ in the field of $x > 1$.

Some electrons are ejected from the dust particles and so the $n_i > n_{e0}$ equation will be solved according to the conditions.

$$\phi(0) = 0, \phi'(0) = 0, \quad \phi'(1) = 0$$

The distance between the centres of two neighbouring dust particles. The last boundary condition indicates the total electric charge vanishing in a volume bounded by a sphere of radius l and is used to determine the value of n_i .

Electric potential distribution along the radius for different values of absolute temperature. As can be seen in dust particles with increasing x potential, first decreases slowly and then decreases rapidly approaching the particle surface. This is due to the emergence of a large electron density gradient near the surface. Accordingly, there is a large electric field. With increasing temperature, the potential drop over the entire distance from 0 to 1 decreases as the electron yield of the particles increases.

Since the potential and electron density are directly related by the Boltzmann formula, x increases in magnitude $x \approx 1$ and decreases exponentially. Removal of the particle reduces and the rate of change at the point of position $\frac{dn_e}{dx} = 0$.

At higher temperatures, the electron density decreases rapidly as x in the particle

increases. However, outside the particle, the electron density increases with increasing temperature.

Conclusion:

with equation 4, which describes the potential and electron density distribution in an equilibrium dust-electron plasma, taking into account the parameters of the electron gas inside the axial geometry dust particles. These parameters are included based on the model of "solid-state plasma", considering the condensed particle system as an ion core and free electron gas. Solving Equation 4 we obtain the potential distribution and electron density in the thermal equilibrium dust-electron plasma. We found that there is a large gradient of electrical potential near the surface of the particles and, as a result, the concentration of free electrons, that is, the electrons in the dust particles are located in the potential well. The obtained expressions allow to calculate the effect of several parameters such as temperature, concentration and size of dust particles, type of material of particles on the properties of equilibrium dust electron plasma.

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An Overview of Deendayal Upadhyay Economic Thought in India

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Abstract

It is a demonstration of Deendayal Upadhyaya's premonition that a lot of what he recommended a long time back might appear to be obvious to numerous since it is currently important for the laid-out talk of Bharatiya and Bharatiya thought. His four talks on Essential Humanism tried to look at existing socio-political and financial thoughts and frameworks and set an elective method of living in light of the practices of Sanatan Dharma. Here and there, his undertaking can be viewed as an examination plan with clear markers for different lines of inquiry as opposed to a total strategy plan. It is the spearheading idea of Deendayal Upadhyay's ontological prescience that is huge since the reasonable underpinnings of an elective vision were just illustrated extensively. Deendayal Upadhyay maintained that values should be taught to individuals in India. Fundamental humanism of Hinduism information can tackle the contentions. Commonly overlooking agribusiness and elevating enterprises can end up being terrible. He was agreeable to decentralization. This paper in light of auxiliary information and the fundamental point of this study examinations of the monetary idea of Deendayal Upadhyay.

Keywords: Deendayal Upadhyay, Fundamental Humanism, Financial Thought, Fundamental Standards

Introduction

Pandit Deendayal Upadhyaya is recognized as an extraordinary rationalist who as a political extremist and pioneer set out the standards as well as experienced those standards in his political life. A transcending character knowledgeable in various disciplines, he had the option to provide guidance to public legislative issues through his scholarly knowledge and profound comprehension of Indian progress values. His thoughts and reasoning while still staying significant, his commitment as an ideologue and as a directing power for an elective model of administration and legislative issues proceed to characterize and decide the course of legislative issues in the country.

As per him, "An entrepreneur economy initially secures power in the financial field and afterward enters the political field, while communism concentrates control over all methods for creation in the possession of the state. Both these situations

are against vote-based privileges of individuals." Pandit Deendayal Upadhyaya is broadly acclaimed as the propounder of the way of thinking of Necessary Humanism. He never looked to follow a piecemeal way to deal with look for answers for the issues besetting the country; rather he sought to devise a way of thinking which might proclaim a time of necessary methodology. He upheld the synchronous and coordinated program of the body, psyche and acumen, and soul of every person. While looking to spiritualize governmental issues like Gandhi, he laid an accentuation on authoring the phrases of public talk in human advancement and the social ethos of India. He was not for taking on acquired thoughts from the West for objectives of public recreation. He never considered either private enterprise or socialism as an answer to issues of human culture.

Pandit Deendayal Upadhyay's message to the world is:

1. Building a solid and prosperous Indian country on the groundwork of Indian culture.
2. Dharmarajya (which guarantees opportunity, balance, and equity to all)
3. Sarvodaya and Antyodaya (greatest great to all),
4. Samanvaya (blend, not struggle, as the premise of life).

Fundamental Standards:

His idea of Dharmarajya can be seen all the more intricately from the accompanying credits which structure basic standards on which rulers ought to act:

1. The ruler is the upholder of Dharma, not its maker. Nor might he at any point choose concerning what Dharma is. He is capable just for its legitimate authorization. Dharma implies those timeless and all-inclusive regulations which are helpful for the food of my life and the universe those regulations which, our Rishis have found through their premonition. On a limited scale, they reflect the most unmistakable and basic qualities of the lifestyle of a country the support of which depends on the actual constancy of a specific country. Dharma, therefore, represents a country's life cycle and is imprinted on many nations. The lordly duty of the monarch is to preserve this life cycle, including Dharma.
2. When Gandhiji refers to a monarch as Raja it is Ranjati, Dharma Rajya is also included in Gandhiji's Smash Rajya. That is, unless he strives for universal government aid, a ruler cannot truly be a monarch in the true sense of the word. (P. Parmeswaran, DRI, New Delhi, India, 1978, p. 40, Gandhi, Lohia, and Deendayal).

Pandit Deendayal Upadhyay's fundamental humanism

The premise of Upadhyaya's origination of the connection between man and the economy, for sure man and society is indispensable humanism, an all-encompassing perspective on him. He advances a progression of recommendations for India's financial framework:

1. The least way of life for each person and readiness for the protection of the country.
2. The least way of life is by which the individual and the country get the

necessary resources to add to the world's advancement.

3. To give work to each capable body's residents by which the over two goals can be understood and to keep away from waste and luxury in using normal assets.
4. To develop practical machines for Indian conditions (Bharatiya Invention) by examining the nature and availability of the Seven 'M's' of creation.
5. This framework should help and not ignore the person, the person. It should safeguard the social and different upsides of life. This is a prerequisite that can't be disregarded besides at a gamble of incredible hazard.
6. The proprietorship, state, private, or some other type of different businesses should be settled on a logical and commonsense premise

Contemplations of Pandit Deendayal Upadhyay

1. All segments of the general public in India were dealing with monetary issues both the state-run administrations and the families had a shortage of financial plans. Both were squeezing for their necessities and attempting to accomplish harmony by relying upon the other who as of now is frail. Everybody is investigating others to advance their situation. For this solid groundwork work should be done which Second Long term Plan needed on a piece of organizers, financial analysts, and others answerable displayed in indications of its disappointment in the span of one year of its initiation.
2. Innovation ought to be as per the social circumstances, in soundness with the Sanatan culture esteems, and ought to work on our social foundations. Plans are implied and not ended. Plans ought to be figured out as per the objective assessment of the limits of the country. Our social qualities, social practices, and actual necessities are not the same as different nations accordingly; we ought to take on native innovation rather mimicking the West. Innovation ought to be with the end goal that every family becomes an autonomous creation unit.
3. Need ought to be given to agribusiness so it adequately gives food grain and natural substances and becomes independent. Little enterprises and purchaser products businesses ought to be laid out at a large

scale. The government ought to involve its assets for the appropriate advancement of the rail lines, mineral oil, and thermal power and ought to focus on guard and related ventures. Confidential business people ought to lay out ventures in different regions

Conclusion:

I closed the above paper, as he is thinking of such a monetary framework where there won't be a shortage of abundance by shortage of abundance he implied work to battle destitution. For sound advancement of man culture needs neither such destitution nor such impact of abundance is ideal. He was agreeable to monetary exercises which fulfill fundamental necessities and not in making of new requirements, particularly when they are for expanding utilization of the produce. In such economies wants are passed on to increment without control which won't ever bring forth mental fulfillment. Strategies of offer occur of human qualities. This psychological bankrupting lead to innumerable desire which is cruel and unfortunate in the event that exorbitant covetousness for food, power, property, or sex exists. So carry on with unadulterated and fulfilled life.

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Maratha Rule in Karnataka: An Overview

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Abstract

The research paper titled "Maratha Rule in Karnataka: An Overview" delves into a pivotal period in Karnataka's history, focusing on the influence of the Marathas, led by Shivaji and governed by the Peshwas, during the 17th and 18th centuries. Through an interdisciplinary lens that draws from history, archaeology, and cultural studies, this study offers a comprehensive exploration of the multifaceted dimensions of Maratha rule in Karnataka. The paper's significance lies in its meticulous analysis of primary sources, scholarly works, and archaeological evidence to unravel the complexities of this historical era. It highlights the motivations and strategies behind Shivaji's strategic conquests in Karnataka, shedding light on their implications for the region's political landscape and trade networks. The paper delves into the innovative administrative practices introduced by the Peshwas, examining their contributions to effective governance, local administration, and taxation systems.

Cultural interactions between the Marathas and the local populace are examined to uncover the blending of Maratha traditions with indigenous customs, leading to the emergence of a distinctive cultural identity in the region. The study also evaluates the socio-economic impact of Maratha control on trade, agriculture, and society. Additionally, the research traces the decline of the Maratha Empire and the subsequent British intervention, assessing their influence on Karnataka's historical narrative and enduring legacy.

By synthesizing primary sources, scholarly perspectives, and expert insights, this research contributes to a nuanced understanding of Maratha rule in Karnataka. It highlights the intricate interplay of political ambitions, administrative strategies, and cultural exchanges during this transformative period. The study's conclusions underscore the lasting relevance of this historical analysis, offering insights into effective governance, cross-cultural interactions, and the enduring influence of significant historical events in contemporary contexts.

Key words: Shivaji, Peshwas, Cultural interactions, Maratha rule

Introduction

The Maratha Rule in Karnataka stands as a crucial era in the region's history, characterized by the expansion of Maratha influence, strategic conquests, and the establishment of a unique administrative framework. The Marathas, a warrior community hailing from Maharashtra in western India, achieved prominence under the visionary leadership of Shivaji Bhonsle. This overview probes into the key aspects of Maratha Rule in Karnataka, with a particular focus on the contributions of Shivaji and the significance of the Peshwa era.

Emergence of the Maratha Empire: The Maratha Empire, marked by its military prowess and administrative acumen,

emerged as a dominant force in India during the 17th century. Under the leadership of Chhatrapati Shivaji Maharaj, the Marathas embarked on a journey of territorial expansion, seeking to establish control over strategic regions to ensure trade routes, security, and political influence.

Shivaji's Expansions and Karnataka: Shivaji's visionary leadership was instrumental in laying the foundations of the Maratha Empire. While his primary focus was on Maharashtra, his influence extended into Karnataka, resulting in the capture of key forts and territories. The region's significance as a crossroads for trade routes and its strategic importance prompted Shivaji to extend his reach into Karnataka,

thereby altering the region's historical trajectory.

The Peshwa Era and Administrative Innovation: Following Shivaji's demise, the Maratha Empire continued to flourish under the leadership of the Peshwas. These prime ministers played a crucial role in governing and administering the empire, establishing a distinct administrative framework that facilitated effective governance even in far-reaching territories like Karnataka. This era witnessed the consolidation of Maratha influence and the integration of diverse cultures within the administrative fabric.

Cultural and Societal Transformations: The Maratha Rule in Karnataka not only left a mark on governance but also fostered cultural and societal transformations. As the Marathas expanded their influence, they engaged in a process of cultural amalgamation, blending Maratha traditions with local customs. This convergence resulted in the emergence of a distinct cultural tapestry that reflected the region's diverse heritage.

Decline and Legacy: Despite its initial successes, the Maratha Empire eventually faced internal conflicts and external pressures, leading to its decline. The British capitalized on these vulnerabilities and gradually gained control over Maratha territories, including parts of Karnataka. Nevertheless, the legacy of Maratha Rule in Karnataka endures through its impact on governance structures, cultural expressions, and historical narratives.

Research Focus: The study of Maratha Rule in Karnataka provides an invaluable window into the dynamics of power, administration, and cultural interaction during a transformative period in the region's history. Analyzing the strategies employed by Shivaji, the administrative innovations of the Peshwas, and the enduring legacy of Maratha influence can shed light on the intricate interplay of political ambitions, cultural exchange, and societal evolution.

In exploring the Maratha Rule in Karnataka, this research paper seeks to unravel the layers of history that shaped the region's trajectory and contribute to a deeper understanding of the broader historical context of India's past. By delving into primary sources, historical accounts, and cultural artifacts, we can uncover the nuances of Maratha presence in Karnataka

and its lasting impact on the region's identity.

Literature Review:

The Maratha rule in Karnataka during the 17th and 18th centuries stands as a significant chapter in the region's history, characterized by political maneuvers, cultural interactions, and administrative innovations. Scholars have extensively explored various dimensions of this era, shedding light on the motivations, impacts, and enduring legacy of Maratha influence in Karnataka.

- 1. Shivaji's Conquests and Expansion:** Scholars like Stewart Gordon ("The Marathas, 1600-1818") and Govind Sakharam Sardesai ("New History of the Marathas") provide insights into Shivaji's ambitious expansion, detailing his strategic capture of forts in Karnataka and other territories. They analyze the implications of Shivaji's conquests for regional power dynamics and the establishment of Maratha control over key trade routes.
- 2. Peshwa Administration and Governance:** The administrative prowess of the Peshwas is explored by scholars like R. C. Majumdar ("The Maratha Administration") and J. D. B. Gribble ("The Marathas"). They delve into the innovative governance structures implemented during the Peshwa era, shedding light on revenue collection, local administration, and the integration of newly acquired territories, including Karnataka.
- 3. Socio-Cultural Interactions:** Research by Richard M. Eaton ("The Marathas, 1660-1818") and Jadunath Sarkar ("Shivaji and His Times") delves into the socio-cultural interactions between Maratha rulers and the local populace in Karnataka. They explore how Maratha traditions intersected with indigenous cultures, contributing to a unique blend of traditions and cultural practices.
- 4. Economic and Trade Implications:** Scholars like Rajan Gurukkal ("Rethinking Cultural and Political Conquest in Early Modern India") and G. S. Chhabra ("Advanced Study in the History of Modern India") examine the economic ramifications of Maratha rule in Karnataka, highlighting the influence of Maratha control on trade networks,

agricultural practices, and economic development.

5. **Decline and British Intervention:** The decline of the Maratha Empire and the subsequent British intervention are analyzed by S. B. Joshi ("Chhatrapatis of Kolhapur") and SurendraNathSen ("The Military System of the Marathas"). They shed light on the internal conflicts within the Maratha leadership, which weakened their hold on Karnataka, ultimately leading to British influence in the region.
6. **Archaeological and Material Evidence:** Studies by archaeologists like K. V. Ramesh ("ChhatrapatiShivaji and His Times") and K. N. Venkatasubba Rao ("The Marathas") utilize archaeological evidence, including forts and structures, to corroborate historical narratives, providing tangible connections to the Maratha presence in Karnataka.
7. **Regional Comparisons:** Comparative studies by scholars like SumitGuha ("Environment and Ethnicity in India, 1200-1991") draw parallels between Maratha rule in Karnataka and other regions under Maratha influence. These comparisons offer insights into the diversity of strategies employed by the Marathas in various territories.

The existing literature on Maratha Rule in Karnataka offers a diverse array of perspectives, encompassing political, cultural, administrative, and economic dimensions. By drawing from these scholarly contributions, this study aims to provide a comprehensive overview that synthesizes these insights and contributes to a deeper understanding of the nuanced historical interactions between the Marathas and Karnataka.

Research Methodology:

Literature Review: Begin by conducting an extensive literature review to gain insights into existing research, historical accounts, and scholarly perspectives on Maratha rule in Karnataka. This step will help you identify gaps in the literature and refine your research objectives.

Data Collection:

a. Primary Sources: Gathered primary sources such as historical documents, letters, official records, and contemporary accounts from archives, libraries, and digital repositories. These sources will provided direct insights into the events, motivations, and impacts of Maratha rule in Karnataka.

b. Secondary Sources: Utilized secondary sources, including academic articles, books, and research papers, to contextualize your study, understand the broader historical context, and explore different interpretations.

Problem Statement:

This research aims to comprehensively examine the dynamics of Maratha Rule in Karnataka during the 17th and 18th centuries, with a particular focus on the influence of Shivaji's conquests and the administrative innovations of the Peshwa era. The study will delve into the political, cultural, and socio-economic implications of Maratha expansion in Karnataka, exploring how these historical events contributed to shaping the region's governance, cultural amalgamation, and enduring legacy. By analyzing primary sources, historical narratives, and scholarly perspectives.

Research questions:

1. What were the motivations and strategies behind Shivaji's expansion into Karnataka, and how did his conquests influence the region's political landscape?
2. How did the Peshwas' administrative innovations contribute to the governance of Maratha territories in Karnataka, and what were the lasting implications of their rule on local administration and society?
3. To what extent did the Maratha Rule in Karnataka impact cultural interactions and the blending of Maratha traditions with local customs?
4. By addressing these questions, this research aims to provide a comprehensive overview of the Maratha Rule in Karnataka, shedding light on the complex interplay between political ambitions, administrative strategies, cultural exchanges, and the enduring imprint on the region's history.

Objectives:

1. **Examine Shivaji's Conquests in Karnataka:** Investigate the motivations, strategies, and impacts of Shivaji's expansion into Karnataka, exploring the key forts and territories he captured and the implications of these conquests for the region's political landscape.
2. **Analyze Peshwa Administrative Innovations:** Explore the administrative innovations introduced by the Peshwas during their rule over Maratha territories in Karnataka, including the establishment of governance structures,

taxation systems, and local administration, and assess their contributions to effective governance.

3. **Assess Socio-Cultural Interactions:** Investigate the cultural interactions that took place during Maratha rule in Karnataka, analyzing how Maratha traditions merged with local customs, leading to a unique blend of cultures and the emergence of a distinct cultural identity in the region.

Structure

The Shivaji

Shivaji's conquests in Karnataka were instrumental in extending the influence of the Maratha Empire beyond its original stronghold in Maharashtra. These conquests, spanning the 17th century, played a significant role in shaping the political and territorial landscape of the region. Here is an examination of Shivaji's conquests in Karnataka:

1. **Motivations for Conquest:** Shivaji's expansion into Karnataka was driven by a combination of strategic, economic, and political factors. He aimed to control key trade routes, access valuable resources, and establish a secure buffer zone against rival powers.
2. **Capture of Forts:** Shivaji's military prowess enabled him to capture several strategically important forts in Karnataka. Notable among these were forts like Panhala, Kolhapur, and Jangli, which served as crucial strongholds for both defense and trade.
3. **Control over Trade Routes:** By capturing forts along trade routes that connected Karnataka to Maharashtra, Shivaji aimed to gain control over commerce and taxation, ensuring a steady stream of revenue for his expanding empire.
4. **Territorial Expansion:** Shivaji's conquests extended Maratha influence into regions like Belgaum, Kittur, and parts of North Karnataka. This expansion enabled him to create a broader territorial base for his empire.
5. **Administrative Measures:** To effectively govern the newly acquired territories, Shivaji introduced innovative administrative practices. He appointed trusted administrators to manage local affairs and maintain law and order.
6. **Diplomacy and Alliances:** Shivaji's success in Karnataka was also aided by

forging strategic alliances and collaborating with local chieftains. This diplomatic approach facilitated smoother conquests and administration.

7. **Resistance and Challenges:** Shivaji faced resistance from local rulers, rival powers, and the established AdilShahi and Bijapur Sultanate authorities in Karnataka. Overcoming these challenges required a combination of military tactics and diplomacy.
8. **Socio-Cultural Impacts:** Shivaji's conquests brought Maratha culture and traditions into Karnataka, contributing to the blending of Maratha and local customs. This cultural exchange left an indelible mark on the region's socio-cultural fabric.
9. **Legacy:** Shivaji's conquests in Karnataka laid the foundation for Maratha influence in the region. The forts he captured continued to serve as crucial points of control and administration during the subsequent Maratha rule.

In examining Shivaji's conquests in Karnataka, it becomes evident that his strategic vision and military prowess played a pivotal role in expanding the Maratha Empire's dominion. These conquests not only altered the political map but also contributed to cultural interactions, administrative innovations, and the broader historical narrative of Karnataka.

The Peshwas

The peshwas administrative innovations were a hallmark of the Maratha Empire's governance, contributing to its stability, efficiency, and expansion. These innovations were particularly significant during their rule over territories like Karnataka. Analyzing these administrative practices provides insights into the Marathas' ability to manage diverse regions effectively. Here's an analysis of the Peshwa administrative innovations:

1. **Decentralized Administration:** The Peshwas established a decentralized administrative system, delegating authority to local administrators and chieftains. This approach allowed for more efficient governance of distant territories like Karnataka by addressing local concerns promptly.
2. **Land Revenue System:** The Peshwas implemented a land revenue system that aimed to strike a balance between

revenue collection and agricultural productivity. This system sustained the empire's finances while ensuring the welfare of farmers, a crucial aspect in regions like Karnataka.

3. **Ryotwari Settlement:** The introduction of the ryotwari settlement system in some Maratha territories, including parts of Karnataka, directly engaged farmers in revenue payment. This individualistic approach simplified revenue collection and minimized intermediaries.
4. **Local Chieftains and Jagirs:** The Peshwas utilized local chieftains and offered jagirs (land grants) to ensure the loyalty and cooperation of influential local figures. This practice helped maintain stability and efficient governance in regions like Karnataka.
5. **Judicial Reforms:** The Peshwas introduced judicial reforms aimed at providing accessible and impartial justice. Local disputes in territories like Karnataka were addressed through appointed judges, enhancing law and order.
6. **Infrastructure Development:** The Peshwas invested in infrastructure, including roads, waterways, and forts, in order to facilitate communication, trade, and defense. These developments were crucial for connecting distant regions like Karnataka to the central authority.
7. **Trade and Commerce:** The Peshwas encouraged trade and commerce by ensuring secure trade routes and providing support to merchants. This facilitated economic growth in regions like Karnataka, which were key trade hubs.
8. **Cultural Assimilation:** The Peshwas aimed at assimilating local cultures with Maratha traditions. In Karnataka, this cultural blending allowed for better acceptance of Maratha rule and more effective governance.
9. **Bureaucratic Efficiency:** The Peshwa administration implemented bureaucratic systems to streamline governance processes. The establishment of departments handling various aspects of administration improved coordination and efficiency.
10. **Local Governance Adaptations:** The Peshwas recognized the diversity of regions like Karnataka and allowed certain administrative practices to adapt

to local contexts, contributing to the success of their rule.

Analyzing Peshwa administrative innovations underscores their adaptability and pragmatic approach to governance. The implementation of these measures in regions like Karnataka ensured effective administration, economic stability, and cultural amalgamation. The Peshwa administrative legacy left a lasting imprint on Maratha-controlled territories, shaping the socio-political landscape and contributing to the broader historical narrative.

The cultural Impact

The Maratha Rule in Karnataka had a significant impact on cultural interactions and the blending of Maratha traditions with local customs. This period of governance, characterized by Maratha rulers' influence, administrative strategies, and cultural exchanges, contributed to a unique fusion of traditions and the emergence of a distinctive cultural identity in the region. Here's an exploration of the extent of this impact:

1. **Cultural Exchange and Assimilation:** Maratha rule facilitated a cross-cultural exchange between Maratha rulers and the local population in Karnataka. This interaction allowed for the assimilation of Maratha traditions with indigenous customs, resulting in a cultural amalgamation that retained elements of both cultures.
2. **Language and Communication:** Maratha rulers often engaged with local officials and communities in Karnataka. This led to linguistic interactions that influenced language patterns, vocabulary, and linguistic expressions, leaving linguistic imprints in both Marathi and Kannada.
3. **Religious Practices and Festivals:** Maratha rulers' presence introduced new religious practices and festivals to Karnataka, creating opportunities for cultural participation and shared celebrations. These religious exchanges contributed to the diversification of cultural experiences.
4. **Architectural Influences:** Architectural styles and techniques from Maratha territories influenced local constructions, leading to the fusion of Maratha architectural elements with traditional local designs. This blending is evident in historical monuments and buildings.

5. **Cuisine and Food Habits:** Cultural interactions influenced dietary habits, as Maratha culinary traditions merged with local ingredients and flavors. This exchange led to the creation of unique dishes that combined Maratha and local culinary influences.
6. **Art and Craftsmanship:** Artistic expressions and craftsmanship were influenced by the blending of Maratha aesthetics with local artistic traditions. This is evident in art forms like painting, sculpture, and textiles.
7. **Social Norms and Practices:** Cultural interactions impacted social norms and practices, influencing various aspects of life such as marriage customs, social hierarchies, and community relationships.
8. **Folk Traditions and Music:** Maratha rule contributed to the diversification of local folk traditions and music. Musical instruments, melodies, and dance forms were influenced by Maratha musical traditions, enriching the cultural landscape.
9. **Literary and Intellectual Exchange:** Literary and intellectual exchanges occurred, fostering the sharing of stories, ideas, and historical narratives. This exchange influenced literature, philosophy, and local intellectual pursuits.
10. **Regional Identity Formation:** The blending of Maratha traditions with local customs contributed to the formation of a distinct regional identity that was shaped by shared experiences, narratives, and cultural practices.

In conclusion, the Maratha Rule in Karnataka significantly impacted cultural interactions and the blending of Maratha traditions with local customs. This exchange fostered a rich cultural amalgamation that left an enduring mark on the region's identity. The interaction between Maratha rulers and the local population in Karnataka created a dynamic cultural landscape that continues to resonate in various aspects of the region's heritage.

Conclusion:

In conclusion, the study on "Maratha Rule in Karnataka: An Overview" serves as a window into a transformative era marked by conquests, governance, and cultural exchanges. Examining the impact of Shivaji's conquests and the innovative administration

of the Peshwa era reveals the intricate layers of power dynamics and cultural convergence. The study uncovers the cultural fusion that shaped Karnataka's identity, and highlights how Maratha rule's legacy continues to resonate through contemporary narratives.

Through the synthesis of primary sources, scholarly research, and archaeological evidence, this study aims to contribute to a more holistic understanding of the region's history. By acknowledging the complexities of political ambitions, administrative strategies, and cultural amalgamation, this research enriches our grasp of the past while enriching scholarly discourse on the dynamic relationship between the Marathas and Karnataka. The insights gained from this study offer valuable lessons in governance, cultural exchange, and the enduring influence of historical events.

The research paper titled "Maratha Rule in Karnataka: An Overview" delves into a crucial period of Karnataka's history, where the Marathas, led by Shivaji and governed by the Peshwas, exerted their influence. The paper's significance lies in its comprehensive exploration of the various dimensions of this rule, including Shivaji's conquests, Peshwa administration, cultural interactions, and the lasting legacy of Maratha presence.

Through an interdisciplinary approach that draws from history, archaeology, and cultural studies, the paper aims to present a nuanced understanding of how Maratha rule shaped Karnataka's identity, governance structures, and cultural practices. It reviews scholarly works by experts such as Stewart Gordon, GovindSakharamSardesai, and Richard M. Eaton, among others, to contextualize the historical significance of Maratha rule.

The paper's objectives include examining Shivaji's strategic conquests in Karnataka, analyzing the innovative administrative practices introduced by the Peshwas, and assessing the impact of cultural interactions between the Marathas and the local populace. It also seeks to explore the economic and trade implications of Maratha control, trace the decline of the Maratha Empire, and study the subsequent British intervention.

By integrating primary sources, historical narratives, archaeological evidence, and expert insights, the research aims to provide a comprehensive overview of

Maratha rule in Karnataka. This synthesis contributes to a more informed understanding of the period's complexities and its enduring influence on Karnataka's historical narrative, cultural amalgamation, and governance structures. The research's conclusions underline the relevance of this historical study in today's context, showcasing its potential to offer insights into effective administration, cross-cultural interactions, and the lasting legacy of significant historical events.

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“An Investigation on Physical Education Technology”

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Abstract:

This study included both theoretical concepts and practical applications in order to employ technological devices in our physical education lesson. It improved the theoretical and physical performance of acquiring sports skills. Technology has enough eventualities to simplify further effective instruction in physical education and to give physical preceptors crucial pieces of information that can be used in advocacy sweats. Preceptors can also conduct videotape interviews to document pupils' prints of physical education and motor literacy. Rapid developments in electronic technology have made important goods on the education systems in the world. Physical instructors now have access to a variety of tools thanks to technology, especially mobile technology, which they may utilize to assess and improve the physical skills of their students. The list includes videotape analysis, wearable tech, physical education apps, gaming systems, virtual classes, and observers and trackers.

Keywords: Physical Education, Technology, Virtual Classes, Digital Platform.

Introduction:

Technologies, especially in the last twenty times, have amended academy education, expanded contents, tools, and methodologies, and changed the relationship between correctional knowledge, preceptors, and scholars. Rapid developments in electronic technology have made important goods on the education systems in the world.

The use of technology is an important effect of the agreement between the discipline and the pupil, helping to change the ways of literacy, developing the natural provocation and the met cognition. The most important technologies used in seminaries (videotape recording and particular computers) have determined are-setting of knowledge and have surfaced new areas of intervention in each area in relation to the essential correctional themes.

After many times of development, ultramodern education technology in the physical education discipline has achieved outstanding achievements that unknown attention was given by sports preceptors and experimenters, and an agreement was reached that full use of educational technology can't only profit the design, development, mileage, assessment, and operation of sports tutoring training process

and tutoring training material, which help sodalities form tone- characteristics, but also help in working the tailback problems in physical education and therefore achieves the optimization of the combination of proposition and practice in the physical education process of sodalities and universities..

Objectives:

1. To study the concept of physical education technology.
2. To understand the tools applied and its communication.

Research Methodology:

This research is elucidating in nature. The expected optional information was accumulated from various sites, including those shown to the Indian government, magazines, diaries, and different distributions.

Technology of Information and Communication:

The great educational challenge is related to achieving true methodological recrimination for curricular development, therefore breaking with the preconceived idea that Information and communication technologies(ICT) are an external element, especially in the field of Physical Education. It requires specific training that involves

commission in order to take full advantage of the eventuality of ICT for the operation of tutoring, professional development, and life-long literacy.

The operations in the sphere of health and physical education are available and can be used to enrich and ameliorate curricular immolations in utmost sodalities. Multitudinous technological operations regarding the creation of physical conditioning and fitness are available and fluently accessible.

Moment, the operation of colorful technologies by scholars and preceptors requires new capabilities. Scholars must demonstrate motor capabilities and use technology substantially through a tone-literacy process. It's essential to learn to manage the association of conditioning together with the use of different outfits. Physical education classes and health creation programs are developed to offer scholars better openings rather than the traditional way of literacy in gymnasiums.

Latest Tools in Physical Education:

The literacy processes of motor chops(physical knowledge) are developed according to the consecutive- interdependent stages and constitute qualitative aspects essential in physical education tutoring.

The perpetuation of technology in tutoring physical education is motivating for scholars. It contributes to the monitoring of the scholars' progress, identifies gaps in the force of motor chops, and supports the perceived physical tone- efficacy.

Physical instructors now have access to a variety of tools thanks to technology, especially mobile technology, that they may utilize to assess and improve their students' physical skills. The list includes videotape analysis, wearable tech, physical education apps, gaming systems, virtual classes, and observers and trackers.

Videotape Analysis:

Videotape analysis is included in the tools of qualitative assessment. It's an effective tool for covering the situations of literacy and encourages the perception of the capability of the pupil. therefore, the cerebral factors and the connections with motor capacities are solicited it's possible to assay the motor task, compare the elaboration of learning at different times of time-varying the tutoring styles, compare the performance of different scholars, disassemble and

assemble motor sequences to descry crimes and appreciate the literacy issues; elaborate combinations of motor sequences.

Mobile Operation:

Nearly everyone has a smart phone, and PE preceptors can use similar bias to their advantage in encouraging their scholars to work out and exercise. Although they will not presumably like their scholars to be constantly fused to their mobile phones throughout their classes, when educational benefits are egregious the use of mobile phones and phone apps should be encouraged.

There are multitudinous apps that can be taken advantage of, with some allowing for movement shadowing and nutritive help, while others help in enhancing athletic conditioning like basketball. Apps that analyze video and still images may be used to analyze athletic actions and eventually assist improve physical prowess.

There are a lot of phone apps available these days designed to track movements and offer nutritive attendants. Scholars can pierce important information regarding their fitness and diet with just many clicks. And the stylish part is that utmost of those apps are free. While there are apps that bear some form of payment or yearly freights, the cost can be worth the health benefits associated with well-informed drill and diet programs.

Online Recordings:

With the quicker and more dependable web, web-based recordings are more open than at any time in recent memory. PE instructors can exploit this innovation to urge their understudies to improve their abilities by looking at online recordings and exhibits. With the profundities of data accessible on the web, PE teachers will not struggle with looking for recordings that can meet each understudy's requirements. Educators, nonetheless, should be cautious in picking recordings. They need to ensure that the recordings are age suitable to the class and grade they are instructing.

Moreover, to energize better learning, educators can likewise urge their understudies to make their own informative recordings of any exercise they are energetic about doing. This is more captivating than having understudies sit and watch recordings that are now on the web.

Virtual Classes:

Actual schooling isn't just about being "truly dynamic." It's as yet a growing experience, so understudies are supposed to take part in conversations with their educators about their learning, challenges, and other vital data for them to arrive at a more profound degree of understanding. Compelling learning includes two-way correspondence where understudies can participate in the conversation and challenge the educator's thoughts to accomplish a more profound comprehension. Numerous homerooms enjoy currently begun taking benefit of the web-based world by making study hall online journals or sites. A homeroom site is significant for empowering conversation after class or empowering correspondence for understudies applying PE procedures or dealing with sports practices or exercises beyond study hall. One more marvelous method for utilizing a virtual network is to welcome visitors into your homeroom through video talk projects, for example, Skype and Home Bases.

Understudies can likewise be urged to engage with online courses about sustenance, working out, and wellness standards or web missions designed for deliberate request. Virtual classes permit understudies to offer their viewpoints and perspectives about their exercises. They are likewise significant in fostering the understudy's composition and relational abilities. They empower understudies to mix into media and upgrade their innovative reasoning.

Gaming Frameworks:

Computer games can fundamentally have an impact on the manner in which understudies think and feel about being genuinely dynamic and cutthroat. They appeal to their affection for computer games and flash their advantage in their application to actual training. They even make an extraordinary answer for keeping kids dynamic in terrible climates. Intelligent computer games like Dance Upset, Wii Fit, what's more, Wii Sports can be significant in advancing the actual work of understudies and are now being used across numerous actual schooling communities. They act as a sensible option in contrast to practicing in a terrible climate and produce results like those seen with outside actual work. Actual training educators can without much of a stretch tap into understudies' adoration for

computer games to cultivate interest in actual schooling. With gaming frameworks applied to exercise center classes, understudies can take a movement related to latency and transform it into something efficient. They keep understudies submerged and connected which can be going on at home.

Monitors and Trackers:

Observing active work and stationary ways of behaving by cell phone applications (applications) and wearable innovation (wearables) may further develop these well-being ways of behaving. Since not all understudies have similar actual capacities, it's fundamental for educators to know about what their understudies may or may not be able to do. It is essential to adjust a program to a specific understudy's body, subsequently; pulse screens have become basic for surveying understudies' actual endurance and in defining practical and sensible objectives for them.

Aside from pulse screens, pedometers have likewise turned into a key apparatus in actual schooling. They are fantastic and solid with regard to the following advances. They can monitor how dynamic an understudy is in any event when they do not participate in an exercise or exercise. Aside from that, pedometers work in any event, when utilized in getting things done and tackling tasks at home. Furthermore, assuming an understudy's step count is low; a pedometer can remind that understudy to continue strolling and going. It gains understudies more mindful of their headway and to adhere to their objectives.

Smart watches:

Shrewd watches make an extraordinary option in contrast to the customary pedometer as a stage counter. They might be more costly, but they offer more capabilities. For instance, some brilliant watches can allow understudies to get to their #1 music and pay attention to it while actually working. Different models have applications that can remind understudies to take any medicine they are, on target for their dozing hours, or log their temperaments. Some brilliant watches can log understudies' running distances as well as their speeds.

One issue with shrewd watches is that they will generally be costly. Furthermore, the more elements they have,

the higher their cost gets. Generally, this just intends that albeit brilliant watches are convenient in actual schooling classes, they may not fit each understudy and teachers should know about that

Confabulation and Suggestions:

Thornburg and Slope, (2004) propose that advancements in schooling ought to be used as a device to work with understudy engine learning. Savvy utilization of innovation is to establish a learning climate where the students can be all the more effectively engaged with their own way of learning (understudy engine learning). Innovation improved learning conditions can possibly expand understudy's cooperation in complex mental undertakings, expand chances to get modern and individualized criticism and construct networks of association between educators, understudies, guardians, and other intrigued gatherings.

Conclusion:

Innovation, as a general rule, has decidedly rebuilt actual training classes. With video examination, applications, online recordings, screens, brilliant watches, and trackers in actual schooling educators can make tweaked and sensible objectives for their understudies. Simultaneously, understudies felt more connected with and focused on being truly dynamic which is fundamental in creating sound propensities. As an actual training educators make use of and benefit from the innovation backing to upgrade the understudy's information in the study hall schooling. In the current condition, Actual Training needs substantially more ramifications in the most recent innovation accessibility to advance homeroom education as well as fieldwork.

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Indian Banking: Challenges of Technological Advancement and Innovation

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Abstract

India's banking system has seen major fiscal inventions in the once decade as well as ways to promote fiscal addition, schemes that aim to take banking services to yet- to-be-banked areas. The colorful inventions in the Indian banking sector are ECS, RTGS, EFT, NEFT, ATM, Retail Banking, Debit & Credit Cards, free advisory services, perpetration of standing instructions of guests, payments of mileage bills, fund transfers, internet banking, telephone banking, mobile banking, dealing insurance products, issue of free cheque books, rubberneck's cheques and numerous further value-added services. The major fiscal invention has been the globalization of fiscal systems, deregulation, and great advances in technologies. This paper studies fiscal invention in banking in India. It also highlights the technological advancement of Indian banking and also innovative banking trends. Banks boost technology investment spending explosively to address the profit, cost, and competitiveness of enterprises. The purpose of the present study is to dissect similar goods of recent trends in technological changes and inventions in the Indian banking sector

Keywords: Fiscal Addition, ATM, Retail Banking, Debit & Credit Cards

Introduction

The central bank of India has made the utilization of technology to increase banking a key area of concentration. The RBI has taken several enterprises to vulgarize the operation of technology by banks in India. Periodically, nearly formerly in five times since the early 1980s, the RBI appointed panels and working groups to meditate on and recommended the applicable use of technology by banks given the circumstances and the need.

Technology was seen by RBI as a crucial business enabler in six vital areas of banking viz. accelerating profit pool, functional effectiveness, client operation, distribution and reach, product invention and effective payment and agreement RBI anticipated that these developments in the areas of housekeeping and decision- timber will ameliorate the client service situations and productivity, eventually performing in better profitability. In 1998, RBI profited from the specialized backing design of the Department for International Development (DFID), UK for upgrading its administrative

system and adaptation of its administrative functions to the motorized terrain. For the robotization of banking assiduity as a whole RBI has made massive investments in colorful tools and accoutrements of banking-grounded IT. Following the Saraf Commission's recommendations, the RBI took steps to establish the VAST network, which provides a reliable connection backbone for the banking and financial sectors only.

Banking assiduity becomes a technology- ferocious assiduity next to airline assiduity. Technology has created a paradigm shift ' in customer services and has prime to the reengineering of banking operations and processes. The fiscal reforms that were initiated in the early 1990s and the globalization and liberalization measures brought in a fully new operating terrain to the Indian banks. The bankers in India are now offering innovative and seductive technology-grounded services and products.

Literature Review:

Monetary creations bring down the expense of capital, decrease monetary

entanglements, improve monetary intermediation, and consequently weal upgrading. The essential capability of the monetary framework is to work with the portion and organization of beneficial money chests in an unsure territory(Merton, 1992). the financial creation is useful in icing smooth working and works on the general viability of the framework by limiting expense and decreasing the danger. All the more, for the most part, financial development has been a focal power driving the monetary framework toward incredible financial viability(Merton and Bodie 2005). Innovation breakthroughs are expected to alter the fundamental nature of the financial industry, according to Avasthi and Sharma's analysis from 2000–2001. Innovation has changed over the conveyance channels by banks into retail banking. It has additionally influenced the solicitations of banks. The concentrate additionally investigated the difficulties that the financial business and its regulator face.

Janki(2002) anatomized how technology is affecting employees' productivity. There's no mistrustfulness, in India particularly public sector banks will need to use technology to ameliorate operating effectiveness and client services. The focus on technology will increase noway ahead to add value to client services, develop new products, strengthen threat operations, etc. The study concludes that technology is the only tool to achieve their pretensions.

HuaG.(2009) investigates online banking acceptance in China by conducting a trial to probe how druggies ' perception of online banking is affected by the perceived ease of use of the website and the sequestration policy provided by the online banking website.

Jalan, B.(2003), IT revolution has brought about a fundamental metamorphosis in banking assiduity. maybe no other sector has been affected by advances in technology as much as banking & finance. It has the most important factor for dealing with the enhancing competition & the rapid-fire proliferation of financial innovations.

Mittal, R.K. and Dhingra, S.(2007) concentrated on the piece of innovation in the financial area. They examined speculation script in innovation in Indian banks however this study was connected with the time span before the Data Innovation Act and around then innovation in Indian banks was

authentically low. Be that as it may, both experimenters well introduced their perspectives. Padhy, K.C.(2007) concentrated on the effect of innovation improvement on the financial framework and he additionally features the eventual fate of the financial area. The center's abilities will give similar benefits.

Objectives:

1. To study the technological advancement and invention in the banking sector
2. To know the changing banking script and challenges of banks

Indian Banking Industry – Technological inventions

With competition as the buzzword among banks, all orders of banks have been investing in robotization and the use of advanced communication networks. The directive by Central Vigilance Commission(CVC) to banks to achieve 100 percent robotization has communicated urgency to the process to process of technological advancement, while new private sector banks, foreign banks, and many aged private sector banks have been enjoying a head start in espousing “ core banking results ”, Public Sector Banks(PSU) to have fallen in line rather roundly. either, all PSU banks, except eight, had achieved 100 percent full/ robotization as on March 31, 2005. Of 27 PSU banks, as numerous as nine had 100 percent robotization branches 19 had further than 50 percent.

Banking assiduity has always tried to reap maximum benefits out of the new technological options available at its disposal. The elaboration of a new paradigm shift in banking popularly nominated as e- banking could be traced back to the early 1970s. E-banking involved the relinquishment of new technologies to optimize operations, strengthening back office operations using advanced information systems, and exploring possibilities of coming up with new delivery channels for banking products and services. Banks tried to use e-banking as a means to replace their traditional delivery channels viz. branch banking- substantially due to the cost of setting up physical branches and increased charges associated with maintaining them. As part of their banking enterprise banks offered the following new delivery channels to guests- automated teller machines(ATM) Cash Dispensers(CD), Phone banking, Internet banking, and mobile banking. Banks used banking as a medium to

fight fierce competition that was in the request and also to retain the client base they had. guests' response to e-banking was enthusiastic and followed the prognosticated path of technology relinquishment life cycle models (Shreyan et., 2002)

Technological invention both externally and internally brought about changes in the banking sector. The external invention can be set up in product and service innovation. also, the internal invention is set up in functional functions of the bank. The operation of information technology in the banking sector redounded in the development of different generalities of the banking sector similar as E-Banking, Internet banking, online banking, telephone banking, automated teller machine, universal banking, and investment banking. with quick electronic services to the dynamic guests of information systems.

Inventions in Banking Sectors

Today banking is known as innovative banking. Information technology has given rise to new inventions in product design and their delivery in the banking and finance industries. client services and client satisfaction are their high work. The current banking sector has come up with a lot of enterprises that are acquainted with furnishing better customer services with the help of new technologies. Banking through the Internet has emerged as a strategic resource for achieving advanced effectiveness, control of operations, and reduction of cost by replacing paper-grounded and labor ferocious styles with automated

processes thus leading to advanced productivity and profitability. fiscal invention associated with technological change completely changed the banking gospel and that's further tuned by the competition in the banking assiduity. Challenging business terrain within the banking system produces further invention in the fields of product, process, and request. A study on Internet druggies, conducted by the Internet and Mobile Association of India (IAMAI), set up that about 23 of the online druggies prefer IB as the banking channel in India, alternate to ATM which is preferred by 53. Out of the 6,365 Internet druggies tried 35 use online banking channels in India.

The preface of ATMs in banks has converted banking by furnishing banking services TIME & ANYWHERE, ANYBANK to the client. The client is saved the risk or bother of carrying hard cash or trippers' cheques while traveling. Additionally, it has allowed banks to save costs. The entry of ATMs has changed the profile of frontal services in bank branches. Customers no longer need to visit branches for their day-to-day banking deals like cash deposits, recessions, cheque collection, balance inquiries, etc. In 2010-11 the number of ATMs witnessed a growth of 24 percent over the former time. still, the chance of point ATMs to total ATMs witnessed a borderline decline to 45.3 percent in 2010-11 from 45.7 percent in 2009-10. further than 65 percent of the total ATMs belonged to the public sector banks as of the end of March 2011 as shown in Table 1.

Table 1: ATMs of Scheduled Commercial Banks (As at end-March 2011)

Sr. No	Bank group	On-site ATMs	Off-site ATMs	Total number of ATMs	Off-site ATMs as% of total ATM
I	Public sector banks	29,795	19,692	49,487	39.8
1.1	Nationalised banks*	15,691	9,145	24,836	36.8
1.2	SBI group	14,104	10,547	24,651	42.8
II	Private sector banks	10,648	13,003	23,651	55.0
2.1	Old private sector banks	2,641	1,485	4,126	36.0
2.2	New private sector banks	8,007	11,518	19,525	59.0
III	Foreign banks	286	1,081	1,367	79.1
All sch (I+II+III)		40,729	33,776	74,505	45.3

Source: Report on Trend & Progress of Banking 2010-11

Plastic cash is the option in contrast to money or standard cash. It is advantageous to convey. The various Plastic cash/cards incorporate ATM cards, Check cards, ATM cum Charge cards, CreditCard.

Plastic cash was a delectable gift to the Indian market. Presently a few new elements added to plastic cash to make it more appealing. Mastercard is a monetary instrument, which can be used at least a couple of times to get cash or purchase items and administrations using a loan. Banks,

retail stores, and different organizations by and large issue these. Based on their credit

limit, they are of various types like works of art, gold, or silver.

Table 2: Debit Cards Issued by Scheduled Commercial Banks (As at end-March 2011)

Sr. No.	Bank group	Outstanding Number of Debit Cards				
		2006-07	2007-08	2008-09	2009-10	2010-11
I	Public sector banks	44.09	64.33	91.7	129.69	170.34
	1.1 Nationalised banks	19.24	28.29	40.71	58.82	80.27
	1.2 SBI group	4.85	36.04	50.99	70.87	90.07
II	Private sector banks	27.19	34.1	41.34	47.85	53.58
	2.1 Old private sector banks	3.94	5.34	7.09	9.81	12.44
	2.2 New private sector banks	23.25	28.76	34.25	38.04	41.14
III	Foreign banks	3.70	4.02	4.39	4.43	3.92
All SCBs (I+II+III)		74.98	102.44	137.43	181.97	227.84

Source: Report on Trend & Progress of Banking 2010-11

During 2010-11, the number of charge cards developed at a pace of 25% over the previous year. In a state of harmony with the pattern seen in the event of ATMs, almost three-fourths of the all-out debit cards were given by PSBs at the end of Walk 2011. The

portion of PSBs in remarkable debit cards saw an increment during the new year, while that of new confidential area banks and unfamiliar banks saw a decay over a similar period. Nonetheless, in outright terms, the number of remarkable charge cards saw an increment for new confidential area banks during the late years.

Table 3: Credit Cards Issued by Scheduled Commercial Banks (As at end-March 2011)

Sr No	Bank group	Outstanding Number of Credit Cards				
		2006-07	2007-08	2008-09	2009-10	2010-11
I	Public sector banks	4.14	3.93	3.44	3.26	3.08
	1.1 Nationalized banks	0.75	0.72	0.72	0.73	0.78
	1.2 SBI group	3.39	3.21	2.72	2.53	2.30
II	Private sector banks	10.68	13.29	12.18	9.5	9.32
	2.1 Old private sector banks	0.03	0.04	0.06	0.06	0.04
	2.2 New private sector banks	10.65	13.25	12.12	9.44	9.28
III	Foreign banks	8.31	10.33	9.08	5.57	5.64
All SCBs (I+II+III)		23.12	27.55	24.70	18.33	18.04

Source: Report on Trend & Progress of Banking 2010-11

The issuance of Visas works with exchanges without conveying paper cash. Regardless of the decrease in the quantity of exceptional number of Mastercards, the volume, and worth of exchanges with charge cards recorded a development of 13% and 22 percent, separately in 2010-11. New private sector banks and foreign banks accounted for more than 80% of the absolute exceptional credit cards at the end of March 2011.

RTGS stands for Real Time Gross Settlement system. It is a fund transfer mechanism where the transfer of money takes

place from one bank to another on a real-time and gross basis. This is the fastest possible money moves through the system through the banking channel. It is different from EFT and NEFT. It is principally for huge volume exchange. The time taken for effecting funds transfer from one account to another is normally 2 hours. Over the last three decades, the role of banking in the processor financial intermediation has been undergoing a profound transformation, attributable to changes in the worldwide financial system.

**Table 4: Volume and Value of Electronic Transactions* by Scheduled Commercial Banks
(As at end-March 2011)**

Year	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11
	Volume		Percentage Variation		Value		Percentage Variation	
1	2	3	4	5	6	7	8	9
ECS Credit	98.1	117.3	11.0	19.5	1,17,613	1,81,686	20.6	54.5
ECS Debit	149.3	156.7	-6.7	5.0	69,524	73,646	3.8	5.9
NEFT	66.3	132.3	106.3	99.5	4,09,507	9,39,149	62.5	129.3
RTGS	33.2	49.3	148.5	48.2	3,94,53,359	4,84,87,234	22.2	22.9

Source: Report on Trend & Progress of Banking 2010-11

Electronic payment systems such as Electronic Clearing Service (ECS) credit and debit, Public Electronic Asset Move (NEFT) for retail exchanges, and Continuous Gross Settlement (RTGS) for large value, improved the speed of financial transactions, across the country. Both retail and large value systems of electronic payment transactions registered a development out of which NEFT enlisted a lofty development in 2010-11 over the earlier year.

Challenges of Indian Banks

The challenges faced by Indian banks include the need to develop or acquire the right technology, deploy it effectively, and leverage it to achieve high levels of efficiency while also being cost-effective and delivering sustainable returns to shareholders. Early adopters of technology enjoy significant competitive advantages. Managing technology is therefore a critical challenge for the Indian financial sector. Nationalized banks and commercial banks face competition from new private-sector banks. This competition brings various challenges such as product positioning, innovative ideas and channels, new market trends, and cross-selling at administrative and hierarchical levels. Banks are automating their processes by converting manual labor into machine power. Skilled and specialized manpower is being utilized, resulting in a more targeted and results-oriented workforce.

Currently, in India, there are two types of bank customers: those who use multiple channels and those who rely solely on branches. The main challenge for banks is to provide consistent support to customers regardless of their preferred channel. Customer retention is a major challenge, and

banks need to focus on keeping customers and increasing their market share. Data technology provides opportunities and challenges. Despite the availability of ATMs and online banking, many customers still prefer the personal touch of their local branch. Technology makes it possible to provide services throughout the branch network, offering instant updates on financial accounts and quick access to funds for stock transactions.

However, this reliance on the network creates additional responsibilities and challenges for the IT department in managing, maintaining, and optimizing the performance of retail banking organizations. It is crucial for today's retail banks to ensure that all bank products and services are available at all times and across the entire organization to generate revenue and stay competitive. Additionally, there are network management challenges, where keeping these complex, distributed networks and applications operating efficiently in support of business objectives is essential. Specific challenges include ensuring that account transaction applications are efficient between branch offices and data centers.

The banking industry in India is now aiming to improve its retail conveyance system by implementing various changes such as enhanced branches, improved phone services, and advanced Internet banking functions. This will provide customers with a positive multi-channel experience consistently. However, the industry is facing several challenges, including keeping up with excellent resources, managing impaired resources, staying up-to-date with technology upgrades, supporting strong baselines and increasing shareholder value, coping with regulatory changes, and restructuring and

reorganizing banks' setup towards thinner and leaner authoritative workplaces. Additionally, unviable branches are being closed down and merged, particularly in metropolitan and urban areas.

The Indian banking sector is currently facing various challenges, including increased competition, rising customer expectations, and decreasing customer loyalty. The industry is rapidly changing, with different segments of customers using varied banking channels such as physical branches, ATMs, e-banking, and credit-only economy. Banks are setting up alternative delivery channels to reduce operating costs, such as off-site ATMs, web banking, telebanking, rethinking, and unified transaction processing. Technological advancements have brought significant changes to modern banking, and maintaining transparency and market disclosure are crucial. Financial organizations are more accountable and responsive to well-informed clients, investors, and the general public.

Providing clients with a perfect combination of innovative and traditional services is crucial for sustainable competitive advantage in today's rapidly changing and complex environment. Technology plays a critical role in delivering banking services, and customer expectations have evolved as a result. Customers now expect fast service with minimal response time, efficient service delivery, customized and value-added products that fit their specific needs, easy procedures, low transaction costs, and personalized service. Since different classes of customers have varying expectations from banks, it is essential to adopt a segmented approach to studying their expectations. Banks need to profile their clients and segment them based on factors such as age/life cycle stage, income, occupation, requirements, and preferences, based on customer feedback and market research. They must also analyze the various financial needs that arise across different life cycle stages and design banking products accordingly to sustain relationships over the long term. Banks require a focused marketing approach that aligns with the segments they serve, concentrating on brand building and individual product advertising through appropriate media planning.

Conclusion:

Recently, the Indian banking sector has undergone significant changes thanks to a favorable macroeconomic climate, the historic foreclosure law, declining interest rates, sufficient system liquidity, the rapidly spreading technology revolution, and the vast potential in the retail sector. However, the banking industry faces several challenges, such as increasing competition, pressure on spreads, and systemic changes to align with international standards. To remain competitive in this dynamic environment, banks must re-evaluate their strategies and processes. According to census records, only 30.1% of rural households have access to banking services, possibly due to the lack of bank branches in the area. The existing rural branches of many big banks are shutting down as they have become unviable. Banks must think outside the box and explore new practices, products, services, partnerships, and investments that fall beyond current practices. The new business environment places a premium on creativity and innovation. This calls for innovative solutions, such as mobile banking services for a cluster of villages or low-cost, self-service solutions/ATMs. The government and the RBI must actively support such research efforts.

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A Study on Customers' Satisfaction towards E- Banking Services with special Reference SBI in Gadag City

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Abstract

The State Bank of India is a public area bank that offers monetary types of assistance and works worldwide with its base camp situated in Mumbai. It is the 43rd biggest bank on the planet and holds a 23% offer in implies and a 25% offer in complete credits and stores. E-banking, otherwise called electronic banking, is a help that empowers clients to get to their bank data, manage monetary exchanges, put aside installments, and withdrawals, and take care of bills through the Web without truly visiting a bank. This examination was led in Gadag City, where clients who utilize the E-banking administration of the State Bank of India (SBI) were studied. The example size comprised 50 respondents who were profiting from E-banking administrations in SBI in Gadag City. Clients expect quality administrations that give fulfillment, and the review uncovered that clients are profoundly happy with the E-banking administrations given by SBI in Gadag City. Despite the fact that SBI gives different kinds of E-banking administrations, clients are not using them appropriately. In this manner, it is suggested that clients exploit the offices given by banks.

Keywords: E-banking, Consumer loyalty, Commercial Banks

Introduction

Nowadays, banks have moved away from conventional manual tasks and towards a more concentrated approach with the assistance of innovation. They are using new instruments and techniques to all the more likely grasp their client's requirements and furnish them with custom-fitted items and administrations. The emphasis is on guaranteeing consumer loyalty and helpfully offering types of assistance. E-banking has arisen as a famous channel for these specialist organizations.

E-banking is an electronic financial assistance that permits clients to get to their bank data, manage monetary exchanges, set aside installments, withdrawals, and take care of bills through the Web without truly visiting their bank. A new mechanical development has turned into a need for the everyday person, making customary exchanges quicker and more proficient with negligible desk work. SBI is a notable business bank that gives numerous E-banking administrations to its clients. This

study centers around how SBI gives E-banking administrations to its clients in Gadag City. The review incorporates just 50 clients with a record at SBI in Gadag City.

Objectives of the review

The accompanying targets are planned for the current review

1. To investigate the mindfulness among Clients about the E-banking administrations of SBI.
2. To read up on the purposes behind visitors favoring E-banking administrations.
3. To recommend the healing measure to work on the nature of administrations of E-Banking

Literature Review

1. **Lakshmi Narayana et.al (2013):** In their 2013 review named "A Concentrate on Client Fulfillment towards Web-based Financial Administrations Regarding Bangalore Megacity," Lakshmi Narayana et al. intend to recognize the key factors that impact web-based financial clients' fulfillment with the general assistance

nature of their banks. By evaluating these elements of Web banking, the review could assist banks in further developing consumer loyalty and reinforcing their associations with clients, prompting expanded client maintenance and extension. The concentrate additionally features the significance of understanding clients' view of general administration quality and fulfillment with current web-based financial administrations to make their financial experience more helpful and compelling.

2. **Vimala(2015)** review "An Evaluative Concentrate on Web Banking Security among Chose Indian Bank Clients" inspects the openness and speed of Web banking, as well as the security issues related to it. Even though financial organizations have gone to lengths to guarantee client well-being during on-web exchanges, the review shows that Web banking faces a few security challenges. The concentrate further notes that Web banking has become progressively famous because of the development of banking innovation items, and different studios have zeroed in on its activity, well-being measures, discernments, mindfulness, fulfillment, and security issues, including monetary extortion.
3. **ReetaClonia.(2016)** In 2016, Reeta Clonia directed a review named "E-banking in India: Current and Future Possibilities". As indicated by Reeta's examination, E-banking is the most inventive pattern among clients looking for additional helpful and secure monetary administrations. The progress from conventional banking to E-banking has been a huge change in financial exchanges. Reeta analyzed the financial business in India and surveyed the development rate and future possibilities of E-banking administrations given by Indian banks. The financial development and advancement of any nation are significantly connected to the advancement of the financial area in that particular country.
4. **Khaled Bin Amir and Dr. Hasina Sheykh (2017)** In 2017, Khaled Canister Amir and Dr. Hasina Sheykh led a review named "Investigation of Client Fulfillment on Web-based Banking: A Contextual Investigation on One Bank Restricted". The review uncovered that

clients were happy with the web-based financial administrations presented by One Bank Restricted, however many didn't know about or were ready to utilize the administrations. The degree of fulfillment was higher for specific boundaries and lower for other people. Clients were happy with the security and ease of use of the bank's site yet were nonpartisan about the update recurrence. In this manner, web banking has turned into a fundamental device to draw in a bigger client base.

Research Methodology

The current review has used both essential and auxiliary information hotspots for its examination philosophy. Essential information was gathered through organized polls and meetings directed with visitors who use E-Banking offices. Optional information was accumulated from different sources like magazines, diaries, handbooks, and the Web, as well as data given by banking staff.

With the end goal of this review, a basic open inconsistent cut was chosen from visitors involving E-Banking administrations in State Bank of India (SBI) situated in Gadag City. The example size comprised 50 respondents.

To break down the information, the basic typical framework and chance framework were used and the actual information was assessed utilizing the even strategy.

An extensive SBI profile

The State Bank of India, a public area banking and monetary administrations association, is settled in Mumbai and works universally. It has a rich legacy of more than 200 years and is the most established business bank in the Indian Subcontinent. The State Bank of India, formerly known as the Magnificent Bank of India, was created through the merger of the Bank of Calcutta, Bank of Bombay, and Bank of Madras, all established in 1806. It currently holds a 23% market share and handles 25% of all credit and deposit requests, making it the largest bank in India. Through its broad organization of in excess of 22,000 together divisions, 58,500 ATMs, and 66,000 BC stores, it offers support to the north of 44 crore individuals. The bank's basic beliefs incorporate help, straightforwardness, morals, graciousness, and maintainability, and it has effectively expanded its business through its 11 auxiliaries, including SBI

General Protection, SBI Life coverage, SBI Shared Asset, and SBI Card. SBI's famous e-banking administrations incorporate Computerized Teller Machines (ATM), Visas,

charge cards, brilliant cards, electronic assets move frameworks, versatile banking, web banking, and anteroom administrations.

Data Analysis and Interpretation

Table- 1: Classification of Respondents on the basis of Gender wise

Gender	No of Respondents	Percentage
Male	36	76
Female	12	24
Total	50	100

Source: Field Survey

The table underneath demonstrates that out of the multitude of respondents, 24

are female and 76 are male. This proposes that most of the respondents are male (76%).

Table- 2: Classification of the Respondents on the basis of Age Group

Age Group	No of Respondents	Percentage
18-25	31	62
25-35	13	26
35-45	3	6
Above45	3	6
Total	50	100

Source: Field Survey

In view of the above table, it very well may be seen that 62 of the respondents are between the ages of 18 to 25 years, 26 of the respondents fall in the age bunch between 25 to 35 years, 6 of them have a place with the age bunch between 35 to 45 years, and 6

respondents are over the age of 45. This shows that youngsters are more disposed towards utilizing E-banking administrations contrasted with other age gatherings.

Table- 3: Classification of the Respondents on the basis Educational Level

Educational Level	No of Respondents	Percentage
S SLC	6	12
PU C	4	8
Under graduation	25	50
Post-graduation	15	30
Total	50	100

Source: Field Survey

In Table 3, it very well may be seen that 12 respondents have finished SSLC, 8 have finished PUC/cooperation, 50 are

students, and 30 are post-graduates. This information recommends that most of the respondents are students.

Table:- 4. Classification of the Respondents on the basis have type of account in Bank

Type of Account	No of Respondents	Percentage
Savings Account	38	76
Current Account	3	6
FD Account	6	12
RD Account	3	6
Total	50	100

Source: Field Survey

Continuing on to Table 4, it very well may be seen that 76 respondents have an investment account, 6 have an ongoing record, 12 have an FD record, and 6 have an

RD account. The information demonstrates that most respondents have an investment account with SBI Bank.

Table- 5: Classification of the Respondents on the basis Know about E-Banking Services

Know about e-banking Services	No of Respondents	Percentage
Yes	38	76
No	12	24
Total	50	100

Source: Field Survey

Table 5 shows that 76 of the respondents know about e-banking administrations, while 24 are not. It tends to

be gathered that most of the respondents know about e-banking administrations.

Table - 6: Classification of the Respondents on the basis Factors Influence On Customers the Most to Use of Internet Banking Services

Factors	No of Respondents	Percentage
All-time availability	25	50
Ease of use	5	10
Nearness	20	40
Total	50	100

Source: Field Survey

As per Table 11, 50 respondents emphatically concur that untouched accessibility is a critical variable that influences their utilization of Web banking. Moreover, 10 respondents unequivocally concur that convenience is another significant variable, and 40 respondents

emphatically concur that nearness likewise assumes a part in their utilization. In view of this information, apparently, most of the respondents believe all-time accessibility to be a critical variable with regard to utilizing Web banking.

Table - 7: Classification of the Respondents on the basis Opinion about Benefits of E-banking Services

Factors	No of Respondents	Percentage
Timesaving	14	28
Inexpensive	11	22
Easy processing	20	40
Easy fund transfer	5	10
Total	50	100

Source: Field Survey

Taking a gander at the table underneath, we can see that 28 of the respondents accept that efficient advantages are the main benefit of e-banking administrations, trailed by 22 who believe that reasonableness is the principal benefit,

while 40 respondents feel that simple handling is the key benefit. This proposes that most respondents accept that simple handling is the essential advantage of e-banking administrations.

Table - 8: Respondents Are Extent Satisfied with E-banking Services

Factors	No of Respondents	Percentage
Highly Satisfied	10	20
Satisfied	35	70
Dissatisfied	4	8
Highly dissatisfied	2	2
Total	50	100

Source: Field Survey

The table likewise uncovers that 20 of the respondents communicated that they are profoundly happy with e-banking

administrations, while 70 of them are fulfilled, 8 are disappointed, and 2 are exceptionally disappointed with the banks'

internet providers. This shows that most of the respondents are happy with the banks' internet providers. All in all, it very well may be seen that most respondents are satisfied with the e-banking administrations given by SBI.

Significant Discoveries of the Review

1. Many of the respondents are male (76%).
2. Most of the respondents have a place in an age bunch between 18 to 25 years (62%).
3. Most of the respondents are students (half).
4. Most of the respondents who took part in the overview have a bank account in SBI (76%).
5. Most of the replies have some familiarity with E-banking administrations from the declaration (40%).
6. Most of the respondents know about E-banking administrations while opening the record (70%).
7. Most of the respondents came to be familiar with E-banking administrations from ads (40%).
8. Most of the respondents know about ATM/Check card offices given by SBI (60%).
9. Most of the replies utilize the versatile method of Web banking (94%).
10. The current review shows that most SBI clients use E-banking administrations for buying labor and product execution exercises.
11. Most of the respondents believed that the simple handling benefit is given by E-banking administrations.
12. Most of the respondents thought that the unequaled accessibility factor affected them to utilize Web banking.
13. Most of the respondents are happy with the E-banking administrations given by SBI.
14. Most of the answers thought that the simple handling benefit is given by E-banking administrations.

Suggestions

1. The bank staff should offer great types of assistance to the clients.
2. Legitimate preparation should be given to the staff with the goal that they can offer substantial responses to the clients.
3. The bank ought to instruct clients about E-banking innovation.
4. The bank ought to illuminate clients oftentimes about internet-based security procedures.

5. Banks ought to hold exhibits and give preparation to clients to make sense of the utilization, viability, and so on of a wide range of E-banking administrations.
6. Banks ought to support the utilization of E-banking administrations by offering motivators.
7. Banks offer different sorts of administrations, yet clients are not using them appropriately. They should use the offices given by the banks.

Conclusion

Currently, banking sectors offer various services through E-banking systems. Customers seek quality services that can provide satisfaction. A study was conducted with the help of M.Com scholars, which revealed that customers in the Gadag megacity are highly satisfied with E-banking services. However, it is possible to improve the available services to provide even better customer satisfaction, leading to the retention of existing customers and attracting new ones. Despite many changes in the banking sector in recent years, errors and mistakes still occur in operational activities. Customers still face various problems while using banking transactions. Therefore, banks need to focus more on the service sector and operational conditioning to make clients more comfortable and satisfied in dealing with banking activities.

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Effective Practice of Online Methods of Teaching in Indian Higher Education

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Abstract

In response to the COVID-19 pandemic, a web-based teaching approach has been implemented to ensure fairness in higher education in India. Students require support to adjust to this new mode of teaching. Effective online teaching practices can enhance the performance of both students and teachers in Indian universities and schools. Amid the pandemic, teachers can facilitate critical learning by encouraging students to develop skills in analysis, imagination, creative expression, and personal growth. Online teaching methods have become increasingly popular in India, with many higher education institutions offering fully online courses. This paper presents an overview of successful online teaching and learning practices for students and teachers based on secondary data.

Keywords: Online Instruction And Practice, Online Strategies For Educating, Online Advanced Education

Introduction

During the Spring of April 2021, many higher education institutions (HEIs) in India were busy completing their curriculum and preparing for semester-end exams in May/June 2021. However, the sudden outbreak of Covid-19 in India led to government-imposed lockdowns in May 2021, causing significant disruption to ongoing teaching, learning, and assessment activities. HEIs were caught off guard and unsure of how to manage the losses suffered by students. To address this situation, the only viable option left for HEIs was to shift to online modes of teaching and learning..

Less-prepared and under-trained employees of HEIs were tasked with conducting online education, as calls for online teaching and learning came from government and regulatory bodies. However, most employees in traditional HEIs were not comfortable with the transition to online teaching. Nonetheless, the Covid-19 crisis forced a shift from traditional teaching methods to modern approaches such as Zoom, virtual classrooms, and online courses.

During the Covid-19 epidemic, a number of well-known internet

communication tools played a crucial role in changing the direction of Indian education. These include, among others, Start.me, Neo, Classtime, Classwise, Ted-Ed, Coursera, Google Classroom, Bakpax, Right now, Skillshare, ClassDojo, Edmodo, Board Learn, Parlay, Docebo, Feedback Fruits, Udemy, WeVideo, WizIQ, Flipgrid, and Gynzy.

Sorts of Devices and Advances Utilized

During the COVID-19 pandemic, it has become necessary to utilize online platforms for teaching methods. Students are able to submit their assignments and projects online. To share my experiences with fellow teachers, I have compiled a list of resources and tools that I frequently use for teaching. These tools can also be useful for teachers in the current Work from Home situation. Some of the online teaching tools include:

1. SWAYAM, which stands for 'Study Networks of Dynamic Learning for Youthful Trying Personalities'. It is an integrated platform for various online courses across educational levels and subjects, including skill-based courses. SWAYAM is the main course delivering online MOOCs platform initiated by the Government of India.

2. SWAYAM Prabha is a group of 32 DTH channels that use the GSAT-15 satellite to continuously broadcast top-notch educational content. The channels provide curriculum-based video programs at the post-graduate, undergrad, certification, and school levels in a variety of subject areas, including the humanities, social sciences, performing arts, law, medicine, and agriculture.
3. The College of Minnesota has created a platform called Zoom for online classes. This platform allows for synchronous class meetings, where students can log in to a web conferencing system pre-scheduled by the teacher. This creates a fully instructor-managed environment for online classes. Zoom can be used on laptops, desktops, phones, and tablets.
4. NCERT has launched ePathshala to support the goals of Digital India in the school education and teacher training sector. This initiative provides online and mobile resources for all classes and all areas of the curriculum. Users can download and share e-books, strengthening materials, and resources for teachers, teacher trainers, and parents in English, Hindi, Sanskrit, and Urdu.
5. Google Classroom is a free tool for educators that allows for the creation of an online classroom. Students can connect with the teacher using their Gmail account. The teacher can share study materials, distribute individual or group assignments, and send feedback to the students.
6. Google Hangouts is a free service provided by Google that enables video calls with groups from anywhere.
7. Edmodo is a platform that provides resources for teachers, students, and parents to connect and access learning materials. It offers standard educational materials, measures student performance, and allows communication with parents.
8. YouTube is a video-sharing platform that allows users to upload, share, view, comment, rate, and add to playlists. Google owns the site, and it has become the biggest teacher in the world. Anyone can learn from the right selection of videos on YouTube.

Instructing and Learning Exercises Performed by HEIs

During the lockdown, employees of HEIs were faced with a huge task: planning and conducting support activities to accommodate a new set of systems and conditions. As a first step, instructors began sending scanned versions of written materials through messaging apps like WhatsApp and Telegram. Some also sent pre-recorded short and concise videos and voice lectures through these platforms so that students with low bandwidth internet connection could also use them. Teachers formed WhatsApp groups to send study materials, and assignments, and initiate conversations on students' related issues. They also reached out to students through phone calls to address their concerns. Many teachers started conducting online classes and organized webinars, workshops, and tutorials for students using platforms like Zoom, Skype, and Google Meet. Some even challenged themselves by conducting online tests and creative competitions.

Difficulties of Internet Instructing Strategies

1. In India, many students come from remote areas with low financial status in their families. Therefore, during the lockdown period in rural regions, students did not have access to a work desk or computer at home and their cell phones were not considered effective enough to participate in online classes.
2. The major challenge of online teaching methods was the unstable internet connection. When the videos and sounds of the students were turned off, the connection remained more stable, but this method of teaching seemed to be like talking to a blank wall.
3. Most students faced technical difficulties during online classes, such as continuous power outages and intermittent signal issues.
4. Among other challenges, teachers reported the level of understanding, lack of opportunities for meaningful interaction, the need for creative teaching approaches, and the technical management of classes as significant challenges.

Conclusion

As the above paper concludes, many higher educational institutions have faced challenges in conducting classes during the

COVID-19 crisis. Therefore, this is a great opportunity for HEIs to develop plans and policies that will motivate both teachers and students to continue using these newly learned practices. HEIs should recognize that helping teachers and students combine traditional and online learning practices will benefit everyone in the higher education sector. Online teaching methods have expanded the reach of higher education by reshaping and restructuring it. These methods focus on the relationship between mental and educational experiences to determine the best and most effective practices to be implemented in Indian colleges and schools.

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COVID Impact on Micro, Small and Medium Enterprises (MSME's) in India

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Abstract

COVID- 19 isn't only now global health, but it has come to be a profitable issue, in the entire world and the same is the case with India. Nevertheless, Indian frugality was formerly in a crunch of slow growth rate from last 2 times. Still, the arrestment of profitable conditioning with this COVID- 19 would further worsen the profitable growth rate of India. The growth rate of Indian frugality has formerly declined to 4.5 percent in Jan 2020, which was 7.7 percent in 2018. The World Trade Organization (WTO) has projected that global trade in goods is set to decline acutely between 13 percent and 32 percent in 2020 as entire nations of the world are battling with the COVID- 19 epidemic. Still, India has suffered veritably poorly as the biggest impact would be on the MSME sector because it contributes 48 percent to the total import hand basket of the country. These sectors are the largest employment furnishing sector and are contributing further than 30 percent to the GDP of the country. In this environment, this paper focuses on the following aspects impact on COVID 19 on MSMEs in India, colorful issues for the enhancement of MSMEs in India, and some of the recommendations for these issues.

Keywords: Impact on MSMEs, Indian frugality, COVID 19 impact

Introduction

The COVID 19 epidemic has foisted an unknown profitable shock and health shock across the globe, given the largely contagious nature of the complaint, the outbreak of COVID 19 has led to a pest followed by adding several cases reported in other countries across all mainland. In response to the outbreak, the Government of India has taken colorful policy conduct to contain the spread of contagion similar to administering social distancing and tone-insulation measures, trip bans and border checks, and lockdown of the entire country. They buy eventually time to prepare the country's healthcare system to battle the epidemic at its peak. India, which has a population of 1.3 billion spends about 1.6 of its total GDP on its healthcare structure, which is unrehearsed with its fragile and tattered healthcare installations. The study exploration paper about the impact of COVID epidemic on Medium and Small Enterprises(MSMEs), the backbone of Indian frugality, the end of the study is to assess the impact of

demand, force, and liquidity shock foisted by nimbus contagion on India's fragile MSME sector.

Review of Literature

1. **(Yi Lu, 2020).** Yi Lu and his authors observed that, because of a lack of complaint forestallment coffers, workers' failure to return to work, product lines intruded, and a dropped business demand, utmost SMEs were unfit to renew work. Several SMEs frequently educated cash inflow problems, and while they didn't have numerous to no deals, they also had to compensate for different fixed charges. Because these detainments in the resumption of work have placed immense strain on the viability of several small and medium-sized businesses, guidelines relating to cash-inflow relief for China and the other countries involved, work resuming, and stimulating demand help SMEs thrive and recover from catastrophe.
2. **(Narula, 2020)** Narula claimed that the pitfalls and openings would be different

in the long term grounded on the SME form. instead of a one- size- fits- all result, policy enterprises can also be sensitive to colorful forms of SMEs. The policy blend would have to transition from its original emphasis on short-term sustainability to a longer-term, strategic result that will encourage metamorphosis and development through creativity, internationalization, and networking. The policy blend will be a significant subject of concern.

3. **(Ahmad, 2020)** The effect of MCOs on SMEs was distributed as organizational challenges(i.e. insecurity of businesses; disturbance in the force chain; planning of implicit course in the business) and fiscal difficulties(i.e. difference of cash inflow; access to backing packages; peril of ruin). In the meantime, strategic and communication ways address crucial rudiments in ultramodern survival styles. The paper proposes many guidelines for implicit studies, companies, and agencies.

Objectives of the Study

1. To dissect the pre-covid-19 Indian frugality and MSME Sector.
2. To describe the impact of nimbus contagion on India's MSME Sector

Research Methodology

The study of the exploration paper about the impact of the Covid epidemic on Medium and Small Enterprises(MSMEs) is descriptive. The study is grounded on secondary data for the analysis of SMEs. The secondary data is collected from websites, magazines, and journals in India. The study critically analyses the once situation during covid epidemic of small manufacturing diligence in India.

Indian Economy and MSME Sector Prior to COVID-19

The MSME sector has emerged as one of the most vigorous segments of the Indian manufacturing sector and is a crucial pillar of Indian thrift. MSMEs are the backbone of Indian frugality and act as ancillary units to large diligence. They play a vital part in the socioeconomic development of the country through their significant benefactions to employment generation being labor ferocious and profitable commissions of backward areas. They're spread over frugality and promote inclusive industrialization in the country. There are around 6.33 billion MSMEs in the nation, and these businesses employ over 11.10 billion people nationwide

in non-agricultural fields. Every job created in the MSME sector or Manufacturing sector in fact has the multiplier effect of producing fresh 2- 3 jobs. Despite challenges, MSMEs have made significant benefactions to exports and economic development of the country and surfaced as one of the crucial motorists of Indian frugality over once five decades.

lately, Indian frugality witnessed a six-time low growth rate of 4.5 in the quarter of July and September 2019. This retardation comes at a time when frugality is reviving from the fermentation of two policy shocks in race, first, the demonetization of 86 of currency followed by the preface of new Goods and Services Tax reform. The structural changes in the frugality caused a short to medium-term liquidity crunch in frugality and the worst megahit were cash-dependent MSMEs. It's argued that this liquidity crunch also caused changes in the structural composition of frugality as numerous MSMEs couldn't survive the muddled state of demand in the frugality.

Impact of Corona Virus on India's MSME Sector

The lockdown of a country in response to an epidemic oppressively constrains the demand and force. Millions of migratory workers are stranded in sealed metropolises with no job or income. As the profitable conditioning is at a deadlock, millions of livelihoods and businesses are at stake. There has been a complete collapse of all Indian and domestic force chains with no movement of raw materials and finished goods due to abrupt checks of public and state borders. The frugality is also passing a demand shock as the spending is only limited to essential expenditures. The effecting further would be the impact of COVID - 19 on both MSMEs and larger enterprises; still the impact would be more apparent on the vulnerable MSMEs.

1. Civil lockdown halts all product conditioning; therefore the value-added product in a flash becomes zero except for certain essential goods.
2. The deficit of inputs will drive severe condensation in the product.
3. Indian MSMEs also need to be effect attack labor shock. The unforeseen protestation of lockdown touched off the movement of thousands of migratory sloggers to their separate will who were stuck in metropolises with no food, sanctum, and jobs. Numerous are still

stuck in metropolises hopeless to go back to their town lets. The enterprises will have to attack the deficit of labor since numerous will prefer staying at their town lets with their families.

4. A large element of their working cost is a stipend for sloggers. For MSMEs, change in the work process through a shift to work from home isn't possible because of the nature of product processes which requires the physical presence of labor at the units. Hence, the units are forced to pay hires to their workers in times of nearly no labor application and liquidity faults. The pay envelope pressure is putting labor ferocious MSMEs under extraordinary burden and numerous will consider lying off their workers.
5. The decline in global trade will negatively impact the encyclopedically exposed Indian MSMEs. MSMEs that export are more adversely affected than MSMEs that do not export because they are more prone to force chain disruptions and a loss of global orders.
6. According to the Directorate General of Commercial Information and Statistics, MSMEs account for 48.10 percent of all direct and lateral exports from India in FY 2018–19, or nearly half of all exports from India. The MSMEs import assiduity is worth INR 6 Lakh crore. Exporting MSMEs which regard 35 plums gems jewelry Essence, 8 electrical & electronics outfits, 11 papers of apparel and 40 other exports will find themselves in a precarious situation with the collapse of the transnational demand for their products.
7. Among COVID- 19 countries, the USA, China, Singapore, Hong Kong, and UAE are major import destinations for India. The value of exports to these countries is substantial, roughly about 38 of total export earnings. Still, these countries are in different lockdown stages which have convinced a global demand retardation that will shut down one of the growth machines of Indian frugality i.e. exports, and weaken the backbone of Indian frugality supporting exports i.e. MSMEs.
8. It's clear that nimbus contagion through its triadic extremity (i.e. demand, force, and labor extremity) will complicate myriad problems in the sensitive MSME sector. The multidimensional impact of nimbus contagion on the cash flow of

MSMEs can lead to perpetual checks of a lot of units. As a consequence, Millions of migratory sloggers will lose their livelihood. With the sustainability of MSMEs at stake the prospects of profitable development of India present a veritably caliginous picture considering MSMEs contribute about 30- 35 to the GDP.

9. Its impact on the negative on the employment situation. As a matter of fact, MSMEs are furnishing employment to further than 114 million people in the country and contributing around 30- 35 percent to the Gross Domestic Product. nevertheless, MSMEs are affected by colorful situations with this ongoing lockdown especially Microenterprises in the services sector are vastly impacted.
10. The chemical artificial industry is expected to suffer a significant megahit of Rs 12 crore 90 lakhs, according to the Confederation of All India Dealers (CAIT), which represents 70 million dealers in India, the majority of whom are from the MSME sector. Now eventually, the biggest challenge of COVID-19, which is going to worsen it further.

As a result, creating and implementing numerous support mechanisms for the businesses in this sector becomes essential on the side of the government and financial sector.

Policy Recommendations

The Indian government must help enterprises in opening as soon as possible in a phased manner. The expression of probative policy must take into consideration the demand, force, and labor shock and must be acclimatized to the unique challenges faced by MSMEs. The probative policy frame could consider the following recommendations:

1. Wage envelope support can be given to labor ferocious MSME units to incentivize them to retain their workers and to avoid the colossal number of layoffs by enterprises. The government can offer to pay a part of the stipend to the workers which will relieve the financially freighted MSMEs from huge liability.
2. With the uniform rate of interest that would free them up from having to focus on liquidity issues so they can focus on their core businesses, the government ought to motivate banks to lend more money to the MSME sector.

3. The government should reduce duties on significance to guard MSMEs from their disaffection prices of imported inputs. The government should support MSMEs as a prerequisite for well-defined policy expression and well-targeted policy perpetration to beget the recovery of the backbone of frugality.

Conclusion

During the COVID-19 period all the MSMEs' are floundering. Their biggest problems have been declining demand and a broken force chain. Micro, Small, and Medium Enterprises have come to the backbone of Indian frugality. This sector is playing an essential part in furnishing employment generation and poverty relief. On the other side decline in the demand for its products due to the epidemic has started sickness in this sector, which results in job losses, import extremity, and also credit extremity in this sector. This can be done by relating the imported inputs and easing the establishment of MSME units of similar factors. The growth prospects of MSMEs are high and they have the capacity of propelling India out of recession handed the government will have to nurture them just like a raspberry feeds a baby raspberry as the frugality limps back to normality. Ultimately, just like nurtured baby catcalls these MSMEs will spread their bodies and fly while driving the Indian frugality towards new highs of growth rate.

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Digital Payments System and Rural India: An Overview

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Abstract

Pastoral areas, home to two-thirds of the country's population, at present 870 million people. Rural India has a significant impact on the profitable progress of the country, and with the arising changes in ICT penetration, pastoral druggies will constitute about half of all Indian internet druggies in 2022. The digital enterprise carried out for pastoral parts, the need for perfecting the trends of digital payments model in pastoral India is veritably significant. Considering the benefits like transparency in deals, it's veritably essential that the metamorphosis towards digital payments, indeed in the pastoral frugality disempowered. Many changes took place in recent history like the launch of numerous digital holdalls like – Paytm, MobiKwik, Free Chargeetc. and the government launching numerous UPI(united payment interface) results and the BHIM apps for a smooth transition to digital payments. The idea of this exploration paper is to study the positive impact that the Digitization of the payment system in Indian frugality will have on the development of the pastoral Indian Sector.

Keywords: Digital Payment, Rural and Urban India, Digital deals

Introduction

Digital India4.0 started and it can transfigure the country into one of the world's most digitized societies. Due to the impact of COVID – 19 epidemic, India saw a massive shift towards digital deals. This is in tune with the high minister's vision of a Digital India, and this is the seasonable time to make a robust frugality through safe, secure, and accessible digital payment solutions. In the realm of financial transactions, India's 'Digital India' initiative received a significant boost four years ago with the government's demonetization move. From that point forward, there has been a recognizable expansion in devices and assets accessible in the e-installment area. Indian purchasers presently have different choices for making on the web monetary exchanges, including e-wallets, JUnited Payments Interface (UPI) frameworks, and Unstructured Supplementary Service Data (USSD) administrations, and that's just the beginning. India is a portable first country, with a huge number of new clients accessing the web every month. Starting around 2022, India's web entrance has developed to 44%, arriving at a sum of 784 million individuals

(as indicated by the ICUBETM report), permitting banks to offer net-banking and versatile financial administrations to their clients. Since demonetization, even customary banks have started boosting clients to make advanced installments straightforwardly from their ledgers.

Just 20.26 of peaceful India and 64.84 of the urban India populace have web access and by. The country's 80 pastoral population and 35 civic population are yet to borrow a digital mode of payment. Besides digital bill payments, the people abiding in remote townlets are likewise unfit to pierce indeed the introductory banking installations and proper infrastructure. The pastoral population of India boasts around 70 of the total population in the country. A McKinsey report states that despite the elevation of urbanization, the pastoral population is likely to regard for 83 of the total request in India by 2025.

Pastoral areas are home to two-thirds of the country's population of some 870 million people where much of the challenge lies in achieving cashless deals for the rest of the decade. It's estimated that pastoral druggies will constitute nearly half of all

Internet druggies in 2022. The number of connected pastoral consumers is anticipated to increase from 120 million in 2015 to nearly 415 in 2022. Over 73 people in pastoral India haven't done any digital deals. So the real problem lies there. The government has taken ways including publicizing zero balance accounts for people, but the growth of Bank branches has been low.

Objectives of the Study

1. To study digital payment and cashless frugality through Aadhaar pay in pastoral India.
2. To perceive the DigiDhan Abhiyan opts for Paytm in Rural India
3. To know the problems and challenges of digital payment in pastoral India
4. To matriculate the prospects and the road ahead of the study and offer applicable suggestions for the effective perpetration of digital payment..

Digital Payment in Pastoral India

Farther than a portion of 1,000,000 duties helping position campaigners in various peaceful plans presently have another objective to enlist individuals and shops in-economy and train them in credit-only arrangements. And despite an incitement of Rs 100 for making each vill shop accept any form of digital payment, levies across India are facing a daunting task. So far, just 55,000 merchandisers have gone digital, and 2.5 million pastoral Indians enrolled in cashless deals after the government recalled Rs 1,000 and Rs 500 notes on November 8. The National Payment Corporation of India(NPCI), to ease formats of two payment systems USSD and UPI. In townlets, people prefer fingerprints over other security features and it'll help in advanced rates of registration. But indeed the pastoral development ministry's own set-up for cashless frugality needs major advancements.

Out of the 1.1 million active workers of the Centre's pastoral job scheme Mahatma Gandhi National Rural Employment Guarantee Scheme, just 34 have an Aadhaar-linked bank account. This comes amid a strong drive for cashless frugality by Prime Minister Narendra Modi a decision criticised by the Opposition as anti-poor. Now, the pastoral ministry has set an ambitious target to get Aadhaar- linked bank accounts in another 35 million job accounts. But bare registration won't be enough, as openings to

distribute cashless are still limited. In a review meeting, the Kant panel set up that out of 160,000 portion shops in the country, only 35 had machines to identify the biometrics of MGNREGA workers. But there's a massive interest among people, particularly the pastoral youth, to borrow new ways to go cashless. The impacting factors attributed to similar transformations are adding compliance conditions, demonetization impact, impulses, and enterprise from governments encouraging digital deals.

Cashless Economy through ' Aadhaar Pay ' in Pastoral India

In an attempt to encourage poor and illiterate people in pastoral areas to make digital payments, the government is promoting Aadhaar Pay which ensures fiscal deals by just using points. In an attempt to encourage poor and illiterate people in pastoral areas to make digital payments, the government is promoting Aadhaar Pay which ensures fiscal deals by just using points. Aadhaar Pay – the trafficker interpretation of the Aadhaar- enabled payment system(AEPS) which is formerly in use – will come to a volition for all online and card deals that bear word and PIN. Through this app, merchandisers can take cashless payments from a client who's only needed to give his Aadhaar number, the name of the bank from where the plutocrat is to be subtracted, and a cutlet print for authentication.

A Times of India report cited the Unique Identification Authority of India(UIDAI), the app works on any android-grounded phone, indeed a lost cost one, with an attached cutlet biometric device. This ensures digital deals which are cardless, PINless. There's no need for a smartphone for the guests. The government has requested banks to enlist 30- 40 merchants per branch so they are qualified to accept clients' cashless payments in order to spread the adoption of Aadhaar Pay throughout merchants in pastoral regions. Five banks were gone live with Aadhar pay services in pastoral areas like Andhra Bank, IDFC Bank, IndusInd Bank, State Bank of India, and Syndicate. Whereas several other banks are in the process of launching aviators on the app, the plan is to identify the deals made through the app independently in order to incentivize merchandisers for the long-term sustainability and scalability of the system.

DigiDhan Abhiyan opts for Paytm in Rural India

Of the 2.98 lakh merchandisers enlisted, 82,746 were Paytm wallet users who lived in pastoral regions and were given access to the scheme's digital payment capabilities. Nearly one in three pastoral persons recently enrolled on electronic payment systems under the Centre's outreach program for digital deals in the outback the DigiDhan Abhiyan has registered on the Alibaba-backed mobile portmanteau Paytm. Compared with the 28.92 percent share of Paytm in the total pastoral citizens registered under the scheme, since its launch, the relinquishment of the government-backed Unified Payment Interface(UPI) and unshaped Supplementary Service Data(USSD) schemes was cumulatively just over 20 percent, of the government data showed. The Abhiyan, launched on December 9, will-position entrepreneurs of the Common Service Centres(CSCs) launched by the government as a strategic foundation of its Digital India program to organize shops, where bankers and other stakeholders are invited. These entrepreneurs explain colorful modes of electronic payments to pastoral citizens.

According to the information handed by the Ministry of Electronics and Information Technology(MeitY), as on December 28, an aggregate of 1.05 crore citizens in pastoral areas of the country had been brought on-board colorful digital payment tools during the period, of which the biggest knob 30.34 lakh were on Paytm. Among the 2.98 lakh merchandisers enrolled, 82,746 merchandisers in pastoral areas enabled under the scheme to use digital payment tools were on Paytm portmanteau.

According to the format, the vill position entrepreneurs, while registering merchandisers under the program, have to conduct sale verification. Under this verification process, as per the primer on the program's website, the entrepreneur transfers Re 1 to the trafficker, and the trafficker also transfers Re 1 back to the entrepreneur. Interestingly, while the primer has listed the bank account details for net-banking or USSD sales, and a phone number for portmanteau deals, it shows the QR law option only for Paytm. After Paytm, among the pastoral consumers, the State Bank of India's portmanteau SBI Buddy was the

alternate most enrolled tool at 19.58 lakh heirs.

Prospects and the road ahead in pastoral India

1. The Jan Dhan Aadhaar Mobile (JAM) can promote the habit of online shopping. It is spreading to all of the nation's secluded corners. Government transfers (DBT) are frequently done via the JAM mechanism. This will assist individuals in acquiring digital sale awareness.
2. The 5 A's of promoting fiscal addition through cashless payment instruments are vacuity, availability, adequacy, affordability, and mindfulness.
3. Government should assure introductory musts in pastoral areas and concentrate on developing structure. Special drives through seminars, sodalities, panchayats, etc can help produce mindfulness about cashless/ banking deals.
4. Fiscal knowledge is a must-have for bringing further and further people to the digital platform. Digital payment or payment through banks, rather than paying cash should be encouraged.
5. Relation of all weal conditioning with bank accounts is a veritably strategic step. A strong banking base is an introductory prerequisite for cashless frugality.
6. Targeted fiscal education programs can ameliorate fiscal chops and Credit Management, and increase account power in pastoral India.

Problems of Digital Payments in Pastoral India

These are the problems that may do in pastoral areas if digital payments system is applied in India.

Electricity isn't handed to all the villages. Quality electricity to be handed to townlets, Digital string isn't covered to the total of India, townies may not be suitable to buy smartphones or laptops, Operations of accounts, conducting deals through mobiles and to make online payments need training, ATM centers to be handed at least at a distance of 3 km for easy access, At present there are 480 accounts for every 1000 grown-ups. This needs rectification and covers the entire adult population, There are only 40000 banks for six lakh townlets. At least one bank for every 5000 grown-ups is to be handed, There are 712 million disbenefit cards in rotation. At present these cards are used on

an average only 12 times a time in ATM counters and two times a time at the point of trade. It's veritably low and needs enhancement..

The below-mentioned factors of provision of quality electricity, furnishing digital connection, banking installation, education to operate smartphones, etc., need address before the perpetration of cashless deals or digital payments systems..

Challenges of Digital Payment in Rural India

Some of the significant challenges of the digital payments system in India are as follows

1. Utmost of Indian people buying goods and services only for cash grounded sale habits in the pastoral area; they need not go digital payments system either through using a disbenefit card or credit card or RTGS or any other. For decades India has been a cash-grounded frugality.
2. Mindfulness program would be conducted in the pastoral areas about using digital payments like Smartphone grounded deals.
3. The other important issue of digital payments is the lack of technology used in the pastoral people and also the reach of technology to colorful locales.
4. ATM use is substantially for cash recessions and not for settling online deals
5. Limited vacuity of point of trade outstations utmost of the POS outstations remain in civic/semi-civic areas.
6. Mobile Internet penetration remains weak in pastoral India In India there's poor connectivity in pastoral areas. Lower knowledge position in the poor and pastoral corridor of the country.
7. From the client's point of view, the lack of mindfulness of the client, still the challenge of gaining the trust of guests is one of the crucial challenges facing mobile wallets, and digital sale service providers like banks, fintech companies etc.
8. Another point of client view, the cost of deals that are levied over the client is also a major concern. For illustration, over every disbenefit card sale, some retailers are charging the sale cost from guests and it's a fresh burden.

Suggestions

1. The formation of digital financial systems by the populace in pastoral regions might

be greatly aided through tone help groups (SHGs). More and more SHGs need to be assigned the role of "Bank Mitras," or "friends," who may provide assistance to banks, postal services, and banks in line with the growth of digital thrift.

2. pastoral social structures similar to Youth Clubs and Mahila Mandals and Panchayati Raj Institutions should be amped for the propagation of digital pastoral frugality.
3. The Gram Sabhas in Panchayati Raj Institutions and Ward Sabhas in ULBs must take up the issue of digital frugality at the vill position.
4. All the line department functionaries are similar to academy preceptors, health workers, vill Development officers, Anganwadi workers, etc. must educate the people about fiscal addition and digital frugality
5. Like Pulse Polio Campaign, the Digital India Campaign doubly or thrice in a time in a mass scale can be conducted in the country. It's an applicable way to propagate the digital India crusade both in pastoral as well as civic areas.

Conclusion

Technology systems, armature, and structure are mature enough to enable the billion civic people in India to distribute digitally. It's now a matter of adding mindfulness distribution to pastoral India. The Niti Aayog panel one-payments is working to promote the use of digital payment systems in pastoral India, where card-grounded payments are more common in the pastoral area. The Indian frugality will digitalize in the pastoral area through mobile grounded payments that are briskly and cheaper to roll out. It's a matter of adding awareness to pastoral areas. Advanced results in terms of UPIs, mobile holdalls, and digital deals with further secured features, ease of deals, and reduced cost of managing the digital payments could lead to further potential development and support in bettered conditions of digital payments recycling in pastoral sectors. However, public Payments Corporation of India(NPCI) new payment operations are designed to work on all phones with or without the internet, and indeed without phones is helping pastoral India.

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A Study on Pradhan Mantri Kaushal Vikas Yojana with Special Reference to Skill India Programme among the Youth in Gadag City

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Abstract

India is the second largest population in the world; the maturity of the population is youth that's 65 percent youth population below the age of 35 times. Hopefully, the youth will be suitable to match up to the occasion and contribute to realizing India's eventuality as a development of the country. The Skill India program is ambitious plans to skill 500 million youth by 2020. The Indian government has set up the National Skill Development Council (NSDC), in collaboration with the private sector, and it is supported with backing from international agencies like the World Bank. A program called the Pradhan Mantri Kaushal Vikas Yojana aims to give young people access to skill development. It was launched with the vision of empowering young people with the necessary skills to succeed. The check has been done only in Gadag megacity among the different youth taking skill training programs under the scheme of Pradhan mantra kaushal vikas yojana. The present study is grounded on primary and secondary data with regard to the impact and performance of kaushal vikas yojana.

Keywords: Skill Development and Training, Kaushal Vikas Yojana, Skill India

Introduction

The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) will shortly be launched by the Indian government with the goal of making India the world's talent capital. Blessing to this scheme was given in March 2015 and will be enforced by the Ministry of Skill Development and Entrepreneurship. This would be done by furnishing training to the country's youth on colorful job-specific chops. In the world, India has one of the most youthful population biographies with over 65 of its population below the age of 35 times. Our country honors the significance of youth in society so that colorful steps are taken to insure that the pool of hereafter has unborn-ready chops. thus, the Hon'ble Prime Minister Narendra Modi of India in March 2015 introduced a skill India conception and it was launched by them on 15th July 2015 on the Occasion of World Youth Chops Day. Skill India is a program initiated by the Government of India. The government of India has initiated colorful programs over time like National Skill Development

Mission(NSDP), Pradhan Mantra Kaushal Vikas Yojana(PMKVY), and Skill Loan Schemeetc. under Skill India.

Review of literature

Aggarwal S. (2016) has written a paper that attempts to illustrate the significance of the Central Pillar of Employability Skill Development. This exploration paper is trouble to understand the present skill capacity and the challenges faced by the skill development system in India along with their results. To assess the position of skill capacity of the Indian pool with the help of education and vocational training. The present study also set up that both the government and its mate agencies have launched colorful measures enterprise for the effective perpetration of the skill development system in frugality. And still, it faces a number of undetermined issues and challenges that need immediate attention from the policymakers. And it also finds that these programs are unfit to produce avenues for casual workers and aren't of the scale demanded.

Okada A. (2012) has handed on the content Chops Development for Youth in India Challenges and Openings. The paper has linked that recent action to grease youthful people's transition to the world of work. India, facing veritably complicated and tremendous challenges in bringing up the chops development for youths, for several reasons. This paper has explained a living chops gap in India between what diligence demands are grounded on recent rapid-fire profitable growth and the chops that youthful people acquire through vocational training. It also suggested that India must raise its investment in education and training for youth, which helps to promote artificial development and achieve sustainable growth. Punjani delved into the content "A study on the demand of chops development for the success of Make in India design". The idea of the study was to analyze the demand and position of skill development in India. The data is collected from secondary sources and used descriptive exploration design for this exploration. The study concluded that the being skill development policy in India needs critical treatment. The main findings of the

papers are that only 10 of the Indian pool has formal training in the form of advanced education, specialized education, or vocational training. India has 4.3 million a periodic training capacity, which is lower than 20 of the assiduity demand of 22 million professed workers a time.

Objective of the Study

1. To analyze the socio-profitable of heirs taking part in Skill India training.
2. To examine the major problems faced in tone- employment after training by heirs..

Research Methodology

The present study is descriptive and logical in nature. The data can collect from both primary and secondary sources. The primary data has been collected by conducting a field check of 60 sample replies with the help of well- a structured questionnaire in the Gadag megacity. The secondary data has been collected from colorful websites. The study has espoused the convenience slice fashion, the sample size is determined at this position after taking into account a number of factors similar as time, plutocrat sweats, and volume of work.

Analysis and Interpretation

Table – 1: Classification of Respondents on the basis of Socio- Economic Profile

Profile	Variable	Number of respondents	Percentage
Age	Below 30	24	42
	31 – 40	23	37
	41 – 50	9	15
	51 and above	4	7
	Total	60	100
Gender	Female	24	42
	Male	36	58
	Total	60	100
Education	Illiterate	6	10
	Primary	9	15
	Secondary	21	35
	Graduate	12	34.28
	PG and Above	12	34.28
	Total	60	100
Marital	Married	38	63.33
	Unmarried	22	36.67
	Total	60	100

(Source: Collected through primary data)

The study revealed the relationship between the named demographic variables of the replies and the problem of severance faced by youth in the study area. Out of 60 repliers who were taken for the study it has been linked that the utmost 58 percent of the repliers are manly and 42 percent are the

lady which depicts that the lady is less interested in comparison to manly repliers who are served by Skill India program conception when compared to manly repliers. Regarding the age of the respondents, 42% of the respondents are under 30 years old and have benefited the most through the Skill

India program, followed by 37% of respondents between 31 and 40 years old, 15% of respondents between 41 and 50 years old, and 7% of respondents over 51 years old.

Table - 2: Classification of Respondents on the basis of training under the skill India programme

Training	Number of respondents	Percentage
Yes	58	96.66
No	2	3.34
Total	60	100

(Source: Collected through primary data)

It's set up that Out of a total of 60 replies 97 of the repliers have experienced training under the public Skill India development

program and 5 of the replies haven't interested to attend the training program.

Table – 3: Classification of Respondents on the basis of Area of training covered

Training	Number of respondents	Percentage
Transportation	7	11.66
Agriculture and food processing	12	20
Trading	--	--
Weaving	--	--
Handicrafts	3	5
Horticulture	4	6.67
Fishing	4	6.67
Construction	8	13.33
Retail	11	18.33
Jewellery designing	5	8.33
Banking and financial services	8	13.33
Tourism	--	--
Total	60	100

(Source: Collected through primary data)

It is observed that out of the 60 replies, 20 of the repliers have experienced training, as numerous are trained in the retail area, 18 in

the husbandry area, 15 in banking and fiscal services, 12 replies are trained in construction and transportation.

Table – 3: Classification of Respondents on the basis of training benefits

Benefits availed	Number of respondents	Percentage
Self confidence	40	1
Entrepreneurship and skill development	32	4
Knowledge of technological development	38	2
Mental development	25	6
Technical skills	22	3
All the above	32	5

(Source: Collected through primary data)

Indicating the rankings of the colorful repliers have employed all the benefits out of the training provisioned to them. Among training benefits repliers have given first preference for tone Confidence followed by Skill Development, alternate precedence is given Specialized chops, third rank is appointed to Mental Development, 4th preference is given Entrepreneurship and skill development, 5th rank is given all the

below choices and Knowledge of Technological Development.

Findings

1. Around 42 of the replies are manly which is taradiddle below 30 times the age group which is further served due to public chops India development programs.
2. In the check it depicts that the maturity of named replies is educated up to the

secondary position. Due to this, it faced the problem of severance among the youth. The government of India takes the necessary steps to reduce the severance problem by running the chops development program.

3. The fissionability of the colorful schemes is shown on the basis of good response among the youth, as numerous as named repliers have experienced the skill development program under the different area which helps them to develop the quality of chops and also motivate them in their overall development.
4. The check indicates that the repliers had faced severe problems setting up their own business indeed after the training which is bear to be answered.
5. public chops India development program has motivated and encouraged all the named repliers for tone- employment and generating employment openings for others.

Conclusion

In concluding the exploration paper, this study can be done in the Gadag megacity with the help of M.Com scholars; Our youthful population is faced with colorful problems like severance, poverty, etc. Due to this, the government takes several ways to reduce these problems by introducing several ways skill development and tone-entrepreneurship schemes. A great step is taken by youth by motivating the gift to make the future bright. These several schemes help the youth to develop the quality of chops, skilling, and re-skilling in colorful areas through a training program that automatically increases the personality development and overall development among the youth in the Gadag megacity. It helps the youth to get the job in colorful sectors and it's possible only through employment generations and social security for the youth to accept responsibility.

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MOOCs: A Key Factor in NEP – 2020 to promote digital learning among Higher Education Institutions in India

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Abstract

Massive Open Online Courses (MOOCs) are an additional concept in the Indian higher education structure; the Public Authority of India has launched a brand-new MOOCs foundation named Swayam; The Legislature of India has made important strides in arriving at the rustic region through MOOCs to give free training. It addresses open access, worldwide, free, video-based educational substance, recordings, issues sets, and discussions delivered through a web-based stage to high-volume members intending to take a course or to be instructed. With overall setting adaptability, MOOCs assemble researchers and similar individual students all over the planet. This paper depicts the ideas, importance, and development of MOOCs. Further, this paper likewise accentuation the kinds of MOOCs, their famous stages, and suppliers and furthermore depict the significance of MOOCs as a critical calculation of the current Public Training Strategy 2020 to advance computerized learning among advanced education organizations in India. At last, it depicts the advantages and potential difficulties that it faces in the current situation.

Keywords: Advanced Education, Online Schooling, Rustic Region, Computerized Learning, SWAYAM;

Introduction

Dave Cornier of the College of Rulers of Edward Island and Bryan Alexander of the Public Organisation for Innovation in Liberal Schooling used the term MOOC for the first time in 2008. All in all, MOOC additionally alludes to an internet-based course focused on limitless cooperation and open access to the Web. Web-based learning involves innovation for conveying the courses in an advanced education framework. Schooling with innovation is considered a most encouraging improvement in higher education. In the globalization present school system, the idea of learning and educating has gone through an enormous change present worldwide learning climate. This permits getting to the course material whenever, anyplace, associating different students, and gaining admittance to the substance disregarding any geological limits. The huge changes being used in innovation in web-based schooling have seen the rise of the idea of Massive Open Online Courses (MOOC).

A MOOC stage in India

With the coming of innovation, e-learning is quickly picking up significance and speed. With the public authority targeting digitizing India with its 'Computerized India' drive, instructive foundations are likewise working couple to assist with satisfying the goal. Massive Open Online Courses (MOOCs), which permit flexible learning at their own leisure, are becoming more and more popular among learners as well as employed individuals. Such is the fame of MOOCs has been sent off by Top state leader Modiji like 'SWAYAM', a MOOC stage in India, which will have two courses from the Indian Organization of Innovation, Bombay, and one from Princeton College, U.S. The courses can be gotten liberated from cost. Today, a few other Indian establishments have worked together with SWAYAM and a lot more courses are on offer.

About MOOCs in India, the greatest benefit of MOOCs is getting to concentrate on satisfied showed by the best personnel at

some random time."The greatest benefit of MOOCs is the comfort of learning. It conveys quality schooling to understudies, independent of their geological area. MOOCs permit understudies sitting in the most remote corner of the world to gain admittance to the best of instructive substance at extremely pragmatic and efficient costs. Aside from concentrating on materials, understudies get to partake in live conversations which assist them with getting their questions explained and communicating with teachers from top colleges and universities. For MOOCs, an educational cost charge is free. Understudies just have to pay an ostensible expense for the assessment charges each semester. Right now, all declaration courses are on offer on the MOOC stage. In excess of 100 courses through MOOCs on the deal and top colleges from abroad to send off their MOOC.

NEP required lift to MOOCs in India

Among many changes that the nation is going through as of now, the New Schooling Strategy 2020 harbinger of directional change. The new strategy, which has come following 34 years is supposed to bring new open doors for India's schooling area in the 21st hundred years, Giving a critical impulse to the job of innovation in all parts of education is set. NEP 2020 has been lifting to MOOCs in Indian advanced education organizations a portion of the focus is recorded beneath

1. **Computerized Foundation to Embrace Web-based Getting the Hang of Methods:** during the pandemic circumstances, Indian advanced education organizations take on internet learning techniques for further developing homeroom training. The absence of offices to go to online classes felt by understudies featured the computerized partition in the country. The new arrangement resolves these issues. As we move towards another ordinary of web-based learning, NEP lays a unique spotlight on creating a computerized foundation.
2. **Foundation of New independent body:** The government has plans to set up a new independent body National Instructive Innovation Discussion (NETF) to direct the limit building, foster e-content and give a stage to instructive organizations to guarantee a more

extensive reach of online schooling in the times to come.

3. **Virtual labs through explore-based learning:** The production of an ever-increasing number of virtual labs will give understudies remote admittance to active examination-based learning. or on the other hand online illustrations mirror that the strategy lays areas of strength for experiential learning. Consequently, the reception of these state-of-the-art advancements will bring about upgrading vivid growth opportunities.
4. **Virtual homerooms and e-content:** The NEP 2020 arrangement is modern in nature as it means to make virtual homerooms available to each understudy in the country region of India. The savvy homerooms will give areas of strength for a to start intuitiveness through online classes and live conversations.
5. **Advanced proficiency:** The NEP 2020 will be an innovative arranged schooling strategy that will clearly help the adolescent and set out business open doors. The new arrangement centers around advanced proficiency moving to the computerized stages, learning of contemporary subjects like Man-made consciousness, Enormous Information Examination, and AI is the need of the hour. The new methodology of expertise based on gaining from an early establishment level of scholastics will assist students with distinguishing ranges of abilities, subsequently engaging them to be future-prepared for the gig market.

MOOCs as a vital element to advance computerized learning among advanced education organizations

Among many changes that the nation is going through as of now, the New Training Strategy 2020 is a harbinger of directional change, this arrangement which has come following 34 years is supposed to bring new open doors for India's schooling area in the 21st hundred years. Giving a huge force to the job of innovation in all parts of education is set. It likewise has an exceptional spotlight on computerized schooling or online schooling through giving MOOCs like DIKSHA (Computerized Framework for Information Sharing) and SWAYAM (Review Networks of Dynamic Learning for Youthful Trying Personalities) with new knowledge to prepare content, in-class assets, evaluation helps,

profiles and so on that will permit consistent connection. MOOCs can possibly affect advanced education in two ways: further developing training and empowering establishments to foster unmistakable missions that will incorporate contemplations about transparency and access for various gatherings of understudies. MOOCs likewise furnish establishments with a vehicle to think imaginatively and creatively and to investigate new educational practices, plans of action, and adaptable learning ways in their arrangement.

Difficulties of MOOCs

The greatest difficulty that MOOCs face is that of high dropout rates, even though enormous quantities of understudies might enroll for MOOCs, the quantity of understudies really finishing the tasks is substantially less. One more test that it faces is mixed with homeroom guidelines. As of now, MOOCs just have a beneficial worth and are not in that frame of mind to totally supplant study hall guidelines. At long last, bosses may not actually perceive the qualifications that accompany MOOCs. Different difficulties of MOOCs are recorded beneath:

1. Absence of mechanical infrastructure: MOOC needs web associations for getting to the substance of the section conveyed in their courses. Be that as it may, in the provincial regions the greatest difficulties of web access in the country.
2. Absence of oral relational abilities among the students and to further develop this they need to go through a conventional program. Likewise, watching the course recordings of part satisfied on a PC screen can cause the student to feel terrible or separated.
3. Because of this, the inspiration of students falls bringing about exiting from the course.
4. The courses that require lab or active preparation may not satisfy the reason totally in web-based mode. In this manner, the test looked at by MOOC could be the reception of innovation by students.
5. It could be conceivable that educators are not actually sound to make courses happy involving the devices of the rustic region in the country.
6. English-based courses as offered by means of current MOOCs frequently

deters student to proceed with their courses

Conclusion

In closing, one might say that MOOCs are the furthest down the line expansion to the field of computerized learning or internet learning and turning into a significant piece of the current schooling system. Open cooperation for everybody, free access, the least vital capability is some required in this period. Besides, they help one increase training from the best personnel of top colleges, where admission to conventional showing classes is only a fantasy. It is additionally useful for people who need to succeed while being in positions by acquiring aptitude in the exact moment field of their advantage. They are known to teach ability abilities, advancement, and learning push in their clients. In a nation like India, where the vast majority living in far-off regions don't have satisfactory admittance to expertise improvement and quality mastering MOOCs can assume an urgent part.

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A study on Family Planning in India: Its Background, Practices, Relevance, and Effects.

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Abstract

According to a recent UN projection, India's population will surpass China's by 2028 after reaching 1.26 billion people in the current year and continuing at its current rate of development. Although the study makes it apparent that the pace of population growth has decreased recently as a result of the successful implementation of family planning and family assistance programmes, the rate is still expanding considerably more quickly than in China. India's population is expected to increase over the long run because of the country's high national fertility rate. The Indian family planning programme, however, cannot be disregarded. Let's talk about family planning in India and how, to some extent, it has helped to address the issue of population increase there.

Key Words- Family, programme, population.

Introduction

History of Family Planning in India

The Indian government has been concerned about population increase for a very long time. The Family Planning Association of India was established in 1949, immediately following independence. In 1952, the nation introduced a comprehensive family planning programme, a first for developing nations. Initially covering birth control pills, this eventually expanded to encompass mother and child health, nutrition, and family welfare. The ministry of health established a separate family planning department in 1966. In 1977, the Janata Government, which was in power at the time, created a new population policy that was to be embraced willingly rather than by coercion. Additionally, Family Welfare Programme was substituted for Family Planning Department..

Family Planning in India: More Success Expected

The family planning programmers are successful to a great extent but India still has a long way to go. Family planning has always been the main emphasis in population policies adopted by the Government of India. However, there is a need of more public awareness and public participation. Gender

inequality, preference of sons over daughters, low standard of living, poverty, traditional thought processes of Indians, age-old cultural norms continue to cause poor family planning practices all across the country.

The Government of India's Family Welfare Programme (FWP) promotes family planning.

1. This project is financed by the federal government, and all 50 states get 100% of the federal government's financial support. The following are the primary tactics for carrying out the FWP plan successfully:
2. FWP is included into various medical procedures.
3. Rural regions are where the emphasis is.
4. 2-child families are considered the typical.
5. using terminal tactics to space out the births of two children
6. Door-to-door advertising initiatives to persuade families to embrace the small-family norm
7. Encouragement of breast-feeding; adoption of the proper marriageable age (21 years for males and 18 years for women); establishment of the Minimum Needs Programme to improve the level of life of the populace.

8. giving impoverished individuals financial incentives to use family planning methods.spreading knowledge about family planning through media including puppet shows, radio, newspapers, and television.

Family Planning Is Important in India

Family planning encompasses more than just contraception and birth control. It is crucial for the mother's and her children's overall health as well as the improvement of the family's financial situation. First and foremost, family planning emphasises the need of spacing births at least two years apart. The health of both the mother and the kid is significantly impacted by having children within a gap of more than five years or less than two years, according.

Expenditures are associated with giving birth, and as the number of children in a family grows, so do the medical expenses associated with pregnancy, birth, and the high expenditures associated with raising the children. It is the parents' responsibility to give their children food, clothes, housing, and education. Adopting family planning may significantly improve any family's ability to stabilize their financial situation.

Impact of Family Planning Programme in India

1. The country as a whole is significantly impacted by the steps the government has made to execute the Family Planning Programme. In 1952, India became the first nation in the world to launch a public family planning programme. Some notable accomplishments, according to the 2011 Family Welfare Programme, are as follows: Awareness of one or more methods of contraception.
2. Increase in the usage of contraceptives across time.
3. Understanding of female sterilization, which is regarded as the most common and safest way of contemporary family planning.
4. An increase in condom use.
5. Increased awareness of birth control tablets.
6. Low fertility rate among women with education. Fertility rate low among higher income groups.

Indian Family Planning: More Success Is Expected

While India has made enormous strides in its family planning schemes, there is still a long way to go. The Government of

India has traditionally placed a strong focus on family planning in its population plans. More public engagement and awareness are necessary, though. All around the nation, improper family planning practises are still a problem because to gender inequality, the preference for sons over daughters, low living standards, poverty, Indian traditional thought patterns, and long-standing cultural traditions.

According to a recent UN projection, India's population will surpass China's by 2028 after reaching 1.26 billion people in the current year and continuing at its current rate of development. Although the study makes it apparent that the pace of population growth has decreased recently as a result of the successful implementation of family planning and family assistance programmes, the rate is still expanding considerably more quickly than in China. India's population is expected to increase over the long run because of the country's high national fertility rate.

The Indian family planning programme, however, cannot be disregarded. Let's talk about family planning in India and how, to some extent, it has helped to address the issue of population increase there:

Conclusion

A significant one. The government's efforts to address this issue have led to a rise in support for ideas like family welfare and family planning. In addition to birth control, family welfare emphasises health, child care, disease prevention for children, care for expectant mothers, wholesome food, education, etc. The major objective is to raise population quality. Birth control is emphasised as a scientific way through which a couple may regulate the number of their offspring in family planning. A child's birth is not a matter of fate but rather something that may be controlled by humans. By influencing people's attitudes about family adoption, family planning programmers want to reduce the birth rate.

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Institutional Approach for the Protection of Environment

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Abstract

According to the most environmental economist worldwide countries are completing the process of primitive capital accumulation allow the least investment in environmental protection, therefore, the environment is in danger. By proper application of Green Engineering Technologies by every Institution, a waste may not necessary have to be a waste. It is responsibility of Organisation's Pollution Prevention Personnel to find the right place to turn the waste into a resource. The overall objective of this paper is to upgrade strategies to be adopted by the Institutions to enhance the skill of employees of corporate sector in general in terms of Environmental science specialized in **Industrial ecology** and sustainable development thereby contributing to improving Environmental quality in organization. In this paper I have highlighted challenges and techniques to be applied for the purpose of converting an Institution in to a Green Institution. Green Institution is one which uses processes and materials that are sustainable for an indefinite period.

Key words: Green Engineering Technologies, Pollution Prevention Personnel, Industrial ecology, Green Institution.

Introduction-

Worldwide countries are completing the process of primitive capital accumulation and are shifting from labour intensive industrialization to capital intensive industrialization. In this phase, countries allow the least investment in environment protection. Therefore the environment is in danger of being destroyed. Most of the country's waste is buried, taking up land and harming the environment in several ways.

By paper application of green engineering technologies, a waste may not necessary have to be a waste. A waste can be considered as a resource out of place. It is the responsibility of pollution prevention personnel to find the right place to turn the waste into a resource. All the organizations whether they are governmental or non-governmental, industrial or business organization depend on people i.e., human resources for their operations. means viewing people as vital social capital. It is the human resources equipped with knowledge can perform the magic of converting materials into quality products and services information, new market etc.

This paper aims to address few problems and to provide with knowledge and best practices to deal with the environmental problems. Arising from the economic development and to maintaining a dynamic balance between the demands of the people for equity, prosperity and quality of life and what is ecologically possible.

Institutional Level Best practices to deal with the environmental problems.

Institutions with Specific initiatives in Human Resources development should be included education and training programmes for government officials on topics such as drinking water supply and sanitation technologies, hazardous waste management environmental epidemiology and chemical safety, as well as the development of educational materials and reference texts. Environmental and occupational human resources development should be linked since, the same general knowledge and expertise are required to assess and control the hazards in both environments. The training of personnel and the services they ultimately provide must be co-ordinate in order to ensure that problems are not simply

transferred from the workplace to the general environment and vice versa.

1. Renewable sources of energy would ultimately tackle the problem of CO₂ emission and pollution. Wind power and solar energy are obvious choices. But there are other renewable sources the photo voltaic (which converts sunlight directly in electricity) these sources produce little or no pollution and involve no safety risks.
2. Manufacturing fuel efficient vehicles is another step. Company should announce electric vehicle policy where it should bear 30% of the cost the vehicle as an incentive to its employees.
3. Deforestation Reversal. It is possible to reclaim more land to plant more trees but requires help from social, political and financial institutions. (International Environmental agreement require a strong involvement of affected industries which will helps to reach an international agreement for phase-out).
4. Measurement of emission for vehicles and Market.
5. Installation of pollution control devices should be made mandatory in all such industries which are mainly affecting the humans polluted air & water.
6. The public policy should be very strict and should focus on mass transit systems and cheap tickets. There should be scheme for public cars at different stations which can be booked on internet.
7. Development of car parks at the train terminus is also be used and parking should be made free if they have metro ticket by this we can curb using of private cars at the most.

Another way to discourage cars is reducing private road space and making dedicated lines for trams and buses. Organic waste recovery plant should also be used. France is the good example In Lille metro an organic waste recovery plant which treats 1,00,000 tonnes a year constructed in 2004. the testing phase the plant is nearly over and soon the biogas generated from the waste is expected to fuel 100 buses. Energy from renewable sources in France covers 12% of energy consumption which is comparable with the rest of Europe. In Paris where 80% of the people use public transport. The govt. has developed a fleet of bicycles for public use since last year. With its ofleet of over 20,000

cycles, the self-service scheme is called 'velib' is gaining in popularity in Paris.

Lille Metropole Urban Community which is held up as an example of several initiatives to fight climate change the city has a combination of buses, the worlds first unmanned metro, an elevated tramway and also some of the uniquely designed waste treatment plants.

Most of the Institutions in Europe, for the treatment of the waste, funds are being generated by following a new strategy i.e., household waste collection and treatment tax, based on the value of the property.

Institutional Practices to combat Environmental Problems.

1. Nuclear energy is to be used as a fuel of the future. E.g. frame is a picture of contradiction, with increased dependence on nuclear energy on one hand and resolve to have a low carbon economy on the other about 78% of the total Electricity output in France is from nuclear power source on the other In Paris where 80% of the people use public transport. now U.K. and other countries are considering nuclear energy as an option to fight climate change effects. Use recycled paper. A tonne of recycled paper saves 15 trees, 2500 kilowatt energy and about 20,000 litres of water and reduces about 25 kg of air pollutants

Harness sunlight. Open curtains to used maximum natural light provide task lighting, like reading lamps. Use CLFs in fixtures that are on for more than two and last 10 times longer.

2. Plastic due to the versatility of its usage cannot be learned completely. Instead of doing away with it, an effective recycling model has to be implemented. IIT Delhi students are carrying out research ,on this methodology. It is found that the heated plastic tax mix was stronger than regular tar. This was recommended by a businessman, who is carrying on business in plastics. Ahmed Khan – recycled the non-biodegradable waste generated by this factory and also report is been submitted to the chief Minister S.M. Krishna in the year 2002. and He made a special budgctory provision for the project 40 Kmt. of road were surfaced with the mix Khan was recently given Dhirubhai Ambani Foundation award for his environment friendly initiative.

3. Beautiful infrastructure should be provided and also garden, jogging track should be prepared. The park should house a long vermin-culture pit, whatever the waste is produced in work place should be segregated in to, wet and dry and use it to prepare manure for the garden plants by this, it can reduce cost of buying manure for the maintenance of garden.
4. Institutions, Human Resources development planning should be used as an approach to determine how best to produce, deploy and use human resources in the right skills, attributes and motivation and at the right cost to perform environment functions.

In Paris where 80% of the people use public transport. The govt. has developed a fleet of bicycles for public use since last year. With its fleet of over 20,000 cycles, the self-service scheme is called 'velib' is gaining in popularity in Paris.

Lille Metropole Urban Community which is held up as an example of several initiatives to fight climate change the city has a combination of buses, the world's first unmanned metro, an elevated tramway and also some of the uniquely designed waste treatment plants. Most of the Indian Organizations following strategies to reduce the E-waste to name few, TaTa Industries, Infosys, Wipro, Reliance, Etc, Vedanta Ltd, Hindustan Zinc Ltd, are some of the Organisations has reduced Green House Gas Emissions by 30%.(The Hindu Bureau) said Priya Agarwal Hebbar.

Every enterprise should show its commitment for a low carbon economy.

Conclusion:

In every Organisation, Human beings are not considered now simply wage earning labour but an asset a purposeful resource of the organization. Human resource development is now viewed as the key to economic development by the governments of the world. An enterprise with trained and developed in the best way of environment practices can definitely turn the whole enterprise into green enterprise The France is the best example for this as it shown its commitment for a low carbon economy, though it heavily relies on nuclear energy.

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“An Analysis of the Way Monetary Policy Drives GDP and Inflation”

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Abstract:

This paper aims to analyze the impact on inflation and GDP resulting from monetary policy that influences growth in India. Monetary policy is the procedure through which the governing authorities, government, and central bank of a nation manage the inflation rate, money supply, and interest rates to achieve a set of objectives that promote the strength, stability, and growth of the economy.

Keywords: Monetary Policy, GDP, Inflation, Impact, Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR).

Introduction:

Monetary policy deals with alterations in the money supply. Matters about the monetary policy include the goals of the policy, tools of monetary control, its effectiveness, implementation, the intermediate target of the policy, etc. India's monetary policy since the first plan period has been one of 'controlled expansion' - that is, a policy of providing adequate financing for economic growth while ensuring reasonable price stability. Thus, the Reserve Bank of India (RBI) facilitated economic expansion through the expansion of money. The RBI, the central bank of India, has the primary objective of maintaining monetary stability - moderate and stable inflation in India. The RBI employs monetary policy to maintain price stability and a sufficient flow of credit. The bank rate, repo rate, reverse repo rate, and cash reserve ratio are the rates used by the Indian central bank for this purpose. The RBI increased repo and reverse repo rates 13 times in the previous year. The RBI also liberalized the savings bank deposit rate with immediate effect. This measure was taken to curb rising inflation in Asia's third-largest economy.

Inflation:

A consistent ascent in the normal cost of labor and products over a drawn out timeframe is alluded to as expansion. When

the price level rises, each unit of currency purchases fewer goods and services. Consequently, inflation leads to a decrease in the purchasing power per unit of money. It represents a loss of real value in the medium of exchange and unit of account within the economy. The inflation rate, the annual percentage change in a general price index, typically the consumer price index, over time, is a key measure of price inflation.

Gross Domestic Product:

Gross Domestic Product (GDP) is a comprehensive quantitative measure of a nation's total economic activity. The gross domestic product (GDP) measures the monetary worth of all products and services generated within a nation's borders over a certain time period. In certain nations like India, the National Bank (The Reserve Bank of India) chips away at the sake of the Government and acts as per its headings and wide rules. Monetary policy is in regards to the adjustment of the stockpile of cash and pace of revenue for reinforcing the economy at monetary condition or imminent result level by affecting the level by total interest. Particularly, during downturn financial arrangement utilizes a few money related devices which increment the cash stock and reduction loan costs to stir total interest in the economy. Then again, on occasion of expansion, financial approach looks to

differentiate the total spending by fixing the cash supply or raising the pace of revenue.

Scope of the Study:

The compass of the study is between the period 2009- 2017. The variables of the financial policy include repo rate, open request operations, cash reserve rate, statutory liquidity rate, and rear repo rate.

Review of Literature:

The benefactions made by colorful scholars and experts in the field of Monetary Policy are estimable. Although colorful studies have been reviewed, only those workshops that are nearly related to the present study are included then.

Paulson(1989)(7), studied the impact of financial policy on Indian frugality in the pre-reform period. The study reveals that the single important factor that influences the plutocrat force in frugality is the reserve plutocrat. He says there's a positive correlation between inflationary pressures and administered prices, and what's needed, he suggests, to achieve price stability, is a cordial and symbiotic relationship between financial policy and financial policy the case of price stability as the ideal of financial policy rests on the fact that volatility in prices creates query in decision timber. Rising prices affect savings distrustfully while making academic investments more seductive. The most important donation of the fiscal system to frugality is its capacity to compound savings and allocate coffers more effectively. Governance of rising prices encourages the atmosphere for the creation of savings and allocation of investment. Concluding his composition, Rangarajan(1997)(16) suggests that Monetary growth should be so moderated that while meeting the ideal of growth it doesn't push the affectation rate beyond six percent.

Manohar Rao(1999)(22) discusses the real and financial aspects of short-run structural adaptation using an inflow-of-finances methodology. The binary issues of interest rate and exchange rate determination are getting decreasingly pivotal. Only when its geste is well studied, it'll be possible to prognosticate their goods on crucial macro-profitable variables similar to GDP, affectation, savings, investment, and, overall, profitable growth.

Mallik(2001) studied the relationship between affectation and GDP growth for four South Asian countries i.e. Bangladesh, India, Pakistan, and Sri Lanka. Their results are

long-run a positive relationship between GDP growth rate and affectation for all four countries. They also concluded that moderate affectation is helpful to growth, but briskly profitable growth feeds back into affectation. Therefore, these countries are in veritably tense. Monetary policy plays a pivotal part in ascertaining affectation rates colorful studies showed the empirical substantiation of the relationship between affectation and growth. (Lucas, 1973) held that affectation in any frugality involves query in frugality and increased profitable query negatively affect the affair growth. Affectation as a whole goods the growth of the country, the fiscal sector development, and the unsafe poor member of the population. There's clear agreement that indeed moderate situations of affectation, damage real growth.

Research Gap:

There are numerous studies concerned with the impact of frugality with different variables but there's no specific study yet been conducted. The studies are confined to only a specific period of time.

Objects of the Study:

1. To study the changing part and significance of named financial instruments in India.
2. To assess the impact of changes in CRR, Repo rate, SLR, and Bank rate on affectation.
3. To find how financial policy has an effect on profitable growth.

Hypothesis:

1. **H0:** There's no change in affectation with a change in financial policy.
2. **H1:** The Change in financial policy has an impact on affectation.
3. **H0:** Monetary policy doesn't have an impact on profitable growth.
4. **H2:** The profitable growth is affected by financial policy

Research Methodology:

Methodology means the way the sample and the sample size are named, data collection, and colorful tools are used for studying problems with certain objects(or) objects

Research Design:

It's purely and simply the framework or blueprint of a study that helps to collect and measure the data. The exploration design accepted in the study is explorative in nature that's to discover the implicit openings.

Data Collection styles:

Secondary Data: The data that was neither collected directly by the stoner nor particularly for the stoner, frequently under conditions not known to the stoner. It's affordable and more snappily available than the primary data, but likely to need processing before it's useful. The data for this study consists of data about SLR, CRR, and REPO RATE of once ten times from 2007-2017. For empirical testing, we use values of instruments of financial policy.

Sample System: The system used to dissect the data is the Convenience Sample

system. The convenience slice is where samples are gathered that don't give the samples in the population equal chances of being named. It's a slice fashion in which subjects are named because of their accessible availability and nearness to the experimenter

Software Packages: The study uses SPSS Version23.0, AMOS, and Microsoft Office Excel 2015 for performing data analysis and generating results

Data Interpretation:**Inflation by SLR**

						95% Confidence Interval for Mean				
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum	Between-Component Variance
	20.00	1	3.800					3.8	3.8	
	20.75	1	4.500					4.5	4.5	
	21.50	1	4.900					4.9	4.9	
	22.00	1	5.800					5.8	5.8	
	23.00	2	9.700	0.4243	0.3000	5.888	13.512	9.4	10.0	
	24.00	4	9.675	0.6449	0.3224	8.649	10.701	9.1	10.6	
	Total	10	7.710	2.6232	0.8295	5.834	9.586	3.8	10.6	
Model	Fixed Effects			0.5974	0.1889	7.185	8.235			
	Random Effects				1.3747	4.176	11.244			7.7259

		Levene Statistic	df1	df2	Sig.	
INFLATION	Based on Mean	0.359	1	4	0.581	
	Based on Median	0.037	1	4	0.857	
	Based on Median and with adjusted df	0.037	1	3.000	0.859	
	Based on trimmed mean	0.290	1	4	0.619	

ANOVA					
INFLATION					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	60.502	5	12.100	33.906	0.002
Within Groups	1.428	4	0.357		
Total	61.929	9			

Interpretation:

SLR has no effect on INFLATION at the 5% level of significance since the value is less than 0.05, or 0.050.002.

Inflation and CRR

						95% Confidence Interval for Mean				
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum	Between-Component Variance
	4.00	5	5.680	2.2016	0.9846	2.946	8.414	3.8	9.4	
	4.25	1	10.000					10.0	10.0	
	5.00	1	10.600					10.6	10.6	
	5.50	1	9.100					9.1	9.1	
	6.00	2	9.500	0.0000	0.0000	9.500	9.500	9.5	9.5	
	Total	10	7.710	2.6232	0.8295	5.834	9.586	3.8	10.6	
Model	Fixed Effects			1.9692	0.6227	6.109	9.311			
	Random Effects				1.2883	4.133	11.287			3.9751

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.	
INFLATION	Based on Mean	2.220	1	5	0.196	
	Based on Median	1.054	1	5	0.352	
	Based on Median and with adjusted df	1.054	1	4.000	0.363	
	Based on trimmed mean	2.062	1	5	0.210	

ANOVA					
INFLATION					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	42.541	4	10.635	2.743	0.149
Within Groups	19.388	5	3.878		
Total	61.929	9			

Interpretation:

CRR has an effect on INFLATION at the 5% level of significance since the value is more than 0.05, or $0.149 > 0.05$.

Inflation by REPO

						95% Confidence Interval for Mean				
		N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum	Between-Component Variance
	4.75	1	10.600					10.6	10.6	
	6.25	2	7.000	3.5355	2.5000	-24.766	38.766	4.5	9.5	
	6.50	1	9.100					9.1	9.1	
	6.75	2	4.350	0.7778	0.5500	-2.638	11.338	3.8	4.9	
	7.75	1	9.400					9.4	9.4	
	8.00	2	7.900	2.9698	2.1000	-18.783	34.583	5.8	10.0	
	8.50	1	9.500					9.5	9.5	

Total	10	7.710	2.6232	0.8295	5.834	9.586	3.8	10.6	
Mode 1	Fixed Effects		2.7034	0.8549	4.989	10.431			
	Random Effects			.8549 ^a	5.618 ^a	9.802 ^a			-0.4579

	Levene Statistic	df1	df2	Sig.	
INFLATION	Based on Mean	806859607045268	2	3	0.000
	Based on Median	806859607045268	2	3	0.000
	Based on Median and with adjusted df	806859607045268	2	2.000	0.000
	Based on trimmed mean	896510674494742	2	3	0.000

ANOVA					
INFLATION					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	40.004	6	6.667	0.912	0.580
Within Groups	21.925	3	7.308		
Total	61.929	9			

Interpretation:

Because the value is more than 0.05, or 0.580>0.05, REPO RATE has an effect on INFLATION at the 5% level of significance.

GDP by SLR

GDP					95% Confidence Interval for Mean				
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum	Between-Component Variance
20.00	1	6.700					6.7	6.7	
20.75	1	7.100					7.1	7.1	
21.50	1	8.000					8.0	8.0	
22.00	1	7.500					7.5	7.5	
23.00	2	5.950	0.6364	0.4500	0.232	11.668	5.5	6.4	
24.00	4	7.325	2.7379	1.3689	2.968	11.682	3.9	10.3	
Total	10	7.050	1.7271	0.5461	5.815	8.285	3.9	10.3	
Model	Fixed Effects								
	Random Effects								

		Levene Statistic	df1	df2	Sig.
GDP	Based on Mean	2.675	1	4	0.177
	Based on Median	2.576	1	4	0.184
	Based on Median and with adjusted df	2.576	1	3.000	0.207
	Based on trimmed mean	2.674	1	4	0.177

ANOVA					
GDP					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.953	5	0.791	0.138	0.974

Within Groups	22.893	4	5.723		
Total	26.845	9			

Interpretation:

SLR affects GDP at a 5% level of significance since its value is higher than 0.05.

GDP by CRR

GDP					95% Confidence Interval for Mean				
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum	Between-Component Variance
4.00	5	7.140	0.6348	0.2839	6.352	7.928	6.4	8.0	
4.25	1	5.500					5.5	5.5	
5.00	1	8.500					8.5	8.5	
5.50	1	3.900					3.9	3.9	
6.00	2	8.450	2.6163	1.8500	-15.056	31.956	6.6	10.3	
Total	10	7.050	1.7271	0.5461	5.815	8.285	3.9	10.3	
Model	Fixed Effects								
	Random Effects								

		Levene Statistic	df1	df2	Sig.
GDP	Based on Mean	31.453	1	5	0.002
	Based on Median	28.646	1	5	0.003
	Based on Median and with adjusted df	28.646	1	4.000	0.006
	Based on trimmed mean	31.019	1	5	0.003

ANOVA					
GDP					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	18.388	4	4.597	2.718	0.151
Within Groups	8.457	5	1.691		
Total	26.845	9			

Interpretation:

CRR has an effect on GDP at the 5% threshold of significance since its value, 0.151, is bigger than 0.05.

GDP by REPO

GDP					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
4.75	1	8.500					8.5	8.5
6.25	2	8.700	2.2627	1.6000	-11.630	29.030	7.1	10.3
6.50	1	3.900					3.9	3.9
6.75	2	7.350	0.9192	0.6500	-0.909	15.609	6.7	8.0
7.75	1	6.400					6.4	6.4

8.00	2	6.500	1.4142	1.0000	-6.206	19.206	5.5	7.5
8.50	1	6.600					6.6	6.6
Total	10	7.050	1.7271	0.5461	5.815	8.285	3.9	10.3

		Levene Statistic	df1	df2	Sig.
GDP	Based on Mean	70227843252 64	2	3	0.000
	Based on Median	70227843252 644	2	3	0.000
	Based on Median and with adjusted df	70227843252 644	2	1.471	0.000
	Based on trimmed mean	39015468473 691	2	3	0.000

ANOVA					
GDP					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	18.880	6	3.147	1.185	0.482
Within Groups	7.965	3	2.655		
Total	26.845	9			

Interpretation:

At a 5% level of significance, REPO RATE has an effect on GDP since its value, 0.482, is more than 0.05.

Findings:

1. It's set up that the RBI changed the repo and rear repo rates constantly compared to CRR and SLR Since 2013 there's no change in CRR
2. The Repo rate varies between 6.25 to 8 during the study period.
3. After assaying the data, it's set up that there's a significant effect on affectation. The changes in financial policy instruments like CRR, SLR, and Repo Rates lead to changes in the affectation Rate of frugality.
4. Affectation in frugality is drastically controlled due to the changes in the below rates during the study period.
5. After assaying the data, it's set up so that there's no impact because the data is confined to a limited period.
6. Monetary policy is only one of the factors that determine the position of nominal public income in the short- run. Variations in plutocrat force may lead to contrary changes in haste and thereby limit the effectiveness of the financial policy.

Suggestions:

1. All these measures of RBI control the profitable conditions in the frugality; occasionally they show an adverse effect on the profitable growth. It's the straight system because
2. It's suggested that RBI should take a look at the profitable conditions from time to time
3. More relationship between these rates i.e. Statutory Liquidity rate, Cash Reserve Ration, and Repo Rate.
4. The cash reserve rate(CRR) remains an important instrument of financial policy in India as well as in the utmost of the developing husbandry.
5. CRR is one of the most constantly used financial munitions in India, while SLR is also
6. Active currently.

Conclusion:

This study has been stimulated by the recent developments in the literature on the relationship between affectation and growth and the apparent contrary substantiation handed to the developed and developing husbandry. The seductive results set up in this study are that affectation and profitable growth are negatively affiliated. Second, the responsiveness of affectation to changes in growth rates is larger than that of growth to changes in affectation rates. These findings have important policy counteraccusations.

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“A Perspective towards the Machine Learning in the Indian Education System”

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Abstract:

Over the last two times, Education has gone through numerous changes in all situations. Innumerable changes are being because of the rising mechanical advances in the manner preceptors are instructed and the manner in which their understudies learn. One of the achievements in the development of the invention is the rise of man-made logic and Machine literacy moment. Machine learning (ML) is one of the most encouraging operation regions in the field of data invention, with a virtually measureless operation compass. The application of Machine Learning in the field of Education is as of now of extraordinary interest to specialists and experimenters, which is the primary focal point of our disquisition. The abecedarian reason for this paper is the way Machine Learning has changed the academic system varied with history. Machine Learning has changed the Education area by further developing effectiveness, learning examination, visionary disquisition, protean literacy, individual literacy, and executing colorful ways for assessment. This check cont Machine Learning is general ideas of Machine Learning in Education.

Keywords: Education, Machine Learning, Data Innovation, Learning.

Introduction:

Moment, the invention is worldwide, flashing back to the Machine Learning area, and has shown to be vital in negotiating understudy literacy results. Education is creating some distance from the conventional line of understudies taking a gander at an analogous reading material while the preceptor addresses from the front of the room. The present homerooms aren't just advancing to use further invention and motorized means; they're also putting coffers into Machine Learning. Machine literacy has turned into another outskirt in Education. Besides the fact that it rethinks how machine literacy is conveyed, it also can conceivably advance quality literacy for understudies. Machine literacy is concentrated on giving customized homeroom guidance by giving a constant review in view of individual understudy conduct and different rudiments. This builds the openings to further developed literacy. Machine literacy also assumes a significant part in assessment and assessment by barring predilection. With the

backing of Machine Learning, it's doable to foster wise fabrics that permit you to pursue your own choices in view of situations. Information is vital in machine learning since it goes about as an essential reference. With the backing of machine literacy computations, it's doable to use lately put-away information to make vital information.

Objectives:

1. To study the fundamentals of machine learning.
2. To understand the perspective of machine learning in the Indian education system.

Research Methodology:

The method employed for the study is a hypothetical inquiry paper on the pinnacle of machine learning. It is also a research paper based on auxiliary data.

Machine Literacy:

Machine Learning is a center sub-area of man-made machine learning power that gives machines entrance to information to make mortal work more machine learning forward and makes reality simpler just to allow them to come familiar with the

information for themselves. Literacy is a significant element of man-made machine learning power. This is a machine highlight that catches information and reviews precipitously and further develops prosecution over the long run, creating tone-machine learning computations to acquire knowledge from that information to make prospects. Machine learning calculations use computational strategies to concentrate on data machine learning forwardly from information, without depending on a foreword machine learning condition as a model. Machine learning is one of the machines learning mechanical ways to deal with man-made intelligence and supports multitudinous new advances in computer-grounded intelligence and business operations. Present-day machine learning is

factual commerce that characterizes the result and unborn application of information. Machine learning designs are right now the veritable zenith of interest in the business as they look to advance the means and affect accessible to each cycle in view of the accessible empirical information. Machine learning enjoys huge benefits in information cast and examination joined with information wisdom invention. The machine learning design characterizes the different situations associated with the machine learning cycle and cone machine learning the essential moves toward taking while changing crude information into preparing datasets that empower dynamics in the frame. The Machine learning designs shown in **fig 1**.

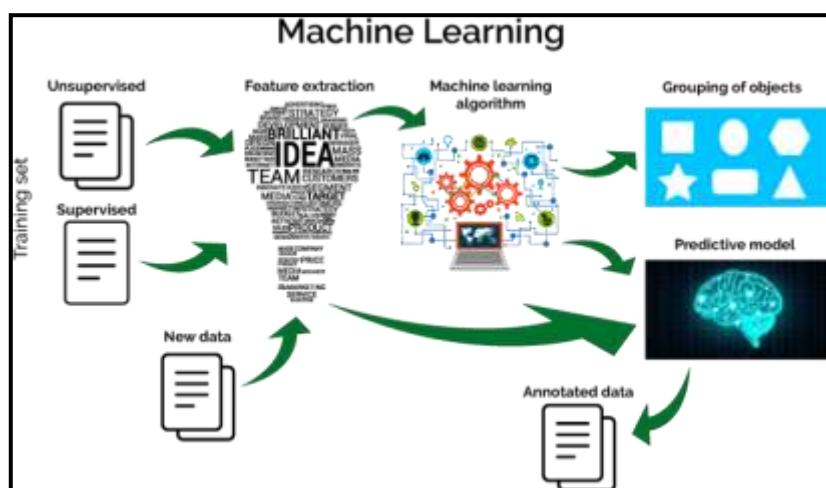
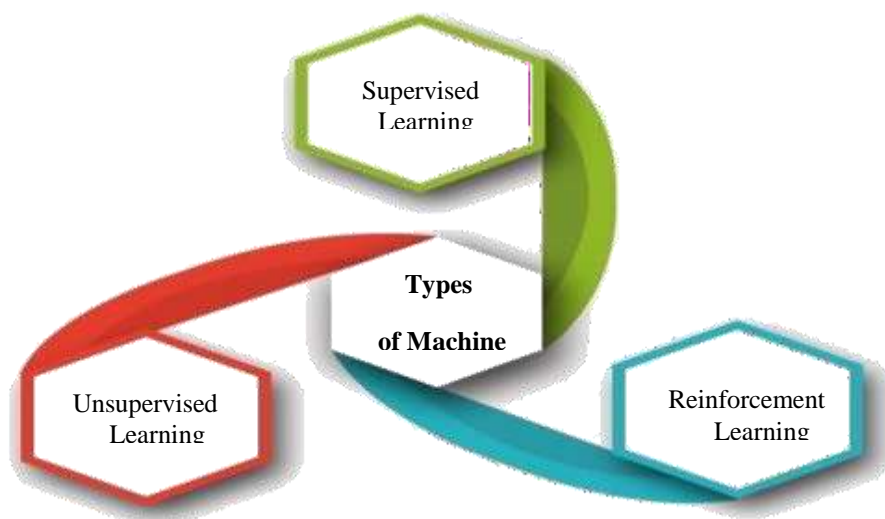


Figure 2: depicts three different forms of machine learning: reinforcement learning, unsupervised learning, and supervised learning.

Figure 2: Types of Machine Learning



Supervised Learning: Supervised Literacy is a type of machine literacy that trains a machine with suitably "labeled" training data and also predicts the affair of the machine grounded on that data. Pronounced data means that some input data is formerly marked with the correct affair. During supervised literacy, the literacy data handed to the machine acts as an administrator who teaches the machine to rightly prognosticate

results. It applies the same generalities that scholars learn under the supervision of a schoolteacher. Supervised literacy is the process of furnishing input and correct affair data to a machine literacy model shown in Fig 3. The purpose of the supervised literacy algorithm is to find a mapping function that maps the input variable(x) to the affair variable(y).

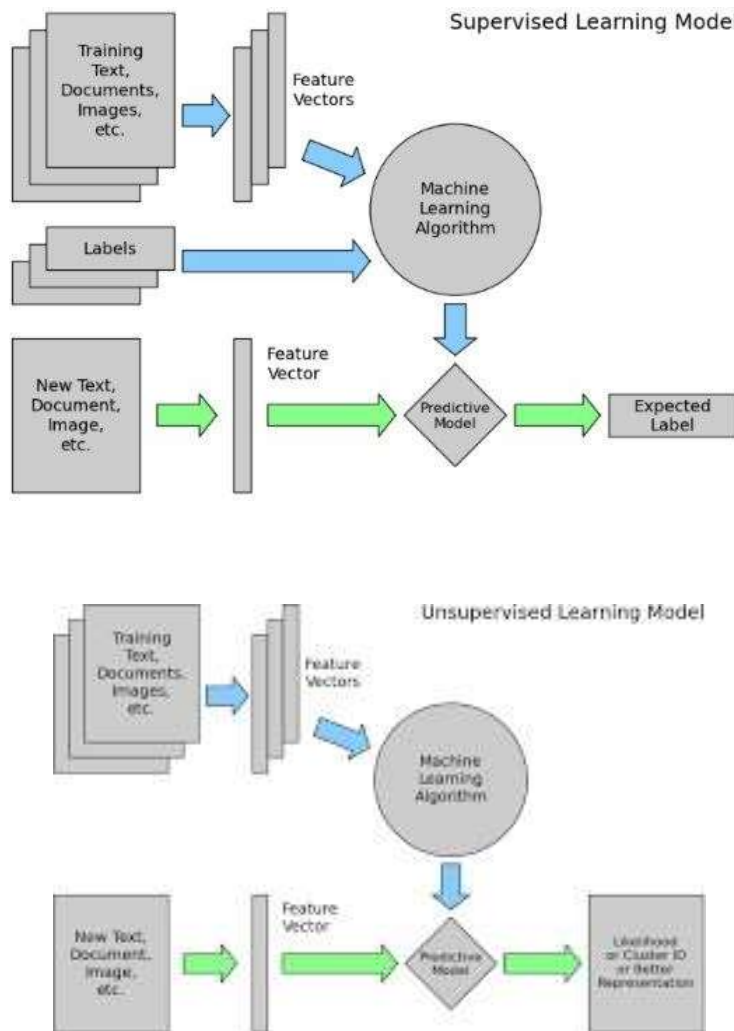


Figure 4: Unsupervised Learning Model

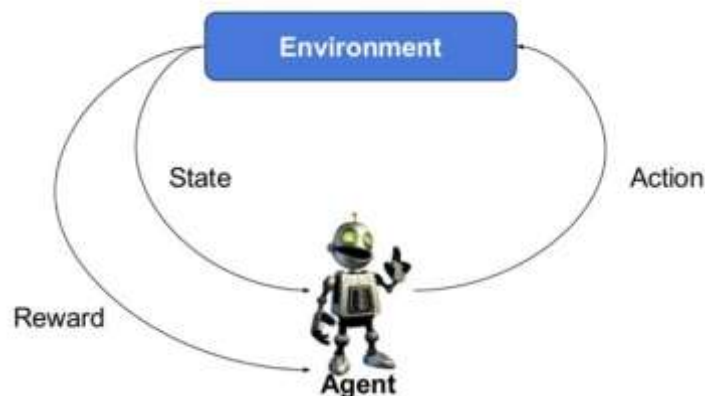
Unsupervised/ prophetic literacy: Unsupervised literacy is a machine learning fashion that doesn't cover the model using training datasets. Rather, the model itself finds retired patterns and perceptivity from the specified data. It can be compared to the literacy that takes place in the mortal brain while learning new effects. This can be characterized as unaided education is a kind of machine proficiency wherein a model is

prepared on an unlabeled dataset and can follow up on that information without oversight displayed in Fig 4. The purpose of unsupervised literacy is to find the introductory structure of the data set, group the data according to similarity and present the data set in a epitomized format.

Underpinning Learning: underpinning literacy is a feedback-grounded machine literacy system in which agents learn to bear

in the terrain by performing conduct and seeing the results of the conduct. For every good deed, the agent receives a positive

response, and for every bad deed, the agent receives a negative response or forfeiture.



Literature Review:

Tom M. Mitchell in their book "Machine literacy" In the field of machine literacy, described the study of algorithms that allow computer programs to ameliorate automatically through experience and to automatically assume general laws from particular data. **Ibtehal Talal Nafea** in their exploration paper "Machine literacy in education technology" explains the introductory perspectives of machine literacy in education and concludes that unborn literacy surroundings are likely to be largely substantiated so that learners can realize their full eventuality in the most satisfying ways.

Ilkka Tuomi in their report depicts "The Effect of Man-made Consciousness on Picking up, Instructing, and Training Projects for What's to Come". He has defined the advantages and limitations of machine literacy in education. **Havan Agrawal and Harshil Mavani** designed a model that used a machine learning algorithm called a neural network to prognosticate the performance of scholars in an academic institution. This review also describes the operation of machine literacy in education.

Operation of Machine Learning in Education:

Machine Learning can altogether affect the fate of our education. It's an effective tutoring tool because of its capability to acclimatize and offer customized classes. Machine literacy-enabled tools help assess an existent's current position of understanding, identify gaps in the literacy of the pupil, and give real-time results. The technology can also identify areas where

preceptors are outnumbered by scholars and produce optimized literacy programs that impact the largest number of scholars.

Adaptive Literacy:

Machine literacy allows us to dissect the performance of each pupil in real-time, and also change the tutoring styles and class grounded on the anatomized data. The software helps to suggest ways of learning that a pupil should go through. Scholars admit suggestions on accouterments and other tutoring methodologies in software.

Perfecting the Effectiveness:

Machine literacy makes it much easier for seminaries and sodalities to organize and manage their content and class. It also helps to understand the eventuality of everyone in the system and also distributes the work consequently. It fluently determines which work is stylish for individual preceptors and which is stylish for scholars. Because machine literacy greatly facilitates learning for both preceptors and scholars, it improves engagement and interest in literacy and participation. Dispensable to say, this helps to increase the effectiveness of the education system.

Learning Analytics

Tutoring accouterments can frequently confuse preceptors. When they get stuck in tutoring, scholars cannot duly master the ideas and substance of the assignment. ML- grounded literacy analytics can help preceptors gain sapience into data and enable them to understand data. As preceptors review numerous accouterments, dissect, interpret, make connections, and draw conclusions, it improves the overall tutoring and literacy process. Learning

analytics also tells you which path of learning an individual pupil should take. In fact, it also offers numerous benefits to scholars by furnishing suggestions on accouterments and other tutoring methodologies for software.

Prophetic Analytics:

Prophetic analytics in education is about knowing the studies and requirements of scholars. This helps to draw conclusions about what may be in the future. With class tests and results in six months, it was possible to understand which scholars will do well on the test, and who'll have a hard time. This helps preceptors and parents to be alert and take action. Thanks to this, the pupil can be better helped and work on his weak subjects.

Individualized literacy:

Machine literacy has also made a compass for substantiated literacy, where scholars have the freedom to choose the subjects they're interested in, the schoolteacher they want to study with, and the class, norms, and models they want to follow. In simple words, scholars can now witness a literacy terrain that meets their requirements and preferences.

Assessment Evaluation:

Machine literacy also changes the way we estimate. It has the capability to assess tasks and examinations more directly than a person. As may be obvious, checking OMR reaction structures has been an intense cycle. Furthermore, there were likewise opportunities to commit an error while evaluating the studio. With ML the gauge might be more exact.

The Advantages and Constraints of Machine Learning in Training:

Seeing individualized instruction as the most prominent benefit of machine literacy is sensitive not. Researchers can deal with material that meets their extraordinary capacities and continue on toward more perplexing substance when they're prepared. This one-of-a-kind way to deal with learning benefits researchers, as well as preceptors, can save a ton of time. They never again need to deliver task designs that serve researchers of all limits and circumstances of the class. The benefit of machine proficiency has likewise appeared in the arrangement of programmed appraisal. This considers a completely fair-minded evaluation, which can not be told by the teacher's relationship with any student. This recovers preceptors' time

and gives a more reasonable outline of the kid's accomplishments in the foundation.

Machine education can likewise assist preceptors with planning ahead. By testing their information in the framework, examples will snappily crop that show where the student's principal shortcoming is and whether they need repetitive assistance. Be that as it may, PCs can give a type of virtual education. In the event that the issue is scholastic. In any case, it might likewise demonstrate whether an understudy takes a chance with leaving the foundation or entering further restorative activity. The primary weakness of machine proficiency is that social cleaves still should be underscored to be sure while utilizing machine education.

Regardless of how helpful it's to permit a PC to gauge understudy work, it'll not be compelling all of the time. Preceptors will in any case need to design the evaluation of papers and different subjects in a dated manner. Obviously, various theological schools value the advantages of machine proficiency on account of its fundamental expense. Purchasing every one of the new outfits and programming to create validated learning a powerful outcome for preceptors and researchers can be moderately valuable. This can be one of the significant limits of machine education.

Conclusion:

The entire world is on the way to digitalization, and for this reason, the sweeping statements of machine education have a significant impact. Our investigation is grounded completely on how new machine advances are emerging and built into the school system. Ultramodern machines are prepared to give information-grounded training and are answerable for their idealizing insight. Later on, we don't assume and envision the advancement of instructive innovation because of Machine education. It'll likewise give various new openings to help activity and lessen inconvenience and education holes among understudies and preceptors. Soon, machine proficiency will come more compelling and give to be sure improved results. All theological colleges and sodalities will require an opportunity to become acclimated to the elements of machine education. It's unfortunate that the full execution of comparative advancements in training requires a ton of work.

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Radiation: Fundamental of Atomic and Nuclear Physics

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Abstract:

The principal contrast between atomic physical science and nuclear physical science is that atomic physical science manages the core while nuclear physical science manages the whole particle. All the more explicitly, nuclear material science manages the iota/atom as a framework comprising of a core and electrons. Atomic material science manages the core as a framework comprising of nucleons (protons and neutrons). Atomic material science is worried about particles overall and how the electronic setup of electrons can change. At the point when a molecule loses electrons, it turns out to be decidedly charged (cations) and when it acquires electrons it turns out to be adversely charged (anions).

Keywords: Protons and Neutrons, Nuclear, Radiation

Introduction:

The fundamental contrast between atomic material science and nuclear is that atomic physical science manages the core though nuclear physical science manages the whole molecule. All the more explicitly, nuclear material science manages the iota/atom as a framework comprising of a core and electrons. Atomic material science manages the core as a framework comprising of nucleons (protons and neutrons). Atomic material science is worried about particles overall and how the electronic setup of electrons can change. At the point when a molecule loses electrons, it turns out to be decidedly charged (cations) and when it acquires electrons it turns out to be adversely charged (anions). Nuclear construction, rudimentary atomic physical science, the idea of electromagnetic radiation, and the creation of X-rays are basic to grasping the physical science of clinical imaging and radiation security. This, paper sums up those parts of these fields that are important for the underpinnings of current physical science.

Radioactivity is an nuclear cycle that outcomes from the rot of a core. Radioactivity depends on the law of conservation of charge. Outer boundaries, for example, temperature and pressure don't influence the pace of rot. Daughter cores will have one of a kind physical and substance properties (which

vary from parent cores). The rot pace of any radioactive substance is straightforwardly corresponding to the quantity of iota/atoms present at that point. α , β , what's more, γ rays are followed during radioactivity.

Classification of Radiation:

Radiation can be named electromagnetic or particles, with containing seeming light, ultraviolet and bright, X-iota/atoms and gamma iota/atoms, and electromagnetic radioactivity, containing molecule radiation containing electrons, positrons, protons, and neutrons.

1. Electromagnetic

Radiation:

Electromagnetic waves, similar to all waves, can be portiota/atomed by their plentifulness, wavelength (λ) frequency, recurrence (ν), and speed. Plentifulness is the power of the wave. Frequency is the distance between comparative focuses on adjoining circles. Frequency is the quantity of complete wave motions per unit time. The speed of a wave is corresponding to the result of recurrence and frequency, and its size relies upon the idea of the material through which the wave voyages and the Frequency of the radiation. In a vacuum, nonetheless, the speed of all electromagnetic waves is a steady, ordinarily signified by c , and hence:

$$c = \lambda \nu$$

Equation 1.1

For X-iota/atoms, the frequency is typically communicated in nanometres (nm) ($1 \text{ nm} = 10^{-9} \text{ m}$) and the Frequency is communicated in hertz (Hz) ($1 \text{ Hz} = 1 \text{ cycle/s} = 1 \text{ s}^{-1}$). While considering connections with issue, electromagnetic radiation is typically considered a progression of individual particles, called photons. The energy of every photon is given by:

$$E = h\nu$$

Equation 1.2

where h is a constant known as Planck's constant. In symptomatic radiology, photon energy is typically communicated in units of keV, where 1 electronvolt (eV) is the energy achieved by an electron when it is advanced through a possible distinction of 1V.

2. **Particulate Radiation:** In demonstrative radiology, the main molecule that should be considered is electron radiation. It has a rest mass of $9.1 \times 10^{-31} \text{ kg}$ and a rest energy of 511 keV.
3. **Ionizing and non-ionizing radiations:** Radiation is delegated ionizing or non-ionizing relying upon its capacity to ionize matter:
 1. Non-ionizing radiation cannot ionize matter.
 2. Ionizing radiation can straightforwardly or by implication ionize matter
4. **Direct ionizing radiation:** Direct ionizing radiation: Quick charged particles that store their energy straightforwardly into issue through numerous little coulomb (electrostatic) associations with orbital electrons along the molecule track..
5. **Ionizing Radiation Indirect:** X or gamma iota/atoms photons or neutrons that first exchange their energy to quickly charged particles delivered in at least one connections with regards to this issue they go through. The subsequent sped up charged particles then store their energy straightforwardly into issue.

The base energy expected to ionize an iota/atom, for example eliminate an electron, is known as the ionization potential. For the components, it goes from a couple of electron volts for the salt metals to 24.6 eV for helium. For water, it is 12.7 eV . Electromagnetic radiation of frequencies over the close UV region of the electromagnetic range is ionizing, while electromagnetic radiation

with energies underneath the far-UV area (e.g, noticeable light, infrared, and radiofrequency) is non-ionizing.

Nuclear and Atomic Structure:

An iota/atom is made out of a focal core encompassed by a haze of adversely charged electrons. The vast majority of the mass of an iota/atom is gathered in the core, which contains Z protons and (A less Z) neutrons, where Z is the nuclear number and A_n is the nuclear mass number of the core. Protons and neutrons have practically a similar rest mass; A proton has a similar positive charge as an electron has a negative charge, and a neutron has no charge. In a molecule without any particles, the quantity of electrons and protons are something similar. The range of the particle is around 0.1 nm , while the span of the core is a lot more modest, around 10^{-5} nm . Protons and neutrons are regularly alluded to as nucleons; They have major areas of strength for comparable collaborations and are bound to the core by serious areas of strength for a. Rather than electrostatic and gravitational powers that are conversely relative to the square of the distance between two particles, the solid power between two nucleons is an exceptionally short-range force, dynamic just at distances of a couple of femtometres. At these little distances, the prevailing power is the predominant power, surpassing different powers by a few significant degrees. A few essential definitions and portiota/atomals follow.

1. **Atomic Number Z:** The number of electrons and the number of protons in an atom.
2. **Atomic mass number A:** The number of protons in an atom Z plus the number of neutrons N ($A = Z + N$).
3. A and Z do not have a fundamental relationship, but an empirical one

$$Z = \frac{A}{[1.99 + 0.0156A^2]^{1/4}}$$

Equation 1.3

4. Provides a good estimate for steady bases.
5. A component can be made out of molecules that all have similar number of protons, however various quantities of neutrons, for example different nuclear mass numbers A . Particles with a similar nuclear number Z yet unique nuclear mass numbers A are called isotopes of a given component.

6. **Nuclear weight A_t :** A dimensionless actual amount, the proportion of the typical mass of the particles of a component to the consolidated nuclear mass unit. The normal is a weighted normal thinking about the overall wealth of all isotopes of a specific component.
7. **Nuclear mass M :** communicated in brought together nuclear mass units. The nuclear mass M for a specific isotope is more modest than the amount of the singular masses of the constituent particles due to the inward energy related with restricting particles (nucleons) in the core.
8. **Atomic g-atom (gram-atom):** The quantity of grams comparing to N_A iotas of the component, where N_A is Avogadro's steady (6.022×10^{23} molecules/g-particle). The above meaning of nuclear weight implies that A_t g of every component contains precisely N_A iotas. It is as per the following:
9. Atoms number N_{am} mass per unit of an element:

$$N_{am} = \frac{N_A}{A_t}$$

Equation 1.4

Electrons Number, ZN_{am} mass per unit of an element:

$$ZN_{am} = \frac{Z}{A_t} N_A$$

Equation 1.5

Electrons Number, ZN_{av} volume per unit of an element:

$$ZN_{av} = pZN_{am} = pZ \frac{N_A}{A_t}$$

Equation 1.6

Where, p is the element density

Atomic Structure:

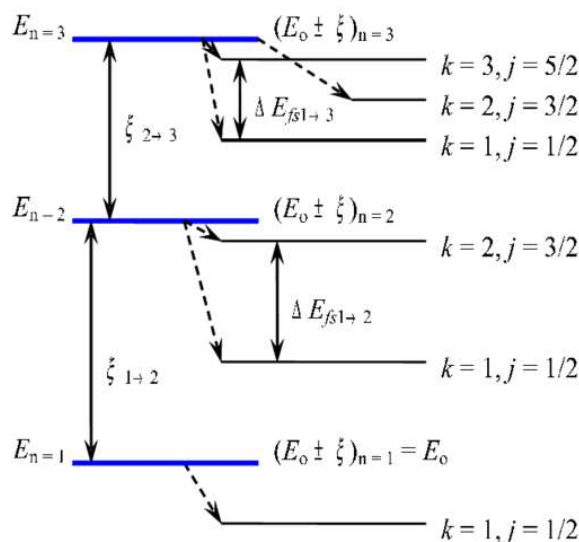
The advanced quantum mechanical model of the molecule depends on crafted by numerous physicists. A thick focal center encompassed by circling electrons was first proposed by Rutherford in 1911. Be that as it may, his model in view of traditional physical science had a few unacceptable highlights. For instance, it can't make sense of the noticed discharge spectra of components. Bohr expounded Rutherford's nuclear model in 1913, in light of old style, non-relativistic mechanics, by adding the idea of momentum

force quantization. His model depends on four standards:

1. Electrons move in distinct, permitted circles around the Rutherford core, the focal alluring Coulomb force between the electrons and the decidedly charged core is adjusted by the centripetal power emerging from the orbital movement.
2. While in circle, the electron loses no energy despite the fact that it is continually sped up, this articulation goes against old style physical science, which predicts that a sped up charged molecule will lose energy as radiation.
3. The momentum of an electron in a permitted circle is quantized and takes just the upsides of $n\hbar$, where n is a number and $\hbar = h/(2\pi)$, where h is Planck's constant.
4. An atom or ion emits radiation when an electron transitions from an initial orbit with quantum number n_i to a final orbit with quantum number n_f for $n_i > n_f$.
5. An iota or particle transmits radiation when an electron changes from an underlying circle with quantum number n_i to a last circle with quantum number n_f for $n_i > n_f$.

As per the Pauli rejection guideline, no two electrons can possess a similar state, and it follows that the quantity of electron expresses that can have a similar head quantum number, n is equivalent to $2n^2$. The energy levels related with these four quantum numbers can be perceived utilizing the energy level graphs displayed in Fig. 1.1 for hydrogen and tungsten. In these charts, each worth of the central quantum number above $n = 1$ leads to a band (or shell) of a condition of equivalent energy (meant as a solitary energy for effortlessness). The energy levels related with the different electron orbitals (not attracted to scale) increment with Z and reduction with quantum number n and normal separation from the core. The external electronic shell (valence shell) decides the substance properties of a component. The energy groups relating to $n = 1, 2, 3$, and so forth. are known as K, L, M , and so on., bands. The construction of each band emerges from the little distinctions in energy related with both the l and s quantum numbers.

Figure 1.1 Energy levels for hydrogen and tungsten. Potential advances between various energy levels are demonstrated with arrows



X Iota/atoms:

Construction of typical X-iota/atoms and Auger electrons:

At the point when charged particles go through issue, they connect with nuclear electrons and lose energy through excitation and ionization processes. Ionization can likewise be delivered when photons go through issue through communications like the photoelectric impact and ambiguous dissipating. Excitation happens when the electrons in the retaining material exchange the energy of a few occurrence particles, dislodging them from the core (i.e, to a higher energy level) into the shell, and leaving an opening in the first shell. In the event that the energy moved is more prominent than the limiting energy of the electron, ionization happens, bringing about the electron being shot out from the particle. A particle pair is framed comprising of a shot-out electron and an ionized, decidedly charged molecule. The littlest restricting energies for electrons in carbon, nitrogen, and oxygen are 11.4, 14.6, and 13.7 eV, separately, while the typical energy expected to shape a particle pair in dry air (generally nitrogen and oxygen) is 33.98 eV. The distinction in energy is the aftereffect of the excitation cycle.

At the point when an opportunity is made in an internal electron shell, whether by excitation or ionization, it is filled by electrons from a more far off (external) shell. This makes an opportunity in this second external shell, which is then filled (if accessible) by an electron from a further external shell. The energy delivered in each

progress is moved by the outflow of electromagnetic radiation or by an electron launched out from one more external shell known as a Drill electron. Contingent upon the material's nuclear number and electron shells, electromagnetic radiation can be in the apparent, bright, or X-ray portions of the range. The energy of this radiation is normal for a specific molecule, as it is equivalent to the contrast between the electron restricting energies of the underlying and last states for a specific change, which relies upon the nuclear number. The X-rays subsequently discharged are called trademark or fluorescent X-rays. A naming show is utilized by the shell in which the clear happened. X-rays transmitted with electron change to K shell are known as K trademark X-rays and X-rays because of electron progress to L shell are known as L-trademark X-rays, etc. An addendum is utilized to show a shell from which a clear space is filled. The addendum an is utilized to indicate transmitted radiation for changes between adjoining shells and the addendum b to mean produced radiation for changes between non-neighboring shells.

As referenced over, the energy conveyed is the distinction between the limiting energies of the underlying and last states. For instance, for tungsten, the energies of $K\alpha$ and $K\beta$ X-particle/molecules are given by:

$$E(K_{a1}) = E_{LIII} - E_K = -11.3 - (-71.5) = 60.2$$

Equation 1.7

$$E(K_{a2}) = E_{LII} - E_K = -14.5 - (-71.5) = 57.0$$

Equation 1.8

$$E(K_{\beta 1}) = E_{MIII} - E_K = -4.4 - (-70.5) = 64.1$$

Equation 1.9

$$E(K_{\alpha 2}) = E_{NIII} - E_K = -0.9 - (-70.5) = 69.9$$

Equation 1.10

At the point when the Drill electron takes out the energy distinction between the underlying and last states, more opening is made in the external shell. For instance, in the event that the underlying change is from a M to a K shell and a Drill electron is likewise radiated from the M shell, there will be two coming about opening in the M shell. The dynamic energy of the Drill electron not entirely settled by the limiting energy of the shell with the underlying opportunity and the amount of the limiting energies related with the two-opening made. For instance, for the change only depicted for a tungsten focus on, the energy of the Drill electron is given by:

$$\begin{aligned} E(Auger) &= E_K - E_M - E_M \\ &= -[(-70.5) - (-3.4) - (-3.4)] \\ &= 63.7 \text{ keV} \end{aligned}$$

Equation 1.11

While considering energy stockpiling in a material after an opening is made and afterward filled, it is essential to know whether fluorescent X-particle/molecules or Drill electrons are transmitted. The likelihood of outflow of fluorescent X-particle/molecules is known as the fluorescent yield, ω . Since either a fluorescent X particle/atoms or a Drill electron should be produced, the likelihood that a Drill electron is discharged is $1 - \omega$. Drill electron outflow is more significant for low nuclear number materials and for advances in external shells.

Conclusion:

Most cooperation's are with nuclear electrons as quick electrons travel through issue. In any case, they can likewise shape adaptable cooperations with nuclear cores. In such connections, the electron way will be diverted and energy will be moved to a photon, which is radiated. Since the photons are discharged by the electron's sluggish movement, it is called bremsstrahlung, and that signifies 'break radiation' in German. The energy of the radiated photon can take any worth from zero to the energy of the underlying electron, bringing about the emanation of a range of photons covering this energy range alongside the discharge of a beam of electrons. Bremsstrahlung photons are a significant part of the X-particle/molecule range radiated by X-particle/iota tubes.

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Impact of Information and Communication Technology (ICT) On Achievement of Students in Chemistry

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Abstract:

To change oneself in current logical world, and to comprehend a climate where modern innovation and science assume a perpetually significant part, man needs a strong establishing in science. The underlying logical information he has given throughout ordinary tutoring is as of now adequately not. According to the perspective both of information and of strategies, the instruction should go on all through his functioning life. Schooling is a deep rooted process. The developing requirement for logical information and preparing, because of the assessment of the cutting edge world and the fast spread of training, has been dissected and is presently generally perceived. In face of that need, it would appear to be sensible to give accentuation on the most current instructive advances, and specifically, to make a far and wide mass utilization of TV methods, web, mixed media and so on. This study explored the effect of data and correspondence innovation (ICT) on Accomplishment of Understudies in Science at Auxiliary Level. For the reason, a rundown of optional school of CBSE and KSEE Board are ready and four organizations were chosen with the assistance of lottery technique. They chose tests of four schools were haphazardly isolated into two gatherings exploratory gatherings and controlled gatherings. The necessary information was gathered at two phases as pre-test and post test scores from the accomplishment test in science. Information was dissected quantitatively utilizing measurable methods of mean, S.D. what's more, t-test.

Keywords: Information and Communication Technology, Students' Achievement, Chemistry at Secondary level, Country Specific Development.

1. Introduction

Since antiquated times individuals have concocted different strategies for conveying their considerations, needs and wants to other people in early edified times, individuals will quite often praise in geologically limited bunch in which correspondence were sufficiently accomplished through discourse and composed messages. As progress spread over bigger geological regions, an assortment of significant distance specialized techniques were attempted, for example, smoke signals, transporter pigeons and so on perhaps of the earliest known optical connection, was the utilization of fire signal by Greeks in the eight century B.C. for sending cautions, calls for help, or declaration of specific events. However, due to ecological and innovation constraint, it for the most part ended up

being quicker and more effective to send letter messages by messenger over the street organization. The disclosure of transmit by Samuel, F.B. Morse 1938 attendants in another improvement in correspondence that is, the period of electrical telecommunication framework were first encoded into strings of double images and were then physically sent and gotten. The turn of events and execution of correspondence frameworks utilizing electric signs turned out to be progressively refined driving thus to the introduction of phone, radar and microwave links. Today, these correspondence frameworks have turned into a necessary piece of regular daily existence with circuits crossing the whole world conveying voice, message, pictures and numerous different kinds of data. As ongoing advances coordinated circuits to innovation have permitted PCs to become recognized,

less costly and broadly accessible, which make individuals to be keener on interfacing them to web. Web is a PC framework that permits a large number of PC clients all over the planet to trade data with the utilization of the web, which made correspondence more straightforward and quicker; many bodies have spring up to help the utilization of this innovation, for example, the board data administrations (MIS), Information innovation (IT) and numerous others.

Data innovation (IT) is worried about the utilization of innovation in enormous organizations. In specific, IT manages the utilization of electronic PCs and PC programming to change over, store, safeguard process, send and recovered data. Hence, PC experts are much of the time called IT trained professionals or Business process specialists and the division of an organization or college that arrangements with programming innovation is in many cases called the IT office. In Joined Realm schooling system, data innovation was officially coordinated into the school educational plan when the normal educational plan was concocted. It was immediately understood that the work shrouded was valuable in all subjects. With the appearance of the web and the expansive band associations with all schools, the utilization of IT information, abilities and understanding in all subjects turned into a reality. This adjustment of accentuation has brought about a difference in name from data innovation to data and correspondence innovation (ICT). Information and correspondence innovation in schooling can be perceived as the use of computerized gear to all parts of educating and learning. It is available in practically all schools ahead of time nations and is of developing influence. The Public Matrix for learning, UK government drives demonstrated that educators should move quickly to more bury nets and electronic work in schools. As per Benton (1983), the entire world is encountering the progression of science and innovation. Every country is either a strong maker of innovation or a purchaser of other country's innovation endeavors.

As a matter of fact innovation has made the entire world a worldwide town and ICT advancement has made another milestone in globalizing training. The utilization of ICT is quick acquiring unmistakable quality and becoming quite

possibly of the main component characterizing the essential capabilities of the understudies.

As per World Bank, ICT comprises of the hardware, software, organizations, and media for the assortment, storage, processing, transmission and show of information; The utilization of ICT falls into four significant categories: constructing information and critical thinking (through the web mail, CD ROMs, data sets, videoconferencing); using process abilities; supporting clarification of ideas; and conveying thoughts (power point, work area distributing) (WCEA, 2002).

The utilization ICT in instructing is an important and useful approach to giving training to students that will help with guzzling in them the necessary limit with respect to the universe of work. It generally has an impact on the manner in which we live, learn and work. Technology has entered the study hall amazingly to turn out to be essential for the educating and educational experience.

2. Need and Significance of the Study

The issue of low scholarly accomplishment among the understudies has been tormenting our school system totally right from the essential classes to college level. This issue is answerable for the gigantic wastage of human potential and offices for training separated from the finical wastage, which a non-industrial nation like our own can sick manage. The current review assists us with giving the viable media to introduce the substance matter among the huge number of understudies in a homeroom. This study researched the degree of the effect of ICT on educating and learning of science and to see if understudies showed science with the utilization of ICT materials, for example, PC framework, web offices, shot, video player and so on performed better compared to those instructed with course reading as it were.

3. Objective of the Study

The main objectives of the present investigation were;

1. To review the contrast between exploratory gathering instructed through ICT and controlled bunch showed through customary strategy.
2. To review the distinction between exploratory gatherings I (KSEE Board) educated through ICT and controlled

bunch I (KSEE Board) showed through conventional strategy.

3. To review the contrast between exploratory gatherings II (CBSE) educated through ICT and controlled bunch II (CBSE) showed through conventional strategy.

4. Research Hypothesis

H1-There is a distinction between trial groups instructed through ICT and controlled bunch showed through conventional strategy.

H2-There is a distinction between trial groups I (KSEE Board) educated through ICT and controlled bunch I (KSEE Board) showed through conventional strategy.

H3-There is a distinction between trial groups II (CBSE) instructed through ICT and controlled bunch II (CBSE) showed through conventional strategy.

Research Design:

For the purpose of the present study, the pretest posttest equivalent group design suggested by Best (1983) was adopted with certain modification

Population

The populations of the present study are the 9th class science students studied during the session 2021-2022 in different secondary school of C.B.S.E and KSEE Board of Dharwad region of North Karnataka having ICT facilities.

Sampling

For the reason, a rundown of optional school of CBSE and KSEE Board having ICT offices was ready and four foundations were chosen with the assistance of Lottery

Technique. They chose tests of 4 schools were arbitrarily isolated into gatherings. (I) Test gatherings (ii) Controlled bunches 140 and 80 understudies were chosen from CBSE and KSEE board separately, having same Entering conduct, Knowledge and Financial status. They chose understudies separated into two gathering's specifically trial bunch and controlled bunch.

Tools of Research

For the purpose of the present study following tools were prepared

1. Lesson plan of the selected topic based on traditional method of teaching
2. Lesson plan of the selected topic taught through ICT by investigator.
3. Achievement test in (Chemistry) for the selected topic taught by the investigator.
4. Intelligence Test
5. Socio-Economic status scale.

Data Collection

The required data was collected at two stages as pre-test and post test scores from the achievement test in chemistry.

Analysis and Interpretation of Data

Quantitative techniques were used for analyzing the collected data. For the objectives data was analyzed quantitatively employing statistical techniques of mean, S.D. and t-test.

Section - I

H1- There is a difference between experimental group taught through ICT and controlled group taught through traditional method.

Table 1

Sl. No.	Groups	N	Mean	S.D.	't' ₁ value
1.	Experimental	110	16.32	3.59	3.45
2.	Controlled	110	14.18	5.28	

Table 2

Level of Significance	Obtained 't' value	Table value with df= 223	Result
0.05	3.45	1.96	Significant
0.01	3.45	2.59	Significant

They got t₁ esteem shows that invalid speculation is dismissed at both degree of importance and accordingly Hypothesis-1 is acknowledged. It shows that there is a distinction between exploratory gatherings instructed through ICT and controlled bunch showed through conventional strategy.

Section - II

H2- There is a difference between experimental group I (KSEEBoard) taught through ICT and controlled group I (KSEEBoard) taught through traditional method.

Table 3

Sl. No.	Groups	N	Mean	S.D.	't ₂ 'value
1.	Experimental (KSEE Board)	40	14.80	3.46	3.31
2.	Controlled (KSEE Board)	40	12.20	3.52	

Table 4

Level of Significance	Obtained 't' value	Table value with df= 73	Result
0.05	3.21	1.99	Significant
0.01	3.21	2.64	Significant

The acquired t₂ esteem shows that invalid Hypothesis is dismissed at both degrees of importance and in this way Hypothesis-2 is acknowledged. It shows that there is a distinction between exploratory gathering I (KSEE Board) educated through

ICT and controlled bunch I (KSEE Board) showed through conventional technique.

Section - III

H3- There is a difference between experimental group II(CBSE) taught through ICT and controlled group II (CBSE)taught through traditional method.

Table 5

Sl. No.	Groups	N	Mean	S.D.	't ₃ 'value
1.	Experimental (CBSE Board)	70	17.18	3.42	2.52
2.	Controlled (CBSE Board)	70	15.17	5.72	

Table 6

Level of Significance	Obtained 't' value	Table value with df= 138	Result
0.05	2.52	1.98	Significant
0.01	2.52	2.61	Significant

The obtained t₃ value shows that null hypothesis is rejected at 0.05 level of significance and accepted at 0.01 level of significance. Therefore Hypothesis-3 is accepted at 0.05 level. It shows there is a difference between experimental group II (CBSE) taught through ICT and controlled group II (CBSE) taught through traditional method.

5. Discussion of the Result

Section-1

There is a significance difference between experimental groups taught through ICT programmes and controlled group taught through traditional teaching approach.

Table-1 shows that the mean value of achievement score of experimental groups taught through ICT (M₁=16.32) is higher than the mean value of achievement score of controlled group (M₂=14.18) taught through traditional method. The S.D. of experimental group was 3.59 and controlled group was 5.28. The calculated 't' value was 3.454 and table value at df =223 is 1.96 at 0.05 and 2.59 at 0.01 level of significance. This clearly shows that the obtained 't' value is more than the table value at both the level of significance.

The experimental group got higher achievement score on Chemistry achievement test than the controlled group. The reason was very clear that experimental group were more exposed to such technological programmes in and outside the school. On the contrary, the controlled group student's had limited resources in and outside the school campus.

Section-2

There is a significant difference between experimental group I (KSEE Board) taught through ICT programme and controlled group I (KSEE Board) taught through traditional method.

Table 3 shows that the mean value of achievement score of experimental group I (KSEE Board) taught through ICT (M₁=14.80) is higher than the mean value of achievement score of controlled group I (KSEE Board) (M₂=12.20) taught through traditional method. The S.D. of experimental group was 3.46 and controlled group was 3.52. The calculated 't' value was 3.21 and table value at df =73 is 1.99 at 0.05 and 2.64 at 0.01 level of significance. This clearly shows that the obtained 't' value is more than the table value at both the level of significance.

Section-3

There is a significant difference between experimental group II (CBSE Board) taught through ICT programme and controlled group II (CBSE Board) taught through traditional method.

Table-5 shows that the mean value of achievement score of experimental group II (CBSE) Board taught through ICT ($M_1=17.18$) is higher than the mean value of achievement score of controlled group II (CBSE Board) ($M_2=15.17$) taught through traditional method. The S.D. of experimental group was 3.42 and controlled group was 5.72. The calculated 't' value was 2.52 and table value at $df=138$ is 1.98 at 0.05 and 2.61 at 0.01 level of significance. This clearly shows that the obtained 't' value is more than the table value at 0.05 level of significance and less than the table value at 0.01 level of significance.

It indicates that the school chosen from CBSE had the similarity in organizational climate of the classroom and the socio-economic structure of the children. Even if the group II was not taught through ICT programmes it had the previous experience of such programme and had learnt through mass media formally and non-formally. Thus, it nullified the craze and effect of ICT in the classroom.

6. Major Findings of Study

1. The ICT programme is more effective than the traditional teaching approach in term of the achievement scores of the students. Scientific discoveries of technological advancement have the patterns of life of all human being. Education is also forced to make a note of technology for improving the quality of a pace of activity as well as productivity in teaching learning process.
2. ICT is supposed to be the most powerful medium of mass communication, which has revolutionized the teaching learning process in many ways. ICT programmes designed specifically for classroom teaching were used in the study to create an interest on the ground, which cannot normally be dealt with success in the classroom teaching by a teacher.
3. As we all known the well-said proverb "Seeing is believing and a picture is worth a thousand words" The ICT provides the three-dimensional pictures of the content to motivate the students

and to satisfy the queries and curiosity about various scientific concepts.

7. Implication of the Study

In the current situation, it has been acknowledged by the educationist the significance of ICT in school to foster more interest and up to information on the content. However, the educator can't be disregarded. It helps the educators to give more bona fide and complete information on contact among understudies essentially in those areas, which won't be quickly depicted in words. The ICT gives the three layered image of the substance which helps in rousing the understudies and creating interest among them.

It likewise assists with fulfilling the questions and interest in different logical ideas that an educator is for the most part neglect to do in the study hall educating.

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Cyber Crime during COVID-19

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Abstract:

“KARLO DUNIYA MUTHHI ME” these are the true words across the world with the arrival of internet. Web has become one of the vital pieces of our everyday existence. Cyber-crime, or PC situated crime, is a crime that includes a PC and an organization. A crime where a PC is the object of the crime or is utilized as a device to perpetrate an offense is Cyber-crime. Cyber-crime is advancing and filling because of the Corona virus pandemic. Corona virus is the irresistible infection brought about by the most as of late found Covid. This new infection and sickness were obscure before the flare-up started in Wuhan, China, in December 2019. Corona virus is currently a pandemic influencing numerous nations globally. The world is centered on the wellbeing and financial dangers presented by Corona virus, Cyber lawbreakers all over the planet without a doubt are gaining by this crisis. The Corona virus pandemic has constrained associations.

Keywords: Cyber Crime, COVID-19, Pandemic, CISA, FINRA, DFS, HIPAA

1. Introduction

Throughout the course of recent years, that has been several different pandemics. As of now there are then again other continuous pandemics concerning the Center East Respiratory Disorder (MERS) and HIV/Helps. Ebola is the latest pandemic which has been considered as being under control. The term under will be taken care of. Ebola cases actually happen and the last flare-up has been accounted for on the first of August 2018. At this moment, the last affirmed instance of Ebola was recorded on the seventeenth of February 2020, and hence the grouping of taken care of can be utilized.

Today the total populace is affected by Covid. What's more, 33% of the populace is in Covid secure. A large number of office laborers are telecommuting. These laborers going to gatherings utilizing tele-working plans and getting to non-public information online now and again through home PCs and confidential gadgets the lock-down expands the extension for hoodlums to take advantage of weaknesses and perpetrate monetary crime.

1.1 Concept of COVID-19

Covids are an enormous group of infections which might cause disease in

creatures or people. In people, a few Covids are known to cause respiratory contaminations going from the normal cold to additional serious illnesses like Center East Respiratory Disorder (MERS) and Extreme Intense Respiratory Condition (SARS). The most as of late found Covid causes Covid infection Corona virus.

Corona virus is the name given by the World Health Organization (WHO) on February 11, 2020 for the illness brought about by the novel Covid SARS-CoV-2. It began in Wuhan, China in late 2019 and has since spread around the world. Corona virus is an abbreviation that represents Covid infection of 2019. "Corona virus! How might I safeguard myself as well as other people" depends on the UN Maintainable Advancement Objectives and expects to assist youngsters with grasping the science and sociology of Corona virus.

1.2 Concept of Cyber Crime

The crooks of the twenty first century depend on web and the cutting edge innovation generally for any data expected by them to additional their criminal aims. Cyber crooks have advanced their crimes to making them beneficial Term "Cyber-crime "is every now and again utilized in 21st century

information society and is made by the mix of two words Cyber and crime. The term cyber denotes the cyber space i.e. the virtual space and means of informational space modeled through computer, in which various objects or symbol images of information exist.

However the term crime refers to a social or economic phenomenon and is as old as the human society. Crime is a legal concept and has punishment under law. Crime is a legal wrong that can be followed by criminal proceedings which may result into punishments.

Cybercrime is defined as crimes committed on the internet using the computer as either a tool or a targeted victim. Cybercrime is a term for any illegal activity that uses a computer as its primary means of commission. It is an offence that is committed against individuals or group of individuals with a criminal motive or cause physical or mental harm to the victim directly or indirectly, using modern telecommunication networks such as internet.

Levin's case is among the first high-profile cases of hacking for criminal gain. Vladimir a member of a Russian crime ring, succeeded in hacking into Citibank's network and stealing confidential information of Citibank's customers. Using the customer passwords and codes, Vladimir transferred approx. \$3.7 million without the banks knowledge or consents in 1998 the American court found him guilty and handed Vladimir a three year sentence and ordered him to retribute \$240000 to Citibank.

1.3 Effect of COVID-19 on Cyber Crime

From our Cyber Intelligence Centre, we have observed a spike in phishing attacks, Malspams and ransom ware attacks as

attackers are using COVID-19 as bait to impersonate brands thereby misleading employees and customers. This will likely result in more infected personal computers and phones Not only are businesses being targeted, end users who download COVID-19 related applications are also being tricked into downloading ransom ware disguised as legitimate applications. Organizations should take proactive steps by advising their staff and customers to be more vigilant and cautious especially when opening links, emails or documents related to the subject COVID-19. Organizations should ensure their detection and alerting capabilities are functional while keeping an eye on the impact of having many remote workers.

Palo Alto Networks' Regional Vice President for India & SAARC Anil Bhasinsaid: "Cyber-criminals have been exploiting fears around the COVID-19 outbreak to conduct email scams, phishing and ransom ware attacks. These emails and messages entice users to open malicious attachments by offering more information related to the COVID-19 situation but contain malicious files masked under the guise of links, pdf, mp4 or docx file.

Trishneet Arora, Organizer and President of TAC Security noticed that the low-security guidelines of home Wi-Fi frameworks are a serious danger for the Cyber protection area right now with information of millions of individuals in question. He saw that the job of network safety organizations as of now is more basic than any other time. It is fundamental right now to screen gauge ways of behaving and any bizarre Cyber action ought to be investigated continuously premise.

Some Cyber-attacks during the Pandemic:-

January	COVID-19 proliferates in Wuhan, China Residents in Japan receive phishing emails with infected attachments.
February	Hades Group launches phishing attacks in Ukraine. Fake health care advisories are used to steal computer data globally. Fraudulent advertisements for face masks, hand sanitizers, and COVID-19 'cures' proliferate online.
March	BRNO hospital suffers a ransomware attack. US Department of Health and Human Services suffers a denial-of-service attack. Cyber Criminals steal information from government targets using COVID-19 email lures. Malware for sophisticated scams, featuring maps and updates on affected areas, are sold in cybercrime forums.

Cyber-crime is the best danger to each organization on the planet, and one of the most concerning issues with humankind. The effect on society is reflected in the Authority Cyber crime Report, which is distributed every year by Network protection Adventures. The Worldwide Lawbreaker Police Association (Interpol) as of late gave a worldwide danger evaluation on crime and policing to its 194 part nations.

Security authorities in the Unified Realm and US have given a joint explanation encouraging people and associations to keep an uplifted degree of safety and exhorting them about dangers associated with email and message tricks that seem to have come from confided in sources (eg the World Wellbeing Association) and proposition clinical supplies or treatment to battle the pandemic, or publicize imaginary fortitude initiatives. The proclamation gave specific consideration to Cyber lawbreaker activities coordinated at taking advantage of weaknesses in programming and remote working devices, including video conferencing programming. As per policing, the principal point of Corona virus related Cyber crime is to take individual data, initiate the download of malignant programming, carry out misrepresentation or look for unlawful additions.

Guidance and Published Information:-

Some federal and state agencies and industry groups have issued guidance and published information on these threats and recommendations. These are:-

1. The Cyber protection and Foundation Security Office (CISA) distributed a caution to managers expressing that telecommuting choices require a venture virtual confidential organization (VPN) answer for associate representatives to an association's data innovation organization. (Damage 13, 2020)
2. The Monetary Industry Administrative Power (FINRA) distributed a data notice empowering firms and their related people to go to suitable lengths to address expanded Cyber weaknesses and safeguard client and firm information on organization and home organizations as well as cell phones. (Deface 26, 2020).
3. New York's Branch of Monetary Administrations (DFS) gave direction to controlled foundations in the virtual money space. DFS urges organizations to execute a readiness intend to deal with

the gamble of disturbance to administrations and tasks considering the Coronavirus flare-up. (Walk 10, 2020)

4. the Health care coverage Compactness and Responsibility Act (HIPAA) ought to survey two bits of direction from the U.S. Division of Wellbeing and Human Administrations: (1) a release (Feb 2020) tending to utilization of the HIPAA Protection Rule with regards to the Coronavirus episode, and (2) a notification (Blemish 23, 2020) in regards to implementation of HIPAA rejects medical services suppliers regarding the honest intentions arrangement of telewellbeing during the Coronavirus cross country general wellbeing crisis.
5. California's Head legal officer dismissed industry solicitations to delay the successful date of the state's new information protection regulation, the California Shopper Security Act (CCPA), which is right now set for July 1, 2020.
6. CISA gave a warning notice (Blemish 28, 2020) for state, nearby, and ancestral specialists and their industry accomplices to aid the ID of fundamental laborers in seventeen basic framework areas considering the Coronavirus pandemic.
7. CISA distributed an admonition to people to stay cautious for tricks connected with Coronavirus. These incorporate messages with pernicious connections or connections to deceitful sites to fool casualties into uncovering sensitive information or giving to fake causes. (Walk 6, 2020)
8. The Government Department of Examination (FBI) gave a public help declaration cautioning that it has seen an ascent in Coronavirus related misrepresentation plans from tricksters attempting to take cash or individual data. (Walk 20, 2020)
9. The Bureaucratic Exchange Commission (FTC) is facilitating a page committed to assisting buyers with keeping away from Covid tricks, including how to deal with robocalls, online proposals for inoculations and home test packs, and how to recognize false messages about government improvement checks and general wellbeing data.
10. The Branch of Equity (DOJ) has made a page illustrating its endeavors to recognize, research, and indict crime

connected with extortion plans and Coronavirus.

11. Individual US Lawyer's Workplaces have likewise sent off endeavors to safeguard occupants, like the Virginia COVID Misrepresentation Team.
12. The Customer Monetary Insurance Department (CFPB) distributed an enlightening direction for shoppers with respect to the ascent of Coronavirus related extortion plans.
13. Individuals who accept they are a survivor of a trick or endeavored misrepresentation including Coronavirus can report it to the Public Place for Calamity Extortion Hotline at 866-720-5721 or through email to disaster@leo.gov. People who accept they are the survivor of a web trick or Cyber-crime ought to report it to the FBI's Web Crime Objection Center at 804-261-1044 or ic3.gov.
14. A joint warning distributed today (eighth April) by the UK's Public Network safety Center (NCSC) and US Division of Country Security (DHS) Cyber protection and Framework Organization (CISA) shows that Cyber crooks and high level tireless danger (Well-suited) bunches are focusing on people and associations with a scope of ransom ware and malware.

2. Conclusion

The Coronavirus pandemic is an unequalled worldwide test to all of society. The Coronavirus emergency gives a climate to monetary crime to the Cyber crooks in support of him. Crooks are taking advantage of weaknesses opened up by the Coronavirus lockdown, expanding the dangers of Cyber assaults, illegal tax avoidance (ML) and fear based oppressor funding (TF). Specialists have featured the requirement for (i) causing to notice these crimes so monetary establishments and the overall population are better educated; (ii) additional watchfulness concerning expanding and developing dangers; and (iii) dynamic dividing of data among people in general and confidential areas, and inside and between wards.

Coronavirus will change our lives everlastingly with new work styles, new network safety issues, new proposed strategies, individual cleanliness, etc. The battle against Coronavirus isn't only for the association, representative or client however a joint exertion from everybody. It is likewise

obvious that Post Coronavirus, every one of the associations, organizations and modern gatherings should reevaluate and revise their Cyber gamble the board measures and make new arrangements.

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Application of Math's in Real Life

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Abstract:

By and large, most understudies have been battling with math subject which makes them keep thinking about whether they will at any point apply the information in certifiable life. Educators and parent concede when they have been requested that understudies have not many information about the significance from mathematics, in actuality. To that end this paper depends on use of math's, in actuality. In this paper the most widely recognized and fundamental uses of mathematic, in actuality, is examined like money and banking, climate expectation, COMPUTERS and its games, web crawlers (Google), music and Transportation and coordinated operations. Aside from these a few high level applications are likewise examined like satellite route, military and Guard and wrongdoing forecast.

Keywords: Mathematics, Real life, Finance and Banking, Satellite Navigation, Military and Defense

1. Introduction

Mathematic is the way to opportunity as of now not simply the language of mathematics. Mathematics presently contributes in immediate and crucial ways to Business, Wellbeing, Money and Safeguard. For understudies it is vital subject since it opens ways to vocations subsequently understudies should be fit to relate this subject with their reality. Subsequently educators of mathematic need to show math through genuine ideas in private existence of understudies. On the off chance that mathematics ideas instructed by means of educators officially, understudies will deal with numerous issues which can't tackle it.

The principal and standards for school mathematics has stated that mathematical instructions should enable students to;

1. Recognize and use association among mathematics thoughts.
2. Understand how mathematics thoughts interconnect and expands on each other to create an intelligible entire lastly.
3. Recognize and apply math in items in mathematics.

According to NCTM cited for Students of Grades 9 to 12th

1. Understudies ought to have capacity to utilize their insight into mathematics demonstrating and information examination to grasp cultural issues and work environment issues in sensible profundity.
2. They ought to be certain to make sense of complete applications in the rest of the world by utilizing mathematics.
3. They figure out how to execute associations as well as they figure out how to exploit them utilizing experiences gamed in one setting to take care of issues in another.
4. Understudies ought to have capacity to utilize their insight into mathematics demonstrating and information examination to grasp cultural issues and work environment issues in sensible profundity.
5. They ought to be certain to make sense of complete applications in the rest of the world by utilizing math.
6. They figure out how to execute associations as well as they figure out how to exploit them utilizing experiences gamed in one setting to tackle issues in another.

2. Literature Study

In this segment, we expressed a few papers that are about mathematics ideas and its connection to reality. Costu (2009) demonstrated that understudies who were fruitful in math were likewise observed to be neglecting to apply mathematic in genuine issues in day to day existence. This might be because of absence of building connections among math and reality. In other review Salout (2013) concentrated on the secondary school understudies origination about the connection of math to genuine in 3 strands; math, exploratory science and humanities. In this investigation he discovered that it is important to adjust educational plans and reading material as far as mathematic turn of events and understudies needs, in actuality. Additionally Arthur (2018) learned about educator's capacity to associate mathematic to genuine issues so understudies fabricate their advantage in science. This investigation discovered that educators capacity to associate mathematic to genuine issue can be placed into 2 head parts and these parts essentially predicts 57.4% understudies revenue in math. The investigation likewise discovered that in the event that mathematic educators invest generally energy for rehearsing class work out, understudies will be keener on science. After concentrate on this examination papers it has been presumed that paper will must be planned which told pretty much all the fundamental use of science, in actuality, so understudies will more comprehend the subject profoundly and associate this subject to their genuine issues.

3. Real Life Applications of Mathematics

3.1 Finance and Banking

To exhibit the importance of Mathematics in the Banking sector, we have compiled a few points below:

- 1. Daily Accounting Operations:** Right from the teller to the branch chief; anybody working in the financial area handles enormous amount of cash consistently. In this way, they must have the essential mathematic-crunching abilities like expansion, deduction, augmentation, division. The computations included are focused on charge credit and record adjusting.
- 2. Policy Plan:** Highest level financial authorities have the obligation of making a useful and implementable monetary strategy for the bank that might be useful to the association arrive at its objectives

for the monetary year or any predefined time span.

Risk Appraisal: Home loans and Credits from the essence of the financial business and hazard appraisal for such cases must be assessed utilizing complex mathematics models. Risk evaluation is a vital perspective for which banking proficient should utilize complex mathematics abilities and models to quantify how much gamble openness for the association and send counter measure to control the harm.

- 3. Economics:** Watching out for contemporary large scale activities and patterns, to compute and anticipate the future course for homegrown as well as worldwide economy.
- 4. Financial Patterns and Expectations:** This is one more vital part of the financial business that totally depends upon science. To show up at valid and noteworthy expectations for the future; banking experts might need to depend upon models like Stochastic math or Dark Sholes.
- 5. Investment Banking:** Albeit somewhat new and developing perspective; venture banking has arisen as one of the quickest developing fields of the financial business. With regards to venture banking, experts need to depend on diverse monetary mathematic. These may incorporate halfway differential math, likelihood, stochastic analytics and others comparative ideas.

3.2 Predicting the Weather

The weather condition is an incredibly intricate framework, with billions of particles communicating. This makes foreseeing the climate an unquestionably troublesome assignments, in any event, utilizing the broad organization of weather conditions stations, satellites, and the world's biggest supercomputers.

The calculations connected with weather conditions estimate is associated with liquid elements and the condition utilized for weather conditions conjecture is Navier stock condition. To be more exact, we address conditions connected with liquid stream under specific circumstances like preservation of mass, energy and coherence condition. The underlying condition of the air is characterized with different boundaries, for example, temperature, pressure, dampness and so on. Then a future

anticipated state is arrived at through calculations. Considering the non-linearity of the relations between different state boundaries, the specific arrangement of conditions turns out to be exceptionally drawn-out. Thus math approach is taken on where in the climate is partitioned into lattices and levels and conditions are tackled.

Yet, even minuscule contrasts in estimations and the recreation boundaries can significantly affect these forecasts. Subsequently it is as yet difficult to precisely foresee the climate in excess of half a month ahead of time however the exactness of mathematics models and speed of COMPUTERS will just work on from now on.

3.3 Computers

Computer can be perceived as blend of mathematic and physical science utilized for innovation, designing and examination. Alongside material science, mathematic is one of the underpinnings of computer mathematics. Albeit high level science isn't applied regularly, essential math and in particular, algebra is the primary justification for progress behind an effective Computer scientist. The main branch where mathematics is applied in computer mathematics is as follows:

1. Mathematic-crunching, examination, legitimate, task and restrictive administrators utilize math.
2. Calculations that establish the underpinning of computer mathematic depends vigorously on science.
3. Hypothetical computer math includes a ton of science which manages numerical construction that is discrete as opposed to consistent.
4. Hypothetical computer math includes a great deal of science as diagrams, calculations, variable based math, quantum calculation, computational calculation and computational mathematic hypothesis.
5. Computer works on parallel digits which is fundamentally science.

A computer programmer may not need mathematics in the beginning but as programmer advances, more advanced mathematics is used.

3.4 Making Music

The documentations of writers and sounds made by performers are associated with arithmetic. The following time we hear or play traditional, rock, people, strict, stately, jazz, drama, pop, or contemporary

kinds of music, consider what arithmetic and music share practically speaking and how math is utilized to make the music we appreciate.

Reading Notes and Fractions

Melodic pieces are perused similar as we would peruse math images. The images address some piece of data about the piece. Melodic pieces are separated into segments called measures or bars. Each action encapsulates an equivalent measure of time. Besides, each action is partitioned into equivalent segments called beats. These are numerical divisions of time.

Divisions are utilized in music to demonstrate lengths of notes. In a melodic piece, the timing scheme enlightens the performer data concerning the beat of the piece. A timing scheme is by and large composed as two numbers, one over the other. The mathematic on the base lets the performer know which note in the piece gets a solitary beat (count). The top mathematic lets the artist know the number of this note is in each action. Math can enlighten us a ton regarding melodic pieces.

Each note has an alternate shape to show its beat timeframe. Notes are arranged with regards to arithmetic also. There are entire notes (one note for every action), half notes (two notes for each action), quarter notes (four notes for every action), eighth notes (eight notes for every action), and sixteenth notes (sixteen notes for every action). This maths connotes how long the notes last. That is, an entire note would endure through the whole measure while a quarter notes would just last $\frac{1}{4}$ of the action and in this way there is sufficient time for four quarter notes in a single measure. This can be communicated numerically since $4 \times \frac{1}{4} = 1$. A note with a dab after it protracts the note considerably. For instance, a quarter notes with a dab after it would be held for $\frac{3}{8}$ of an action, since

$$\frac{1}{4} + \frac{1}{2} (\frac{1}{4}) = \frac{3}{8}$$

Three eights of a measure is midway between a quarter note and a half note. It is important for musicians to understand the relationships and values of fractions in order to correctly hold a note.

3.5 Transportation and Logistics

The math of transport and coordinated factors targets upgrading the plan and the activity of organizations for the development of people and products. Such organizations can be displayed as diagrams,

in which items stream from their sources to their objections. The numerical treatment of such models prompts huge scope whole number programming issues, whose arrangement requires the advancement of novel proficient calculations.

Transportation and coordinated factors issues frequently taste really exceptional that relies upon the application. Train creation in railroad arranging prompts algorithmic hyper diagram hypothesis, client conduct in broad daylight and street traffic requires algorithmic game hypothesis, airplane execution is dealt with best by discrete-proceeds with models, reasonable assembling network leads to multicriteria advancement, activity theater planning prompts strong enhancement, etc. To take care of such issues, we consolidate issue explicit exploration that targets understanding this extraordinary design with general ways to deal with manage extremely huge organizations. Foci of our work are on the advancement of versatile coarse-to-fine chart age approaches in discrete relationship to limited component strategies, and on deterioration techniques for the coordinated treatment of different model layers.

3.6 Search Engines

A large number of people groups utilize the web consistently on the grounds that web makes it so natural to find data rapidly, for instance utilizing web indexes like goggle.

To find the most helpful sites and show them at the top, Google addresses all pages on the web in a massive network. The network is familiar with how the different sites are connected, and you can utilize direct variable based math, likelihood, and diagram hypothesis to track down the most famous destinations. Aside from these goggle involves math for the majority different administrations additionally, for example, finding headings in Guides, spam identification in Gmail, voice acknowledgment on Android, text acknowledgment while checking books, compacting YouTube recordings, recognizing faces.

3.7 Crime Prediction

Assuming that we have seen the television series you will recollect numerous manners by which science was utilized by the FBI. And keeping in mind that the majority of these models were made up, math has

genuine applications while planning, anticipating and forestalling wrongdoing. For instance, the way of behaving of a criminal could be displayed as an Irregular Walk, in this manner considering more viable police watches.

Research created during the most recent couple of a long time in the field of wrongdoing examination has arrived at a vital resolution: a few explicit sorts of wrongdoing generally occur in similar spots, leading to the development of wrongdoing areas of interest. Mathematicians worked with the LAPD to comprehend the turn of events and elements of “wrongdoing areas of interest”. Utilizing likelihood, measurements and multitude elements, they observed that there are two sorts of areas of interest which respond distinctively on police intercession.

3.8 Computer Games

Many computer games use 3D graphics. Moving and animating these on a 2-D screen, also light and shadows, rendering colors requires matrices, vectors and many other concepts from 3D geometry and linear algebra. In computer games realistic water and animate moving and colliding physical objects. For this, they use mathematics solutions to the appropriate partial differential equations, such as Navier-Stokes equations which model fluids.

3.9 Satellite Navigation

To decide any area on earth, for example, position, speed and neighborhood season of an individual and vehicle satellite route frameworks like GPS (Worldwide Situating Framework) use signals from satellites. These signs are incredibly exact times. By finding their deferral, a PC can compute the distance away the satellites are. On the off chance that knows the separation from no less than three distinct satellites, and the place of these satellites, we can track down the remarkable and careful place of the recipient on The planet. Measurements are the science speculation of estimating distance. As a result of general relativity, GPS recipients need to utilize Kerr metric to compute distances, as opposed to common Euclidean measurement.

3.10 Defense and Military

As well as giving the system to planning new advancements and weapons, or answers for calculated issues like the transportation of troopers, weapons and food, numerical models can be utilized to create and recreate complex military procedures.

These reenactments could include game hypothesis, insights or likelihood. Lately, cyperwarfare has become progressively significant, for counterintelligence, modern reconnaissance, and psychological warfare. Associations like the NSA or GCHQ create and endeavor to break secret codes.

4. Conclusion

Maths is undeniable. It is a profoundly central thing. It is a fundamental matter of the genuine that can cover all parts of genuine world. As it seen from all above applications that maths is vital apparatus in making music, PC games, in planning sites, in web search tools like goggle and furthermore in cash the executives. By this we can comprehend, arithmetic is truly valuable and huge in our day to day existence as is associated with our ordinary exercises, fostering our basic and functional capacities. Hence understudies should be competent to relate this subject with their genuine life for these schooling systems need to make new boundaries for math training and educators of math need to show math through genuine ideas in private existence of understudies.

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“A Study on Feminist leaders during the start of the fourth stage in the Indian Women's Movement”

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Abstract:

Second women's activist development in India is more changed and dynamic than any time in recent memory ahead. A large number of undertakings, including sexual maltreatment and urgency, regenerative privileges, and work freedoms, are being dealt with by various grassroots affiliations. The women's development is getting more diverse because of the perspiration of endless activists to safeguard the freedoms of Dalit ladies, Muslim ladies, ethnical ladies, and other underrepresented gatherings. There have been a few critical exhibitions and juggernauts over the once ordinarily that have moved in adding care and achieving change. The #MeToo development, the #Justice for Our Little Girls activity, and the wide shows against the Kathua and Unnao assault cases are many cases. This paper depicts the public number of histories who battle against disparity which is as yet experiencing in a contemporary period in the nation influencing the fourth period of the Women Development.

Keywords: Women Development, India, Fourth Stage, Women's Activist Numbers.

Introduction:

Beginning around 2012, the Women Development in India has been acquiring strength. It has thought of the morning of its fourth stage. This is generally a result of the Delhi assault case, which ignited wide challenges and raised the conversation about ladies' security. Additionally, the development has battled for harder ladies' insurance regulations and more grounded authorization of previously being regulations. Moreover, competitors have been attempting to modify social mores and attitudes that help viciousness and boundaries against ladies. Albeit the development has taken impressive steps, significant work should be finished before India can achieve orientation equivalency. This paper centers around a choice of activists who have set up the foundation of this stage and have added to the reason, ordered by their introduction to the world they're Manasi Pradhan, Elsa Marie D'Silva, Barnita Bagchi, Nandini Sahu, Meghna Gasp, Kirthi Jayakumar and Angellica Aribam, portraying their work and impact inside the Ladies' Development.

Public activists who told the fourth period of the Women Development in India

One of the fundamental ladies to bring up is Manasi Pradhan (1962). She's a creator and lobbyist for ladies' freedoms in India. Manasi Pradhan was brought into the world in the Indian territory of Odisha in 1962. She enhanced OYSS Ladies in 1987 as an on-benefit affiliation dedicated to enabling ladies in India, tending to themes like ladies' security, weakness, exile heads, and all the more of late, battles for Coronavirus freedoms. In 2021, she posted on her Facebook timetable "Tune in for a conversation on the effect of the Coronavirus pandemic on ladies, discussing the suggested/separated prerequisites of ladies and young ladies across the world, particularly in the nation"(Pradhan, 2020). She utilizes virtual entertainment to advance her meetings, gatherings, and occasions, invigorating interest among the Indian public and outfitting a discussion for ladies to resolve their ongoing issues.

One more lightening for ladies right now is Elsa Marie D'Silva, brought into the world during the 1970s. She's Safecity's creator and President, Elsa MarieD'Silva, whose group maps sexual urgency in open settings, being "rape in open transportation

scenes scarcely a marvel elite to India" (Lea et al., 2017). Safecity is a site that permits junkies to present their sexual urgency and attack stories secretly. D'Silva is a social business person with more than 10 years of involvement in the field of orientation viciousness

She has created and upheld programs for young men and men on orientation viciousness forestallment and reaction, orientation sharpening and online wellbeing for energetic individuals, and sexual urgency and misuse forestallment for young ladies and ladies. D'Silva has likewise been dealing with Reasonable Improvement thing (SDG) a plan upheld by researchers, laborers, and researchers to enhance what is happening in India, which endeavors to advance ladies' full and viable cooperation in all circumstances of decision-production in political, beneficial, and public life, give widespread admittance to sexual and regenerative wellbeing and conceptive freedoms as concurred in concurrence with the Program of Activity of the Worldwide Gathering on Populace and Improvement and the Beijing Stage for Activity(D'Silva, 2017).

In her new *She Is Accounts of ladies* propelling the manageable improvement assumptions in India(2021) she recounts the tales of a few working ladies and all their hazardous conditions and imperceptibility as pioneers, who " Through their remarkable viewpoints they've partaken on how regardless of one's experiences one can accomplish one's assumptions, defeat socio-creative walls and add to the cooperative great "(NotionPress, 2021)

Barnita Bagchi is one more representation of a women's activist dissident material to contemporary ladies. She was brought into the world in 1973. She's a savvy and imaginative pundit as well as a women's activist interpreter from India. She has been an academic partner in relative Writing at Utrecht College's Division of Dialects, Writing, and Correspondence. As a pundit, she makes an uncommon work in the correlation of prior pens' Indian stories according to a women's activist viewpoint. In one of her papers remembered for her extensive book reference she features that as the substitute lady of Krupabai's hubby and the writer of bright existences of eminent Indian ladies, including Toru Dutt, Padmini Sengupta supervised the Indian Women's Magazine, where Rokeya Sakhawat Hossain

distributed " Sultana's Fantasy", which is her now-exemplary women's activist heartfelt story(Bagchi, 2015)

She concentrates on ladies' instructive story writing and organization in India during the eighteenth and nineteenth hundreds of years, the historical backdrop of training in colonizer and postcolonial India, ladies' creation in England and India during the long eighteenth and nineteenth hundreds of years, heartfelt, tragic, and scholarly manufacture from South Asia, and contemporary postcolonial manufacture. Her investigation examining and reflection on East and Western stories are significant to understand post-frontier creation. In her book *The Legislative issues of the(Im) Conceivable*(2019), Bagchi composes:

If from a white magnificent women's activist viewpoint, it appears to be chivalrous as well as equipped to practice female organization in the white pilgrim states, similarly, a few provincial Bengali men habitually view female impressive skill and capability as devilish and physically obscene. We expressed before that one (wo) man's perfect world is all the time another man's oppressed world.

From a transnational and transcultural perspective, with South Asia and Western Europe as hubs, she is viewed as a worldwide master of ladies' writing, the social history of ladies' schooling, and idealistic examinations. Nandini Sahu is additionally relevant to the present development. Dr. Nandini Sahu is an Indian artist and women's rights activist who was born in 1973. In her innovative scholarly work, she has explored her own problems. According to Karmakar (2017), "Dr. Nandini Sahu's disorientation with verse commenced from the get-go all through everyday life, and she is now an influential figure in modern Indian English verse." She is a renowned speaker of contemporary English writing. She also works as a teacher at the Indira Gandhi Public Open College in New Delhi. Her works include a few studies on post-expansionism, fundamental books, novels, and a collection of poems. Additionally, "Nandini's innovative outcome has been widely circulated in Pakistan, Africa, the United States, and the United Kingdom. Her distributed volumes of verse incorporate *The Other Voice*; *The Quietness*; *Silver Sonnets All the Rage*, *Sukamaa*, and *Different Sonnets*, and *Sita (A Sonnet)*, and most as of

late an altered compilation of ladies writers named "Suvarnarekha" (Karmakar, 2017). She has won a few distinctions, including the All-India Verse Challenge and the Shiksha Ratna Purashkar. Despite the fact that she addresses an image of reformism since her verse and her individual are perceived in any event, expounding on elective ideas a long way from the moderate Indian viewpoint Karmakar concedes she doesn't purposely buy into any "isms" since living for over a decade in a major city like Delhi has permitted her to see a wide range of life, from ancestral Odisha. Thus, ladies in her verse likewise address an assortment of life encounters, show human responses to different conditions, express interiorized thoughts, and existential distress, as well as solidly acclaim the imaginative pleasure of womanhood (Karmakar, 2017). Regardless of whether Sahu straightforwardly distinguishes herself with the women's activist development her activities help to fabricate the way of the people who have been safeguarding and attempting to change what is happening in a savage country like India. By the by, Sahu unknowingly advocates the women's activist reason since she announces:

Woman's rights after every one of the critical components of humanism and judgment of one orientation are obviously not going to make the circle total and effective. Orientation Fairness- that is the soul of my works. I attempt to sharpen the general public about fortitude. What I would call woman's rights is three-layered Women's activist Examinations, Manliness Studies, and Strange Examinations (Karmakar, 2017).

Still huge for the Ladies' Development is Meghna Gasp (brought into the world around 1980), a contemporary Indian essayist who has won various scholarly distinctions for her women's activist interpretation of the tensions of being a solitary lady after the age of 35 in the present society, as well as the scorn and haughtiness coordinated towards ladies in this condition. Focusing completely on a way for ladies beyond parenthood is basic in dismantling and pondering ladies' freedom as individuals, as well as expecting equity among all gatherings. She has two books: *One and a Half Spouse* (2012) and *The Horrendous, Terrible, Exceptionally Awful Uplifting News* (2021), the last option of

which has acquired a ton of consideration since she depicts a piece of herself in the fundamental person Ladoo. She has likewise partaken in the educative TEDx because of her experience as "an actual maltreatment survivor, she has spoken at a few stages, [...] on her own insight, encouraging ladies to take a stand in opposition to aggressive behavior at home. She is attributed to asking ladies to stand up and advocating the trademark "Stop The Quietness. Stop The Brutality" (Gasp, 2021).

One of the attributes of the fourth period of the Ladies' Development is the joining of individuals with various foundations. On account of Kirthi Jayakumar, is a women's activist legal counselor, essayist, craftsman, and social dissident from Bangalore, brought into the world in 1987. Her commitment as a creator has driven youngsters and roused researchers to carry on their exploration of the job of ladies and the patriot development in India. As indicated by Jayakumar (2018),

While there is no solitary characterizing point to discover the introduction of a male-centric society or the orientation-based division that we see around us, it stands genuine that segregation stays genuine. At the point when ladies started to go past the credited job of keeping home or raising and sustaining a family, it became basic for work areas to oblige the necessities of ladies - one sign of which is the universe of maternity benefits.

Moreover, to offer elective schooling, Jayakumar began The Red Elephant Establishment, a little child zeroed-in program that deals with standards like harmony, training, and orientation equity. They are presented to innovation, harmony drives, and narrating. Jayakumar likewise runs The Orientation Security Task a stage supporting orientation issues, assembling a wide range of ladies carefully to examine and propose drives to add to the deconstruction of orientation jobs and the relearning of social connections and collaborations "with an emphasis on orientation, security, equity, and harmony through examination, reportage, and documentation" (Orientation Security Undertaking). Kirthi Jayakumar has gotten many honors thanks to her profession as a specialist and volunteer comparable to business visionaries' undertakings. At last, there are additional political figures like Angellica Aribam (1992),

an Indian "political extremist dealing with problems of orientation, race, and the democratization of legislative issues. In recognition of her work on strategic and legislative challenges, she was named one of Forbes India's "30 under 30" in 2017 (Seshamani, 2020). Aribam was brought into the world in the Indian province of Manipur in 1992. She filled in as a columnist in Upper East India subsequent to finishing her undergrad training at Delhi College. She sent off the Femme First Establishment in 2019, which is "a non-benefit association focused on enhancing ladies' initiative in Indian governmental issues [...] who accepts that more noteworthy portrayal of the underestimated segments in dynamic expands the cycle, which thusly improves the organization and society. Remembering this, we plan to support and prepare ladies political pioneers" (Femme First Establishment). She is quite possibly the most youthful individual, partaking in the understudies' division of the Indian Public Congress stressed the issues with prejudice in India because of Coronavirus contending that "while bigotry and victimization individuals from the North-East has consistently existed, with regards to Coronavirus, it has honed" (Seshamani, 2020). She is as of now managing informal communities to engage ladies to expand their presence in open life forms, she has "endeavored to urge the longing to join legislative issues among young ladies and young ladies, and guaranteed that the entryways of the party I joined were dependably open to anybody with the craving to join governmental issues. Addressing individuals generally accompanies a great deal of liability, particularly when you have a place with a minority local area" (Ladies in International Strategy).

Conclusion:

The fourth period of the Ladies' Development in India is set apart by an expanded spotlight on ladies' privileges. It very well may be said it begins in 2012 as a reaction to the Delhi assault case as the absolute last thing that could be tolerated and go on into the current day. During this stage, ladies' associations started to zero in on the issue of savagery and the overall set of laws' reactions to it. Likewise, the fourth period of the Ladies' Development in India has seen an expansion in the number of ladies' associations and the arrangement of

new sorts of associations, for example, ladies' aggregates and care groups. The development of the Web and virtual entertainment plays likewise had an impact in this period of development, giving new stages to coordinating and organizing.

The objectives of the fourth period of the Indian ladies' development are like those of the past stages, with an emphasis on orientation fairness, ladies' strengthening, and a finish to segregation and savagery against ladies. Nonetheless, there is likewise another attention on issues like climate, monetary equity, and standing separation. The fourth period of the ladies' development in India is continuous, and it is hazy what's in store for the development. Nonetheless, the development has gained huge headway in accomplishing its objectives, and it will keep on being a strong power for change in India.

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“An Investigation of GST’s Consequence in India”

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Abstract:

In the past, India relied heavily on circular levies for its duty governance. However, the Goods and Services Tax (GST) has become the most significant duty reform since independence. This circular duty connects all sectors of the Indian economy, promoting profitable growth by creating a unified request. Essentially, GST is a duty on final consumption that integrates Union Excise Duties, Custom Duties, Service Duties, and State Hand basket. GST benefits consumers by reducing the final burden of taxation, and it will lead to the profitable integration of India. One key difference with GST is that it's levied at the final point of consumption, rather than the manufacturing stage.

Keywords: GST, Profitable Growth, Single Duty, Arbor Rates, Goods.

Introduction:

The Goods and Services Tax (GST) is a duty applied to goods and services. In India, it was introduced through the 101st constitutional amendment and came into effect on July 1st, 2017. The central and state governments replaced multiple levies with GST, which is applied to the maximum retail price of goods and services sold for domestic consumption. Businesses that sell these goods and services collect the GST from consumers and remit it to the government. The tax is generally applied at a single rate across the country and is the most significant reform to India's duty structure in decades. The main purpose of implementing GST was to eliminate double taxation that occurs from the manufacturing stage to the consumption stage. The tax is collected on value-added goods and services at each stage of the production process. Other countries have also adopted GST-based systems.

Review of Literature:

In 2017, Ranjana Upashi conducted a study on the impact of Goods and Services Tax (GST) on various sectors in India. The study found that companies and associations had to pay circular levies, including excise duty and customs duties. Many countries, including France, adopted GST, which provided benefits to sectors such as machinery, FMCG, banking, insurance,

finance, medicine, agriculture, real estate, oil and gas, cement, electronics, aerospace, and gold. The study highlighted how GST could motivate people who are responsible for paying it.

In 2019, Naveen P Singh and Jai Prakash Bisen conducted a study on the impact of GST on the agricultural sector. The study found that the Indian government was pleased to implement the new circular duty reform on goods and services. The reform aimed to reduce circular levies, simplify duty burdens, and improve duty enforcement in the region. The study concluded that reducing duty complexity and increasing compliance were the main factors that could bring significant benefits to future requests. The enhancement in the circular financial policy, similar to GST, is an excellent move for India as it is anticipated to increase duty collection and benefit the agriculture sector in the short term through price changes.

In India, there are four different categories or "slabs" of GST duty that apply to various goods and services. Each slab has a different percentage rate, ranging from 5% to 28%.

The 5% slab covers basic necessities such as sugar, spices, tea, and life-saving medicines. It also includes services like railways, airways, and affordable lodging.

The 12% slab includes products like cell phones and jewelry boxes, as well as some food items like fruit juices and ghee. Business class flights and movie tickets below ₹100 also fall under this slab.

The 18% slab covers a wide range of products including hair oil, pasta, and leather apparel. It also includes some services like high-end lodging, movie tickets over ₹100, and stationery items.

The highest slab, 28%, applies to luxury goods like high-end motorcycles and imported machinery. It also includes services like racing and luxury lodging. A special rate of 0.25 is levied on semi-polished and abbreviated monuments.

No duty Applicable on Goods & Services:

Goods: Rachis without precious essence, chuck, swab, aseptic towels, raw material, eggs, flour, natural honey, curd, lavalieres, handloom, journals, and divinities made of gravestones, kajal, oat, rye, picture books, color books, calligraphies.

Services: The hospices and lodges with tariff below ₹ 1,000, plus IMM course books, and bank charges on the savings regard.

GST One-Time and Current Update:

In the first GST Committee Meeting:

The absolute first gathering of the GST Committee occurred on September 22-23, 2016, and determined to carry out GST on

April 1, 2017. The gathering endured two days and was gone to by 29 states and 2 association domains, with Money Clergyman Arun Jaitley in charge. The focal point of the gathering was to decide guidelines for the creation conspire and to force a 1-2% expense, which would be lower than the GST rates, on vendors with a gross turnover of over Rs. 50 lakhs. There were additional conversations about the GST rates and as far as possible for paying tolls.

In 43rd GST Board Meeting Updates:

The Middle has delivered an acquiring plan, and in the event that it surpasses the cutoff to embrace G-Sec arrangements, which are utilized as a benchmark for any remaining borrowings, it will increment loaning costs for nations and the confidential area. Most nations have selected choice 1, while some have proposed to look for sentiments in light of the arrangement. A credit of Rs 1,600 crore, without interest for a considerable length of time, has been conceded to northeastern states, while Rs 900 crore has been dispensed for comparable advances to Himachal Pradesh and Uttarakhand. The sum should be spent by Walk 31, 2021. Different nations will likewise get advances of Rs 7,500 crore, relative to their portion in the Money Commission's development.

Table.1: GST Rates for Goods & Services

Slab Rates	Popular Goods	Popular Services
5%	Frozen vegetables, Fertilizers, Spices, Plastic waste	Newspaper printing, Takeaway Food, Restaurants
12%	Ghee, Nuts, Fruits, Pouches, purses and Handbags	Temporary basis IP rights, Building construction for sale
18%	Washing Machine, Camera, Shampoo	Outdoor Catering, IT services, Telecom services
28%	Sunscreen, Motorcycles, Pan Masala	Cinema, Food/Drinks/Stay at AC Five Star Hotels

Research Methodology:

Exploration methodology is a systematic approach to solving a problem. It involves conducting scientific research to gain a better understanding of the issue at hand. The researcher typically follows a structured process in investigating the problem. The study is based on both primary

and secondary data and is descriptive and logical in nature.

Testing design and size:

When conducting a study, researchers often use a sample design to help them choose participants. In this particular study, a convenience sample was used to gather data from individuals in the population who

were easily accessible and able to provide information about the GST system. A questionnaire was distributed to 100 respondents in the city of Raichur, located in the state of Karnataka.

Time of study:

The essential information required for the review was gathered by contacting individuals through Google Structures. During this period the experimenter has gathered all the data which is required for the review.

Information Collection:

Primary data: Essential information comprises unique data gathered for a particular reason just from people of various age gatherings and orientations.

Secondary data: Optional information comprises data that previously exists almost been gathered for another reason. The auxiliary information is gathered from the course reading book, interest, investigation papers, and diaries.

Measurable Devices: The measurable device applied is an Opportunity examination

Results and Discussion:

Findings:

1. 87.5% of the answers were ladies' answers.
2. 87.5% of the answers were between the age gathering of 20-29 times.
3. 55% of the answers were from researchers.
4. 75% of the answers procure a yearly installment of below Rs. 20000.
5. Half of the answers thankfully feel that GST has been impacted by request.
6. 72.5 % of the answers were troubled about the propagation of the GST Framework.
7. 57.5% of the answers guess GST is more healthy for both government and individuals.
8. 85% of the answers guess that GST has influenced the evaluation of products and administrations.
9. 70% of the answers were confounded about the GST has affected our dissemination force chain.
10. 32.5% of the answers concur that GST is a decent framework to put arrangements and administration obligations.

Discussion:

1. Present obligation framework permits is a variety of duties, the introduction of GST is probably going to extraordinary.

2. Various areas of Administration which are untaxed. After the prelude of GST, they will likewise get covered.
3. GST might assist with keeping away from turmoil brought about by the current complex obligation construction and will help in the improvement of a typical public solicitation.
4. GST will prompt credit vacuity on freeway buys and a decrease in submission conditions.
5. Applying GST will really do further than essentially reallocate the obligation trouble from one area or Gathering in thriftiness to another.
6. Accomplishes, consistency of tolls across the home, in any case of a spot of assembling or dispersion.
7. The viable execution of GST ensures that India gives an obligation framework that is almost practically equivalent to the remainder of the existence where GST is implemented.
8. GST will likewise enhance the transnational position cost rivalry of brilliant local Labor and products. GST will give a fair-minded obligation structure that is nonpartisan to business processes and geological areas inside India.
9. The GST Gathering ought to bring the four tire demands under the net to help nations from raising obligation rates.
10. Unique projects might be upheld to acclimate organizations and shoppers with the working of GST.

Conclusion:

This study focused on the general outline of GST in India. The common idea of the nation additionally represents its own portion of intricacies and confinements. The public authority put in additional difficulty to guarantee that visitors have a reasonable comprehension and foster a positive discernment towards GST, prompting its acknowledgment. Great comprehension among visitors is significant as it can prompt a positive view of the tax collection strategy. It could start and advance a far-reaching publicity program that could assist with delivering care among visitors in figuring out the reasoning and meaning of GST in India. For the Middle to be appropriate to put obligation at the retail position and for nations to be reasonable to extend administrations will bear native emendations, which will additionally be

passed by the Parliament and state houses. For almost multiple times, India has been nearly implementing a GST. In any case, presently, with political arrangements near being gotten, the country is on the cusp of executing one of the most aggressive and exceptional obligation changes in its free history.

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“A Study on Service Sector's Influence on India's Economic Growth”

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Abstract:

The Indian help area is a significant development motor of the Indian economy. Other than it has likewise worked with India's mix with the world economy through exchange and venture. Services area development rate in India's Gross domestic product enrolled a huge development throughout recent years. Questions were raised by a couple of doubters on the supportability and nature of the development of this area and its commitment to financial turn of events. In the Indian economy, the portion of administration area is merging to worldwide standards and it is not yet clear whether it will proceed with its speed in the future. All the more explicitly, whether the development in the area result and work will outflank the worldwide standards will rely upon the extension of present-day services like banking, correspondence, business services, and the use of data innovation to additional customary services. This paper targets finding out the hindrances in the development of the administration area in India and gave measures to its expulsion with the goal that the presentation of the administration area can work on further. It likewise examines the development capability of the administration area in India.

Keywords: Services, Business, Efficiency, Exchange, Speculation, IT-BPM/ Fin Tech.

Introduction:

The Indian help area is a significant area of the economy and has shown a model of financial development before. This area at present adds to almost 60% of Gross domestic product and 25% of business, and has developed consistently since autonomy for example a range of most recent a long time from 15% to 60%. Thus, the larger part of the nation's utilized populace is reliant upon the farming and assembling sector(whose maximum capacity is yet to be bridled). Consequently, India's future financial development is tested and for quickly tackling the maximum capacity of the Indian help industry, it is fundamental that the business ought to embrace extremely inventive arrangements. As far as administration yield India positions fifteenth on the planet and is the biggest work supplier in the country.

The help area isn't just the prevailing area of the Indian economy yet additionally the area which draws in the most noteworthy FDI, improved trades, and created work. The different areas under the Services Area in

India are development, exchange, lodgings, transport, café, correspondence and capacity, social and individual services, local area, protection, support, business services, and land. In 2018 the administration's area added 53.8% of the public Gross domestic product. This commitment to India's Gross domestic product has expanded multifold in earlier years. In the year 1950, the Administration's Area commitment was just 15% of the nation's Gross domestic product. Consequently, the significance of the administration area in the Indian economy has developed so much that it adds to almost 50% of India's Gross domestic product.

As of not long ago, the Govt. what's more, arrangement creators were not focusing on the help area and were thinking about it as the economy's 'delicate' part since it doesn't deliver 'real'(tangible) products/benefits One more explanation was because of immaterialness of services, gathering charges on its transactions was troublesome. Consequently, the area was disregarded and not didn't get Govt. support. Prior, the services were characterized in

extremely straightforward terms like whatever was not made out of cultivating, assembling, or mining exercises. In the year 1980, the approach producers understood the significance of this area coming about into perceiving the significance of the administration area. Quick urbanization, immense interest in buyer services, and public area development are the principal purposes behind uncontrolled development in the help area in India. For the worldwide intensity of Indian businesses, it was felt important to increment efficiency by guaranteeing admittance to productive services. Thus, Govt. had began concentrating completely on this area from that point forward.

Making Up India's Service Sector:

In India, Central Statistical Organization has given a public income bracket that classifies the service sector in many orders and it includes the following

1. **Trade, hospices & caffs (THR):** Trade, Hospices & caffs
2. **Transport, storehouse & communication:** Railroads, Transport by other means, Storehouse, Communication
3. **Insurance, Backing, Real Estate & Business Services:** Banking & Insurance, Real Estate, Power of Business Services & residences.
4. **Community, Social & Personal services:** Public Administration & defense, Other services.

5. Research Methodology:

This is a descriptive type of exploration that is grounded on secondary data. An expansive check of literature in the area is done for this task.

Crucial Exploration Questions

1. To study the donation of India's service sector in frugality and its comparison with other advanced countries.
2. To identify the issues, challenges, and walls in the growth of the service sector in India.
3. To suggest applicable measures for performance enhancement of the service sector in India.

Literature Review:

Wright & Mechling In their exploration to empirically determine the most important operations operation problems being faced by small service enterprises set up that covering & measuring service quality, effective and effective use of

coffers, unborn events vaticination, price/cost situations, client demands are important issues of operations for service originations. The result also set up that the following factors are insignificant. These factors are installation layout & position, distribution conditions planning, staying line systems, etc.

Singh & Deshmukh and Yassine emphasized the significance of service quality. The multifaceted nature of service quality was honored by the authors who said the same will be estimated by the guests.

Parasuraman, A., Zeithaml, V., Berry, L. Proposed a model of service quality and its dimension. According to this model, service quality is the gap between the anticipated & perceived service of guests. They further explained the reasons for developing those gaps. Service quality dimension and analysis is the first and most important step in the enhancement of service quality.

Behara et al. bandied the development of neural network models for service quality measures. The paper demonstrated how client evaluates service quality guests' neural networks play an important part in similar evaluations thus data mining will yield important perceptivity to impact their evaluation.

Lovelock and Wirtz's guests are an integral part of the operations in the case of high-contact services. Processes that are poorly designed frequently result in poor service delivery, and slow, frustrating delivery. guests feel bothered and irked due to similar gests. At the same time, frontline staff also experiences difficulty in doing their job due to poor processes performing in poor productivity and enhanced service failure threat. Thus, high client contact units should design their process figure in such a way that it'll be suitable for both guests as well as frontline staff.

Grönroos and Ojasalo have developed a conception that is dependent on service processes and their specific characteristics. In this conception, it's assumed that service productivity is told by several factors. Service productivity is the function of internal & external cost-effectiveness of the service supplier. Then internal effectiveness refers to the effectiveness of his workers and internal staff whereas external effectiveness means quality perceived by guests. It also depends on

capacity application i.e. capacity effectiveness.

Schiffman and Kanuk said that client satisfaction is the result of clients' perception of product/ service performance as compared to their prospects. therefore, client satisfaction is the function of their prospects. Hence, a satisfied client is one whose experience exceeds his prospects and vice versa.

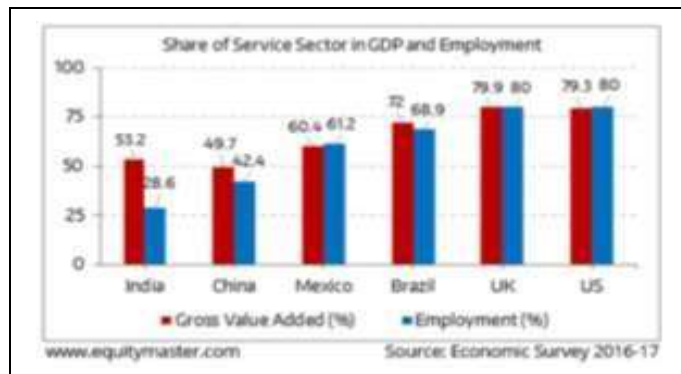
McKinsey & Company(2007) has reflected on the growth of the service sector. The report said that demand for the product/ services changed from necessary to optional one due to an increase in per capita income performing into profitable growth. This has redounded in the growth of the service sector in India. **Gordon and Gupta(2003)** Commenced on variation in the performance and growth of colorful types of services. further growth was visible in the sectors of Communication, business services, and trade as compared to other sectors like defense, legal services, real estate, storehouse,

transport, and particular administration. **Bosworth and Maertens(2010)** Job generation capacity of the service sector was a hotly battled issue. Critics were arguing that there's a mismatch between income & employment growth in the sector.

Request Size of Service Industry:

The unique nature of India's service sector's propelled GDP growth can be seen by comparing the country's frugality with the husbandry of China and America. The following table indicates data about the donation of the service sector in employment and numbers in the type indicate income distribution. In India, the GDP and employment growth are visible due to service sector donation and incompletely through productive husbandry and robust manufacturing. thus, the main question is how to enhance this donation of the service sector further by dwindling employment reliance on husbandry and enhancing manufacturing assiduity.

	India	USA	China
Agriculture & Allied	15.4% (53%)	8% (2%)	7% (26%)
Manufacturing& Industry	23% (22%)	12% (19%)	40% (28%)
Services	61.5% (25%)	80% (79%)	52% (46%)



Labor request arbitrage is substantially responsible for the current growth of the service sector in India. But, India cannot continue this growth of its heavy dependence on 'low cost' and 'low value-added' services. Hence, innovative results to address these challenges are needed for a country like India.

1. Manufacturing sector boosting in such a way that it'll have direct and circular benefits to the service sector.

2. Vertical growth in the Value chain especially in IT/ ITes sectors.
3. Relating global demand for Indian services broad grounded approach of service immolations beyond IT sectors and fulfilling them by our relative advantage and natural capabilities.

Issues:

The Indian service sector is growing by hops and bounds. Newer services are entering into the request. Guests' reliance on these services is growing continuously. Due

to competition, service associations are looking for creative ways to their service quality advancements. But, unlike manufacturing, effectiveness may be due to the fact that the nature of services makes each service unit unique and their characteristics differ extensively across the units. Some of the challenges for the service sector in India are as follows-

Service Productivity: There exists no universal approach for measuring the productivity of services. The impact of colorful factors on service productivity differs. r.t. service quality, the relationship of guests with a service provider, etc. veritably many factors like this are delved till date.

Client exposure: Company's performance & survival depends on client satisfaction. Therefore, for flourishing any business client exposure is the crucial factor.

Service quality: It's established that the nature of service quality is multifaceted and eventually it'll be estimated by the guests. The delivery of service quality and the extent of its matching with prospects of guests determine its quality position. Delivering quality services at a reduced cost is one of the challenges for the Indian service sector.

Branding: The issue of branding isn't taken up seriously by Indian service enterprises. This issue has come more grueling in this global period.

High-end services: Use of IT platforms, ERP, IoT, and services wherein high investment and oddities are involved isn't emphasized in the Indian service sector script.

Challenges:

The question about whether Indian frugality will sustain its emotional growth was batted due to some challenges faced by it. These challenges are physical and social structure, IT structure, rupee appreciation, husbandry & artificial sector reforms, etc. Besides these challenges, some other limiting factors in the field of IT are high waste rate, rising labor costs, demand for quality staff, outsourcing counter reaction, etc. The growth in the sector of IT & ITES has other counteraccusations like profitable, health, social, environmental, ethical, etc. However, India will fall behind the other countries in terms of scale and worldwide presence, If timely ways aren't taken in the direction of establishing conducive business terrain & good governance. In addition to this, some other problems being faced by the service

sector are non-vacuity of data or delayed vacuity of data, productivity, dimension of affairs, etc. Specific challenges of the Indian service sector in India are – hand waste rate, operation of technology (especially IT) due to its high cost, branding, managing force & demand, etc.

Growth Implicit:

Following service sector diligence has good eventuality for growth in India.

IT-BPM/ Fintech:

The IT/ ITeS & Fintech parts contribute over\$ 155 bn in gross value addition and have growth eventuality of 10-15 sire Largest part of it is exports. This is due to the fact that our low-cost labor arbitrage and good command of Indians in the English language. therefore, IT and ITeS member needs to upskill themselves so that they can move beyond a 'low-cost, low value-added service provider' to a 'high cost, high-value add mate.

Healthcare & Tourism:

Healthcare diligence donations are anticipated to grow from\$ 110bn to\$ 280bn by the end of 2021. Our advantages are the vacuity of world-class croakers, technicians, medical installations, and professed druggists. Due to extremely lower cost, easy access, English-talking health workers, and digital communication installations indeed the global guests are heading their way to India.

In the case of tourism, India has lots of literal places and natural beauty having tourism eventuality. Compared to China, the Indian tourism sector's donation in the country's GDP is low and it's\$ 47bn as against the \$ 115 bn of China.

Space:

India has formally proven its capability in space technology. Due to low cost, easy access, and excellent track record, numerous countries are looking for serving the services of India's launch installations. There's huge eventuality in this sector and India has an advantage over other developing countries.

Logistics & Transportation:

India has a long natural bank and a huge swash network. It gives a competitive advantage in the area of logistics and transportation to India. These can be classified into trans-payload services, anchorages and anchorages services, warehousing, e- logistics, inland aqueducts for freight and passengers, roadways, and

devoted freight corridors. India's logistics service sector itself is anticipated to grow from \$ 115 bn to \$ 360 bn by 2032.

Other services:

Media & Entertainment (vitality, gaming, dubbing), Education (online platforms similar to MOOC), Sports (IPL, IFL, and Sports Management), Legal/ Paralegal services, threat operation, and premonitory functions, etc. are areas that can lead to an immense donation of service assiduity in the Indian frugality.

Governmental Enterprise for Indian Service Sector Growth:

This paper suggests many reforms for enhancement in the effectiveness and productivity of the service sector in India.

1. **Exclusive Ministry for Service Sector:** There's no government policy on how the sector can lead to inclusive growth. This is incomplete because the focus is on husbandry and manufacturing, and the service sector has largely been left to grow on its own. There's no nodal ministry for services like merchandising while for others like transport and energy, there are multiple ministries with disagreeing interests. The quasi-federal governance structure has led to multiple nonsupervisory bodies, multitudinous regulations, and multiple concurrence conditions. A nodal agency can be linked for each service and given the responsibility to see that the strategies are enforced.
2. **Regulatory reforms:** Some regulations don't take into account technological developments while others are outdated or don't follow transnational stylish practices. The being regulations don't take into account the characteristics of new services similar to direct selling and express delivery. Lack of specified norms and common delegation also negatively affects services like construction and education.
3. **Junking of FDI restrictions** since the government doesn't have acceptable coffers, it's important to encourage private and foreign investment in the service sector to grease inclusive growth. To attract FDI, the policy should be transparent, and technology-neutral, and shouldn't distinguish between domestic and foreign companies. To fight any adverse impacts, regulations can be in place to cover the sector.

4. **Service sector employment and education:** In India, the gross educational registration rate is low, and there are wide variations in quality across institutions. Degrees granted by some private universities aren't honored indeed within India therefore further affecting employability. In numerous cases, companies have to invest mainly in training workers. Fastening vocational training and developing applicable classes will increase the employability of scholars in the service sector. The quality of education can be bettered through proper delegation of transnational norms.
5. **Levies and subventions:** India has a high commercial duty rate of 30 – 40 compared to around 17 in Singapore and over 25 in the PRC. For goods like petroleum, there are multiple levies and impositions that vary across countries.
6. **Access and vacuity of structure:** In India government investment in structure is low and has not been suitable to meet demand. For case, utmost ICT companies have to invest in power units due to the erratic power force. This increases their costs. Companies in construction, ICT, sanitarium services, and retail, among others, find it delicate to acquire property due to the lack of civic planning, restrictive zoning regulations, outdated laws related to land conversion, and the lack of clear power and titles to land.

Conclusion:

India should nearly look into the development of service assiduity, given the implicit need for sustained large-scale investment. Investments generally have a long gravidity period. still, once the structure is created, liaison to the rest of the frugality gives significant multiplier goods. For illustration, the Mumbai- Pune thruway and the development of service diligence in Pune. Many measures like an exclusive ministry for the service sector, icing Govt. policy focus on the service sector, nonsupervisory reforms, removing FDI restrictions, enhancement in public structure & vocational education, reduction in levies, etc. can ameliorate the performance of the service sector in India.

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Navigating the Impact of Domestic Robots: A Comprehensive Analysis

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Abstract

This paper presents a comprehensive exploration of the transformative effects of domestic robots on modern society. The first section delves into the manifold advantages that domestic robots bring to households, highlighting their role in enhancing convenience, efficiency, and overall quality of life. By automating routine tasks and offering personalized experiences, domestic robots alleviate the burden of household chores, leaving residents with more time for meaningful activities. Moving beyond the household, the second section examines the profound societal and economic implications of the widespread adoption of domestic robots. While the positive effects are evident in job creation within the robotics industry and improved resource efficiency, potential negative consequences, such as job displacement and economic redistribution, must also be addressed. This section navigates the complexities of finding a balance between reaping the economic benefits and ensuring equitable societal outcomes. The final segment of the paper delves into the dynamic realm of human-robot interaction. It explores how the increased presence of domestic robots reshapes the dynamics of human relationships, social interactions, and emotional well-being. From providing companionship to influencing traditional gender roles, the paper examines both the opportunities and challenges that arise as robots become integral members of households. The evolving landscape of social norms and the implications of emotional substitution are also explored, along with the importance of nurturing social and emotional skills to maintain a harmonious coexistence.

Key words: domestic robots, Societal and Economic Implications, Human-Robot Interaction Dynamics

Introduction

The fusion of technology with our everyday lives has given rise to a new era where domestic robots are becoming ubiquitous companions within households. In an era characterized by accelerating lifestyles and evolving roles, domestic robots offer a beacon of hope by addressing the challenges that arise from daily chores and responsibilities. By automating routine tasks like cleaning, cooking, and maintenance, these robots bestow the gift of time to individuals, allowing them to focus on pursuits that enrich their lives. The concept of personalized assistance takes center stage as these machines adapt to individual preferences and rhythms, fostering an environment that caters to unique needs. While these advantages are apparent, the

paper delves deeper into their manifestation, exploring how the amalgamation of technology and home life influences emotional well-being, relationships, and the sense of self.

The emergence of domestic robots is not confined solely to homes; it resonates across the broader societal tapestry. While these robots usher in efficiency and innovation, they also pose potential challenges to established norms. As they reshape the landscape of employment, discussions on job displacement, skill up gradation, and shifts in labor markets come to the forefront. Simultaneously, the economic implications echo through sectors, promising heightened productivity while raising concerns about economic redistribution. This section of the paper

examines the delicate equilibrium required between harnessing the technological potential and mitigating potential disparities. Perhaps the most profound transformation lies in the realm of human-robot interaction, where technology penetrates the intimate sphere of human relationships. These machines, designed to support, assist, and even provide companionship, have the potential to reshape emotional connections, redefine social norms, and challenge the very essence of what it means to be human. The paper delves into the complexities of this interaction, exploring the fine line between fostering connections and inadvertently substituting them, between enhancing relationships and potentially isolating individuals.

Problem Statement:

The integration of domestic robots into modern households has sparked a technological revolution with multifaceted implications for individuals, societies, and economies. While the advantages of domestic robots are evident in terms of convenience, efficiency, and improved quality of life, their pervasive presence raises critical questions about the potential challenges and ethical considerations that accompany this transformation. The problem at hand lies in understanding how the increased reliance on domestic robots impacts human relationships, social interactions, emotional well-being, employment dynamics, labor markets, and economic structures. As robots become integral companions within households, there is a need to address the potential consequences of altered social dynamics, job displacement, and the ethical dilemmas that arise when anthropomorphizing technology. Balancing the advantages with these challenges necessitates a comprehensive exploration of the societal, economic, and emotional implications of integrating domestic robots into our daily lives. Thus, the overarching problem addressed by this paper is to critically assess the multi-dimensional impact of domestic robots on human lives, the evolving dynamics of relationships, and the larger socio-economic framework, thereby guiding the responsible and harmonious integration of technology into our homes and societies.

Research Methodology:

This paper aims to comprehensively explore the advantages of domestic robots,

their societal and economic implications, and the dynamics of human-robot interaction. To achieve this, a multi-faceted research methodology is employed, encompassing a qualitative approach. The methodology is designed to provide a well-rounded understanding of the complex interplay between technology and society. Through a combination of literature review, qualitative analysis, case studies, and observations, this research methodology aims to provide a holistic understanding of the multi-faceted impact of domestic robots.

Objectives:

1. To Analyze the Advantages of Domestic Robots:
2. To Investigate the Societal and Economic Implications
3. To Explore Human-Robot Interaction Dynamics

Analyze the Advantages of Domestic Robots:

The integration of robots into domestic settings has ushered in a new era of convenience, efficiency, and improved quality of life for residents. As technological advancements continue to shape our daily lives, domestic robots are emerging as key players in transforming mundane household tasks into seamless, time-saving experiences. This section explores and presents a comprehensive overview of the benefits that robots bring to domestic settings, highlighting their contributions to convenience, efficiency, and the overall enhancement of residents' well-being.

Enhancing Convenience: Robots have revolutionized the way we approach household tasks, introducing a level of convenience that was once relegated to science fiction. By automating routine chores and activities, they liberate residents from the tedium of repetitive tasks, allowing them to allocate their time and energy to more meaningful pursuits. For instance, robotic vacuum cleaners deftly navigate through rooms, sweeping away dust and debris while their owners engage in other activities or relax. Similarly, robotic lawnmowers maintain lush lawns without requiring constant supervision, granting homeowners more leisure time.

Improving Efficiency: The efficiency of domestic operations is significantly bolstered by the integration of robots. These machines are designed to perform tasks with precision and consistency, reducing the likelihood of

human errors. In the kitchen, robotic assistants can follow recipes to create perfectly cooked meals, adhering to precise measurements and timings. This not only results in culinary delights but also frees residents from the need to closely monitor cooking processes. Furthermore, robots equipped with sensors can optimize resource usage, such as adjusting heating or cooling systems based on occupancy patterns, leading to energy savings and reduced utility costs.

Enhancing Overall Quality of Life:

Beyond convenience and efficiency, the integration of robots into domestic environments profoundly impacts the overall quality of life for residents. Elderly individuals and those with disabilities find newfound independence through robotic companions that assist with tasks ranging from medication reminders to mobility support. These robots foster autonomy and dignity, enabling individuals to remain in the comfort of their homes for longer periods. Additionally, domestic robots contribute to stress reduction by sharing the burdens of daily upkeep. With robots taking care of cleaning, organizing, and maintenance tasks, residents experience a more harmonious living environment that positively affects their mental and emotional well-being.

Promoting Personalization: Modern domestic robots are designed to learn from their interactions with residents, resulting in personalized experiences. These robots adapt to individual preferences, tailoring their behaviors to align with the unique routines and needs of each household member. For example, a robot might adjust its cleaning schedule based on when residents are typically away from home or customize its interactions based on language and communication patterns. This personalized touch enhances the relationship between residents and robots, making them feel like valued members of the household.

Investigate the Societal and Economic Implications

The integration of robots into domestic settings represents a transformative step in the evolution of technology's role within our lives. While the benefits of domestic robots are evident, their broader societal impact cannot be overlooked. This section delves into the intricate interplay between robots and society, considering both the positive and negative

effects on employment, labor markets, and the economy. As we explore this intricate relationship, it becomes clear that the deployment of robots within households is not only a technological evolution but a societal transformation.

Positive Effects on Employment and Labor Markets:

Domestic robots have the potential to bring about positive shifts in employment dynamics and labor markets. **Job Creation in Robotics Industry:** The development, manufacturing, and maintenance of domestic robots create job opportunities across various sectors of the robotics industry, from research and development to technical support.

Skill Up gradation: As robots take over routine and repetitive tasks, human workers can focus on more complex and creative roles that require critical thinking, problem-solving, and emotional intelligence. **Expanded Job Categories:** The emergence of domestic robots could lead to the creation of entirely new job categories related to robot management, customization, and user training.

Negative Effects on Employment and Labor Markets:

However, the integration of robots can also have negative consequences for employment and labor markets. **Job Displacement:** Routine household tasks, once performed by humans, are now being automated by robots. This displacement could lead to reduced demand for human labor in industries such as cleaning, cooking, and maintenance.

Impact on the Economy: The introduction of robots into domestic settings has a complex impact on the economy. By efficiently handling household tasks, robots can free up human time for more productive activities, potentially leading to increased economic productivity. In the long term, domestic robots can lead to cost savings for households by reducing the need for external services and utilities through optimized resource usage.

Economic Redistribution: As robots take over certain tasks, there could be a shift in economic power and wealth distribution, as the demand for specific human skills changes. The integration of robots into domestic settings necessitates a delicate balance between technological advancement and societal well-being. Policymakers, industries, and educational institutions must collaborate to ensure that the positive effects

of robotics on employment, labor markets, and the economy are maximized while mitigating potential negative consequences. This includes investing in retraining and upskilling programs for workers, promoting research and innovation in industries related to robotics, and fostering a supportive environment for both human workers and robotic technologies.

Human-Robot Interaction Dynamics

The integration of robots into domestic environments introduces a new dimension to the intricate tapestry of human relationships, social interactions, and emotional well-being. While robots offer practical assistance and convenience, their growing presence within households raises questions about how these technological companions might influence our connections with each other and our overall emotional experiences. This section investigates how the increased presence of robots in domestic environments may impact human relationships, social interactions, and the emotional well-being of residents.

Companionship vs. Isolation: For individuals living alone, robots may offer companionship and alleviate feelings of isolation. However, there's a concern that excessive reliance on robots might replace genuine human interactions, leading to social detachment. As robots take over household tasks, there could be a reevaluation of traditional gender roles and divisions of labor, influencing how partners interact and collaborate.

Emotional Connections: Robots can influence emotional connections within households. Humans often anthropomorphize robots, attributing them with emotions and personalities. This can lead to emotional bonds and attachments, blurring the lines between human-human and human-robot relationships. Robots equipped with AI-driven conversation abilities could offer emotional support, lending a listening ear or providing reassurance in times of stress.

Potential Challenges: While robots bring potential benefits, there are potential challenges as well. The presence of robots offering emotional support might lead to a reduction in seeking support from human companions, potentially hindering the development of empathetic relationships. The capacity for robots to mimic emotions raises ethical questions about authenticity and consent, especially in cases where individuals

may perceive a robot as a genuine emotional partner.

Acceptance of AI Interaction: As interactions with robots become more normalized, individuals might become more accepting of engaging with AI in various contexts, both within and beyond the home. The boundary between physical and virtual social interactions might blur, with robots acting as intermediaries for remote communication, altering the nature of human-human relationships.

Maintaining a Balance: As the role of robots in domestic life evolves, striking a balance between human-human and human-robot interactions becomes crucial. Promoting an understanding of the benefits and limitations of robots can help individuals make informed decisions about their use within households.

Social and Emotional Learning: Fostering social and emotional skills remains essential, regardless of the presence of robots, to ensure individuals can navigate complex interpersonal interactions effectively.

Conclusion:

In the ever-evolving landscape of technological innovation, domestic robots emerge as pivotal players in shaping the fabric of our lives, relationships, and economies. This paper has explored three critical dimensions of this transformative phenomenon: the advantages of domestic robots, their societal and economic implications, and the dynamics of human-robot interaction.

Domestic robots, by enhancing convenience and efficiency, offer residents a glimpse into a future where mundane tasks no longer dominate their time. As companions and helpers, these robots contribute to improved emotional well-being and quality of life. However, this advancement necessitates an awareness of the potential trade-offs between convenience and the preservation of authentic human connections.

In the realm of societal and economic implications, we've observed the dual nature of robots as job creators and potential disruptors. The promise of increased productivity and resource efficiency comes hand in hand with the challenge of ensuring equitable distribution of benefits and minimizing negative impacts on certain segments of the workforce. The pursuit of balanced growth demands innovative strategies that harness the advantages while

addressing the concerns, fostering inclusive prosperity.

Finally, the interplay of human-robot interaction delves into the very essence of our social fabric. As robots become integral members of households, they reconfigure companionship dynamics, challenge traditional gender roles, and blur the lines between virtual and physical connections. The rise of robotics calls for a nuanced approach to cultivating social and emotional skills to ensure the preservation of genuine human bonds amid technological advancement.

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“An Exploration towards Innovation and Technology's Role in India's Growing Entrepreneurial Culture”

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Abstract:

This qualitative study tries to investigate how technology and creativity have contributed to the growth of entrepreneurship in India. The study is grounded on a secondary data analysis of colorful sources, including exploration papers, academic journals, government reports, and statistics. The paper also analyzes the impact of government programs and enterprises on fostering invention and technology-driven entrepreneurship in India. It discusses colorful schemes and programs launched by the government to support startups and examines their effectiveness in promoting invention and technology relinquishment among entrepreneurs. The exploration findings indicate that invention and technology play a pivotal part in the growth and success of entrepreneurship in India. The analysis highlights the significance of access to technology, education, and backing as crucial motorists of invention and entrepreneurship. The paper concludes by suggesting colorful policy measures that can be enforced by the government and other stakeholders to foster a terrain that's conducive to invention and technology-driven entrepreneurship in India.

Keywords: Entrepreneurship, Technology, Innovation, MSMEs, Startup, Block chain

Introduction:

Entrepreneurship in India has seen significant growth and development over the once decade. With a growing frugality, increased access to capital, and government enterprise aimed at supporting small and medium enterprises(SMEs), the incipency ecosystem in India has flourished. India has surfaced as one of the world's leading incipency capitals, with a thriving entrepreneurial ecosystem. The country has seen a rise in the number of startups, with over 50,000 startups registered in the last decade. The Indian government has taken several ways to promote entrepreneurship, similar to the Startup India Initiative, which provides backing, mentorship, and other support to startups.

The part of invention and technology in entrepreneurship development in India is significant. Indian entrepreneurs have been using technology to make scalable and sustainable businesses, and numerous startups in India have been in the van of invention, dismembering traditional business

models. The use of technologies similar to AI, machine literacy, blockchain, and pall computing has enabled startups to develop new products, services, and business models.

The Indian government has also been promoting the relinquishment of new technologies through colorful enterprises similar to the Digital India crusade, which aims to digitize frugality and produce a robust digital structure. The growth of the Indian incipency ecosystem has also been supported by an increase in adventure capital and angel investments in the country.

Literature Review: Innovation is a crucial motorist of entrepreneurship development in India, and its part in the success of startups has been well-proven. According to a study by the World Intellectual Property Organization(WIPO), India ranks third encyclopedically in terms of invention and has the implicit to come a major invention mecca in the world(WIPO, 2021).

In another study, experimenters set up that invention is appreciatively related to the success of startups in India. They

suggested that innovative startups are more likely to attract adventure capital backing and have an advanced survival rate than non-innovative startups(Krishnan, 2019).

According to a study by Singh et al.(2021), invention and technology are critical in promoting entrepreneurship in the husbandry sector, particularly among small and borderline growers. The study suggests that policymakers should concentrate on promoting invention and technology relinquishment in Indian husbandry to support entrepreneurship development.

A study by NASSCOM estimates that the Indian technology incipency ecosystem is anticipated to reach a valuation of\$ 1 trillion by 2025, with the number of startups adding to over 100,000(NASSCOM, 2020).

The Indian government has launched several enterprises to promote invention and technology in entrepreneurship. One similar action is the Startup India program, launched in 2016 to give backing, mentoring, and other support to startups. Another action is the Atal Innovation Mission, which aims to promote invention and entrepreneurship among scholars in seminaries and sodalities. The charge provides backing, mentoring, and other coffers to youthful originators and entrepreneurs(NITI Aayog, 2021).

Objectives:

1. To examine the impact of the invention on the success of startups in India.
2. To probe the part of technology in promoting entrepreneurship development in India.
3. To identify the challenges faced by startups in espousing innovative technologies in India.
4. To dissect the government enterprise to promote invention and technology in entrepreneurship in India.
5. To recommend strategies to enhance the part of invention and technology in promoting entrepreneurship development in India.

Research Methodology: The exploration methodology for the exploration paper on the part of invention and technology in entrepreneurship development in India can be structured as follows:

Research Design: The exploration design for this paper will be descriptive and logical. It'll concentrate on examining the part of invention and technology in entrepreneurship development in India and the factors that impact their relinquishment.

Data Collection: The data for this exploration paper will be collected using secondary sources similar to academic journals, reports, and publications related to entrepreneurship development in India, invention, and technology relinquishment. also, government reports and programs related to entrepreneurship and invention in India will be anatomized to give a comprehensive overview.

Data Analysis: The data collected from colorful sources will be anatomized using thematic analysis. The analysis will be used to identify the crucial themes and trends related to invention, technology, and entrepreneurship development in India.

Obstacles Encountered by Entrepreneurs in India:

Access to funding: Access to backing is a significant challenge for entrepreneurs in India, especially in the early stages of their adventure. Despite the rise in adventure capital and angel investments in the country, it's still challenging for startups to secure backing.

Regulatory hurdles: India has complex and time-consuming nonsupervisory processes that can be a challenge for entrepreneurs. This includes carrying licenses, blessings, and permits.

Lack of professed gifts: India's education system doesn't always produce job-ready graduates, which can make it challenging for startups to find professed gifts.

Structure challenges: Despite the government's enterprise to ameliorate structure, entrepreneurs still face challenges related to shy physical and digital structure, including internet connectivity, power force, and transportation.

Request challenges: India's different request presents unique challenges for entrepreneurs, including indigenous and artistic differences, and a lack of request exploration.

Openings for Entrepreneurs in India:

Large request: With a population of over 1.3 billion people, India offers a large and different request for entrepreneurs.

Government support: The Indian government has launched several enterprises to support entrepreneurship, including the Startup India Initiative, which provides backing, mentorship, and other support to startups.

Technology relinquishment: India is one of the swift-growing requests for technology

relinquishment, with a large number of Smartphone druggies and internet druggies. This presents significant openings for entrepreneurs to develop innovative results that work with technology.

Rising middle-class: India's growing middle class presents a significant occasion for entrepreneurs, as consumers have increased coping power and are willing to spend on innovative products and services.

Low cost of labor: India's low cost of labor makes it a seductive destination for entrepreneurs looking to set up operations and manufacture products at a lower cost.

Significance of invention and Technology in driving Entrepreneurship Development

1. Innovation and technology play a critical part in driving entrepreneurship development in India. In recent times, India has surfaced as a mecca of invention and entrepreneurship, with a growing number of startups and an adding focus on developing a strong ecosystem to support entrepreneurship.
2. One of the crucial motorists of entrepreneurship development is the vacuity of innovative technologies that can enable new products and services to be developed. This has been particularly apparent in the technology sector, where advances in areas similar to pall computing, artificial intelligence, and blockchain have enabled the development of new businesses and converted being diligence.
3. Innovation and technology also play an important part in reducing the walls to entry for entrepreneurs. For illustration, pall computing has enabled startups to pierce computing coffers without demanding to invest in precious structure, while online commerce has made it easier for small businesses to reach guests and contend with larger players.

The Impact of government programs and enterprise on fostering Invention and technology-driven entrepreneurship in India:

Government programs and enterprises play a critical part in fostering invention and technology-driven entrepreneurship in India. In recent times, the Indian government has taken several ways to produce a probative terrain for entrepreneurs, including the following:

Startup India: In 2016, the Indian government launched the Startup India action, which aims to promote entrepreneurship and invention in the country. The action provides a range of benefits to startups, including duty immunity, easier access to backing, and simplification of nonsupervisory processes.

Digital India: The Digital India action aims to transfigure India into a digitally empowered society and knowledge frugality. The action includes several programs to promote the relinquishment of digital technologies, similar to the development of broadband structure and the creation of digital knowledge programs.

Make in India: Make in India is a flagship action that aims to promote manufacturing in India and attract foreign investment. The action includes several measures to produce a probative terrain for entrepreneurs, similar to the simplification of nonsupervisory processes and the provision of impulses for businesses to set up operations in India.

Atal Innovation Mission: The Atal Innovation Mission is a government action that aims to promote invention and entrepreneurship among scholars, experimenters, and entrepreneurs. The action includes a range of programs, similar to incubation centers, tinkering labs, and invention challenges.

These enterprises have had a significant impact on fostering invention and technology-driven entrepreneurship in India. For illustration, the Startup India action has led to the creation of over 40,000 startups, while the Digital India action has helped to increase internet penetration and the relinquishment of digital technologies across the country.

Examines the government scheme for technology business and their effectiveness in promoting invention and technology relinquishment among entrepreneurs:

In this section, we will bandy some of government schemes for technology business and examine their effectiveness in achieving their pretensions.

Incipiency India:

Startup India is a flagship action launched by the Indian government in 2016. The program aims to promote entrepreneurship and invention by furnishing colorful benefits to startups, similar to duty immunity, easier access to the

backing, and simplification of nonsupervisory processes.

The program has been successful in creating mindfulness about entrepreneurship and encouraging further people to start their own businesses. According to the Department for Promotion of Industry and Internal Trade(DPIIT), the program has led to the creation of over 50,000 startups in India.

Atal Innovation Mission (AIM):

The Atal Innovation Mission was launched in 2016 to promote invention and entrepreneurship among scholars, experimenters, and entrepreneurs. The program includes several enterprises, similar to the Atal Tinkering Labs, Atal Incubation Centers, and Atal New India Challenges.

The program has been successful in creating a culture of invention and entrepreneurship among scholars and experimenters. The Atal Tinkering Labs have been set up in over 7,000 seminaries, and the program has helped to foster creativity and problem-working chops among scholars.

The Atal Incubation Centers have also been successful in supporting startups and helping them to gauge their businesses. The program has set up over 100 incubation centers across the country, which has supported over 2,500 startups.

Digital India: Digital India is an action launched by the Indian government in 2015 to transfigure India into a digitally empowered society and knowledge frugality. The program includes several enterprises, similar to the Bharat Net design, the Common Service Centers(CSC) scheme, and the-Kranti action. The program has been successful in promoting digital relinquishment and creating a probative ecosystem for startups. The Bharat Net design aims to connect all townlets in India with high-speed internet, which will help to increase digital access in pastoral areas.

Findings: The study highlights the following findings:

1. Innovation and technology relinquishment are appreciatively identified with entrepreneurship development in India. Entrepreneurs who borrow new technologies and introduce them are more likely to succeed in the long run.
2. Government programs and enterprises play a significant part in fostering invention and technology-driven entrepreneurship in India. Programs like

Startup India, Atal Innovation Mission, and Digital India have been successful in creating a probative ecosystem for startups and promoting invention and technology relinquishment among entrepreneurs.

3. Access to backing remains a major challenge for startups in India. While government enterprises like Startup India have simplified nonsupervisory processes and handed duty immunity to startups, further requirements to be done to ameliorate access to backing for entrepreneurs.
4. There's a need to support startups in sectors similar to husbandry, healthcare, and education. While the incipency ecosystem in India has largely concentrated on technology-grounded startups, there's a need to promote invention in other sectors as well.
5. The success of the incipency ecosystem in India depends on collaboration between colorful stakeholders, including the government, corporates, investors, and entrepreneurs.

Suggestion: There are several suggestions for the exploration paper on the part of invention and technology in entrepreneurship development in India. These include

1. Analysis of the impact of specific government enterprise While there's ample substantiation that government enterprises like Startup India, Atal Innovation Mission, and Digital India have been successful in promoting entrepreneurship and invention, there's a need to conduct a more detailed analysis of the impact of specific programs on the incipency ecosystem in India.
2. Examination of the part of technology clusters similar to Bangalore, Hyderabad, and Pune has played a significant part in promoting entrepreneurship and invention in India. still, there's a need to examine the specific factors that have contributed to the success of these clusters, as well as the challenges faced by entrepreneurs operating outside of these clusters.
3. Study of the impact of transnational collaborations India has surfaced as a mecca for transnational collaborations in the incipency ecosystem. Several transnational investors, accelerators, and incubators have set up operations in

India, furnishing startups with access to global networks and moxie. still, there's a need to examine the impact of these collaborations on the incipency ecosystem in India.

4. Disquisition of the part of education and training Entrepreneurship education and training are essential for promoting invention and technology relinquishment among entrepreneurs. There's a need to examine the impact of education and training programs on the incipency ecosystem in India.
5. The disquisition of the part of social entrepreneurship has surfaced as an important motorist of invention and technology relinquishment in India. There's a need to examine the specific challenges faced by social entrepreneurs.

Conclusion: In conclusion, the exploration paper highlights the critical significance of invention and technology relinquishment for promoting entrepreneurship and profitable growth in the country. The study reveals that government programs and enterprises have played a significant part in fostering invention and technology-driven entrepreneurship in India. Programs similar to Startup India, Atal Innovation Mission, and Digital India have been successful in creating a probative ecosystem for startups and promoting invention and technology relinquishment among entrepreneurs.

Still, the study also highlights some of the challenges faced by startups in India, including limited access to backing and a lack of support for startups operating outside of technology clusters. The exploration emphasizes the need for increased collaboration between colorful stakeholders, including the government, corporates, investors, and entrepreneurs, to produce a sustainable and inclusive incipency ecosystem in India.

The study suggests several areas for unborn exploration, including an analysis of the impact of specific government enterprises, the part of technology clusters, the impact of transnational collaborations, the part of education and training, and the disquisition of social entrepreneurship.

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Internet of Things (IOT) in Self-Driving Cars: Enhancing Autonomy through Connectivity

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Abstract

The rapid advancement of technology has propelled self-driving cars to the forefront of transportation innovation. This research paper delves into the integration of the Internet of Things (IOT) in the domain of autonomous vehicles, exploring how IOT technologies enhance the capabilities, safety, and efficiency of self-driving cars. IoT's ability to seamlessly connect devices, collect and share data, and enable real-time communication forms the foundation for the evolution of autonomous driving.

This paper examines specific IOT technologies driving the progress of self-driving cars, including sensor fusion, vehicle-to-everything (V2X) communication, cloud computing, machine learning, and cybersecurity solutions. Sensor fusion amalgamates data from diverse sensors, allowing self-driving cars to create a comprehensive perception of their surroundings. V2X communication establishes a dynamic information exchange between vehicles, infrastructure, and pedestrians, fostering a safer and more efficient traffic ecosystem.

The advantages of IOT -based self-driving cars are manifold. Safety improvements, traffic efficiency enhancements, reduced environmental impact, and increased accessibility are some of the key benefits. These vehicles have the potential to reshape urban mobility, paving the way for shared autonomous fleets and optimizing transportation systems.

Looking forward, the paper explores potential future developments in the field. The advent of 5G networks and edge computing promises to elevate connectivity and real-time decision-making capabilities. The evolution of AI and machine learning will continue to fine-tune self-driving systems' ability to handle complex scenarios.

Key words: IOT, self-driving cars, vehicle-to-everything

Introduction: The evolution of transportation has entered a transformative phase with the emergence of self-driving cars. These vehicles, equipped with cutting-edge technologies, have the potential to revolutionize the way we commute, offering enhanced safety, efficiency, and accessibility. At the heart of this evolution lies the integration of the Internet of Things (IOT), a network of interconnected devices that communicate and share data, providing a foundation for autonomous driving systems to thrive.

The concept of self-driving cars, once confined to science fiction, is now a tangible reality. These vehicles, equipped with a myriad of sensors and artificial intelligence algorithms, can navigate complex urban

environments, make real-time decisions, and even interact with other vehicles and infrastructure components. The driving force behind the seamless functionality of these vehicles is IOT, which acts as a catalyst for connectivity, data exchange, and intelligent decision-making.

In this research paper, we embark on a journey to explore the intricate relationship between IOT and self-driving cars. The convergence of these two domains holds immense promise for revolutionizing the automotive landscape, but it also presents a host of challenges that demand careful consideration. The subsequent sections delve into the specific technologies that underscore the collaboration between IOT and self-driving cars, the challenges that must be

addressed, the benefits that can be reaped, and the potential future developments that await on the horizon.

Problem Statement: The rapid development of self-driving cars, fueled by advancements in artificial intelligence and sensor technologies, is poised to redefine the transportation landscape. The primary problem at hand is to explore how IOT technologies can be seamlessly integrated into self-driving cars to enable a comprehensive and reliable autonomous driving experience. The overarching problem is to strike a balance between realizing the potential of IOT technologies in self-driving cars while mitigating the associated challenges and uncertainties. Addressing these challenges will pave the way for the successful deployment of autonomous vehicles that can navigate complex urban environments, improve transportation efficiency, and redefine the mobility experience.

Research Methodology

1. **Research Design:** The research design will be exploratory and descriptive in nature, aiming to delve into the integration of IOT technologies within the domain of self-driving cars. The study will involve a mix of qualitative and quantitative analysis, utilizing both primary and secondary sources of information.
2. **Data Collection:**
Primary Data: Gathered insights on technological advancements, challenges, and potential solutions. *Secondary Data:* Collected information from scholarly articles, research papers, industry reports, and relevant online resources to build a comprehensive understanding of IOT's role in self-driving cars.
3. **Data Analysis:** Analyzed qualitative data from interviews and focus groups using thematic analysis to identify recurring patterns, challenges, and emerging trends in the integration of IOT in self-driving cars.

Objectives:

1. To Investigate IOT Technologies in Self-Driving Cars
2. To Assess Challenges, Benefits, and Future Developments

Significance of the Study: The study on IOT -based self-driving cars holds paramount significance in the context of today's rapidly evolving transportation landscape. As

technological advancements and societal demands intersect, this research provides invaluable insights that resonate across academia, industry, and policy-making spheres. The significance of this study reverberates through research communities, and society at large. By shedding light on the complex interplay of IOT and self-driving cars, this research offers actionable insights that shape the trajectory of autonomous vehicles, cultivating a safer, more connected, and sustainable future of transportation.

Investigating IOT technologies in self-driving cars

Investigating IOT technologies in self-driving cars involves delving into the specific ways in which Internet of Things (IOT) components and principles are integrated into the functioning of autonomous vehicles. Here's a breakdown of the key aspects to explore within this objective:

Sensor Fusion and Data Integration: LIDAR, radar, cameras, and ultrasonic sensors, are utilized in self-driving cars. Sensor fusion techniques that combine data from different sensors to create a comprehensive and accurate perception of the vehicle's environment. IOT facilitates the integration of sensor data, enabling real-time updates and adjustments to the vehicle's surroundings.

V2X Communication: The principles of vehicle-to-everything (V2X) communication, including vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), vehicle-to-pedestrian (V2P), and vehicle-to-network (V2N) communication. IOT protocols and wireless technologies facilitate communication between self-driving cars and other vehicles, traffic lights, road signs, pedestrians, and cloud-based networks. The role of V2X in enhancing safety, traffic efficiency, and overall situational awareness.

Cloud Computing and Data Processing:

IOT enables self-driving cars to upload sensor data and other information to cloud computing platforms. The benefits of cloud-based data processing, including real-time analysis, mapping updates, and predictive maintenance. Infrastructure supports over-the-air software updates and data-driven decision-making for autonomous driving systems.

Machine Learning and AI Integration:

IOT -driven data collection supports machine learning and artificial intelligence algorithms in self-driving cars. AI models are

trained using large datasets to improve object recognition, decision-making, and adaptive driving behavior. The continuous learning and adaptation in enhancing the performance of self-driving systems.

Cyber security Solutions: The vulnerabilities and cyber security risks associated with the increased connectivity in self-driving cars. IOT -driven cyber security solutions, such as secure communication protocols, intrusion detection systems, and encryption mechanisms. The strategies employed to protect self-driving cars from hacking, malware, and unauthorized access.

By thoroughly investigating these aspects, researchers can gain a comprehensive understanding of how IOT technologies are integrated into self-driving cars, enabling them to function autonomously and make informed decisions in complex real-world scenarios. This exploration sets the stage for addressing the challenges, benefits, and potential future developments in the realm of IOT -based self-driving vehicles.

Assessing the challenges, benefits, and future developments in the context of IOT -based self-driving cars

Assessing the challenges, benefits, and future developments in the context of IOT -based self-driving cars involves a comprehensive examination of the various facets that shape the evolution of autonomous vehicles. Here's an overview of each aspect:

Challenges:

1. Safety and Reliability:

The challenges related to ensuring the safety and reliability of autonomous systems in real-world conditions. The potential risks associated with sensor inaccuracies, system failures, and unexpected scenarios that can impact the safe operation of self-driving cars.

2. Data Privacy and Security:

The challenges of maintaining data privacy in IOT -driven self-driving cars, considering the sensitive nature of personal and location data. Potential security vulnerabilities that could lead to data breaches, unauthorized access, and malicious attacks.

3. Regulation and Legal Frameworks:

The regulatory challenges associated with autonomous vehicles, including legal liability, insurance, and compliance with traffic laws. Investigate the need for international standards and regulatory guidelines to

ensure safe deployment and operation of self-driving cars.

4. Human Interaction and Acceptance:

Analyze the challenges of human interaction in mixed autonomous-human traffic scenarios, including communication between self-driving cars and pedestrians or human drivers. The societal concerns related to job displacement, ethical dilemmas, and public acceptance of autonomous vehicles.

Benefits:

1. Safety Improvements:

The potential for IOT -enabled self-driving cars to significantly reduce accidents caused by human error and improve road safety. Real-time data sharing and predictive analysis contribute to early hazard detection and collision avoidance.

2. Traffic Efficiency and Environmental Impact:

IOT -based self-driving cars can optimize traffic flow, reduce congestion, and improve overall traffic efficiency. The potential environmental benefits stemming from optimized driving patterns and reduced fuel consumption.

3. Enhanced Mobility and Accessibility:

The potential for self-driving cars to provide enhanced mobility options for people with disabilities, the elderly, and those without driving privileges. The role of IOT in enabling more inclusive and accessible transportation solutions.

Future Developments:

1. 5G Connectivity and Edge Computing:

The impact of 5G networks on the capabilities of IOT -based self-driving cars, enabling faster communication and real-time data processing. The potential of edge computing to reduce latency by processing data closer to the source, enhancing real-time decision-making.

2. Advanced AI and Machine Learning:

Continued advancements in AI and machine learning will enhance the ability of self-driving cars to handle complex scenarios and adapt to changing environments. The potential of reinforcement learning and unsupervised learning to improve autonomous driving behavior.

3. Ethical Decision-Making and Human-Machine Interaction:

The challenges and potential solutions for programming ethical decision-making into self-driving cars during critical scenarios. IOT technologies can facilitate seamless

human-machine interaction, including handovers between autonomous and human driving.

By addressing these challenges, recognizing the benefits, and forecasting future developments, researchers and stakeholders can better navigate the complexities of integrating IOT technologies into self-driving cars, shaping the future of mobility.

Conclusion: The integration of Internet of Things (IOT) technologies within the realm of self-driving cars has emerged as a transformative force that holds the potential to reshape the future of transportation. This research paper embarked on a comprehensive journey to investigate the intricate interplay between IOT and autonomous vehicles, delving into technologies, challenges, benefits, and future developments that collectively define this evolving landscape.

From the exploration of sensor fusion techniques to the examination of vehicle-to-everything (V2X) communication protocols. While challenges exist, the benefits offered by IOT -based self-driving cars are resoundingly promising. The potential for enhanced safety through reduced human error, streamlined traffic flows, decreased environmental impact, and increased accessibility underscores the positive transformation these vehicles can bring to urban mobility.

As the paper looked ahead, it envisioned a horizon brimming with possibilities. The rollout of 5G networks, advancements in edge computing, and the perpetual evolution of artificial intelligence were identified as key catalysts that will amplify the capabilities of autonomous vehicles. Ethical decision-making and human-machine interaction were recognized as frontiers where collaboration between IOT and self-driving cars will drive innovative solutions.

In conclusion, the symbiotic relationship between IOT and self-driving cars is shaping an era of mobility that combines technological innovation, safety enhancements, and societal transformation. The research unveiled a multifaceted landscape, illuminated by challenges that beckon solutions and benefits that promise a brighter tomorrow. By embracing these findings, stakeholders across industries can steer the trajectory of IOT -based self-driving

cars toward a future where autonomous vehicles navigate roads with intelligence, efficiency, and utmost safety. In this journey, technological innovation merges with human ingenuity, propelling us toward an era of mobility that redefines the possible.

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ಪುಟ್ಟ ಕವಿತೆಗಳ ದೊಡ್ಡ ಅರ್ಥವಂತಿಕೆಯ ಗಾಳಿಯ ಮಡಿಲು ಮತ್ತು ಮುಕ್ತ ಹಾಗೂ ಘರ್ಷಣಾತ್ಮಕ
ಹಾದಿಯ ಇಂತಿ ನದಿ

ತೊಪ್ಪಲ ಕೆ ಮಲ್ಲಿಕಾರ್ಜುನಗೌಡ

ಕನ್ನಡ ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕ, ಸರ್ಕಾರಿ ಪ್ರಥಮ ದರ್ಜೆ ಮಹಿಳಾ ಕಾಲೇಜು, ದಾವಣಗೆರೆ-577004

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"ಗೂಳಿ ನಡೆದ ಹೆಜ್ಜೆ ತೋರುವುದಲ್ಲದೆ ಗಾಳಿಯ ಹೆಜ್ಜೆ ತೋರುವುದೆ"

ಜಾಳುಗಳೊಳಗುಗಾಣಿಸುವುದಲ್ಲದೆ ತತ್ವಶೀಲನೊಳಗೆ ಕಣ್ಣಿರಾರು"

ರತ್ನಾಕರವರ್ಣಿ (ಭರತೇಶ ವೈಭವ)

'ಗೂಳಿ ನಡೆದ ಹೆಜ್ಜೆ ತೋರುವುದಲ್ಲದೆ ಗಾಳಿಯ ಹೆಜ್ಜೆ ತೋರುವುದೆ' ಎಂದು ಕವಿ ರತ್ನಾಕರವರ್ಣಿ ಕೇಳುತ್ತಾನೆ. ಆದರೆ ಕಲೆ ಸಾಹಿತ್ಯಕ್ಕೆ ಗಾಳಿಯ ಹೆಜ್ಜೆ ತೋರಲು, ಹಾಗೆಯೇ ಬೆಳಗಿನೊಳಗಣ ಬೆಳಕ ಕಂಡು ಕಾಣಿಸಲು ಸಾಧ್ಯವಿದೆ. ಇದು ನೆನಪಾಗಿದ್ದು ಕವಿ ಸಿದ್ಧ ಸತ್ಯಣ್ಣವರ 'ಗಾಳಿಯ ಮಡಿಲು' ಎಂಬ ಸಂಕಲನದಲ್ಲಿರುವ ಕವಿತೆಗಳನ್ನು ಓದುತ್ತಿರುವಾಗ.

ಗಾಳಿ, ಬೆಳಕು, ಗಿಡ, ಎಲೆ, ಹೂವು, ನದಿ, ದಡ, ಕಡಲು ಹೀಗೆ ಪ್ರಕೃತಿಯ ನಾನಾ ಸಲಕರಣೆ ಸಂಗತಿಗಳನ್ನು: ಮನುಷ್ಯ ಪ್ರಕೃತಿಯ, ಅದರ ತಳಮಳಗಳ ಹಿಡಿದಿಡಲು ಕವಿ ಭಾಷೆಯ ಮೂಲಕ ಇಲ್ಲಿ ಬಳಸುತ್ತಾನೆ. 'ಗಾಳಿಯ ಮಡಿಲು' ಎಂಬ ಕವಿತೆಯೇ ಇದಕ್ಕೊಂದು ನಿದರ್ಶನ.

ನೆಲದ ಮೇಲೆ ಮೋಹ

ಮುಡಿ ಎಲೆಯೊಂದು

ಗಾಳಿಯನು ಬೇಡಿ ನೆಲವನ್ನಿತ್ತು- ಎಂಬ

ಬಿಡುಗಡೆಯ ಭಾವ ಅದೇ ಮರದ ಚಿಗುರಲೆ, ಹೂಗಳಲ್ಲಿ ಸಾವಿನ ಭೀತಿ ಸೃಷ್ಟಿಸಿ, ನೆಲ ಮತ್ತು ಎಲೆಯ ಮುತ್ತಿನ ಮೋಹದಲ್ಲಿ ಕೊನೆಯಾಗುತ್ತದೆ. ಇಲ್ಲಿ ಕವಿ ಗಾಳಿಗೆ ನೋಡುವ ಕಣ್ಣು ಸೃಷ್ಟಿಸಿದ್ದಾನೆ ಮತ್ತು ಕರುಣೆಯ ಹೃದಯವಿಟ್ಟಿದ್ದಾನೆ. ನಿತ್ಯ ಜರುಗಬಹುದಾದ ಸಣ್ಣ ಸಂಗತಿಯೊಂದು ಲೋಕಾಂತವಾಗುವ ಬೆರಗು ಈ ಕವಿತೆಗಿದೆ. ಇಲ್ಲಿನ ಗಾಳಿ ಈ ಕವಿತೆಗಷ್ಟೇ ವಿರಮಿಸಿಲ್ಲ. ಮುಂದಿನ ಕೆಲ ಕವಿತೆಗಳಲ್ಲೂ ಪ್ರತಿಪಂದಿಸುತ್ತದೆ, ಪ್ರತಿಫಲಿಸುತ್ತದೆ. 'ಗುಟ್ಟು ಜೀವ' ಎಂಬ ಮತ್ತೊಂದು ಕವಿತೆಯಲ್ಲಿಯೂ ಗಾಳಿ ಮತ್ತು ಎಲೆಗಳ ಸಂಬಂಧದ ಸಾತ್ವತವನ್ನು ಕಾಣಬಹುದು. ಇಲ್ಲಿನದು ಎಲೆಗಳಿಗೆ ಸಲ್ಲಾಪದ ಹುಚ್ಚು ಹಿಡಿಸುತ್ತಾ ತಾನು ಕಿಸಕ್ಕನೆ ನಕ್ಕು ಮುಸುಗುವಂತಹ ತುಂಟಗಾಳಿ. ಮತ್ತೊಂದು ಕವಿತೆಯ ಹೆಸರೂ 'ಗಾಳಿ'ಯೇ.

ಮತ್ತು ಮಿಲನ ಯಾವುದು ಬೇಡ

ಎದುರುಬದುರಾದಾಗ

ಎಳೆದು ಹೊರ ಬಿಟ್ಟ ಇಬ್ಬರ ಉಸಿರು

ಒಮ್ಮೆ ಆಮದು

ಮತ್ತೊಮ್ಮೆ ರಪ್ಪು

ಪ್ರೀತಿಯಿಂದ ಹಿಡಿದರೂ

ಕೈಯಲಿ ಅರಳಲಾರದ ಮೊಗ್ಗಿಗೆ

ಉಸಿರು ಜನ್ಮ ನೀಡಬಲ್ಲದು!

'ಗಾಳಿಯ ಮಡಿಲು' ಕವಿತೆಯಲ್ಲಿ ಮುಡಿ ಎಲೆಗೆ ಮರದಿಂದ ಬಿಡುಗಡೆ ತೋರಿದ ಗಾಳಿ, ಈ ಕವಿತೆಯಲ್ಲಿ ಸಖ ಸಖಿಯರ ಪ್ರೇಮಕ್ಕೆ ಜನ್ಮ ನೀಡುವಂಥದ್ದು. ಹೀಗೆ ಗಾಳಿಗಿರುವ ಸಿದ್ಧ ಮಾದರಿಯ ಅರ್ಥಗಳಾದ ಉಸಿರು, ಪ್ರಾಣ ಎಂಬುದನ್ನು ಈ ಸಂಕಲನದ ಕವಿತೆಗಳು ಬಿಡುಗಡೆಯ ಕರಣವಾಗಿಯೂ ಪಲ್ಲಟಿಸಿವೆ. 'ಉಸಿರಾಡು ಜೋರಾಗಿ/ ಸುಟ್ಟ ದೇಹದ ಬೂದಿ ಗೋರಿಯ ಸಂಧಿಸಲು' ಎಂಬ ಸಾಲುಗಳಂತೂ ಕೊನೆಗಾಲದ ತೀವ್ರತೆಯನ್ನು ಬದುಕಿನ ಮೊದಲೆಂಬಂತೆ ಎದೆಗೆ ಘಾತಿಸುತ್ತವೆ.

ಇನ್ನು ಬೆಳಕಿನ ವಿಷಯಕ್ಕೆ ಬಂದರೆ ಅದನ್ನೂ ಈ ಸಂಕಲನದ ಕವಿತೆಗಳು ವಿಭಿನ್ನ ಅರ್ಥ ಛಾಯೆಯಲ್ಲಿ ಬಳಸಿವೆ. ಬೆಂಕಿ ಬೆಳಕಾಗಿ, ಬೆಳಕು ಬೆಂಕಿಯಾಗಿ. ಅಷ್ಟೇ ಏಕೆ ಈ ಸೃಷ್ಟಿಗೆ ಅವಶ್ಯವಿರುವ ಈ ಗಾಳಿ ಬೆಳಕು ಮಾನವ ಕ್ರಿಯೆಗಳನ್ನಾರೋಪಿಸಿಕೊಂಡು ಒಂದು ವಿಶಿಷ್ಟ ಅನುಭವ ಸೌಂದರ್ಯವನ್ನು ಸೃಷ್ಟಿಸಲು ನಿಯುಕ್ತವಾದಂತಿದೆ. 'ಬಾಗಿಲ ಬಳಿ' ಕವಿತೆಯನ್ನೇ ನೋಡಿ

ಕೋಣೆಯಾಚೆ ಬಿದ್ದ ಬೆಳಕಿನ ಚುಂಗು
ಬಾಗಿಲಿಗಿದ್ದ ಕಿಂಡಿಗಳನೇಕೆ ಅತಿಕ್ರಮಿಸಬೇಕು?

ಬಾಗಿಲು ತೆರೆದರೆ

ಅವಳು ನಿಂತಿದ್ದಳು

ಅದಂತಹ ಹಗಲು!..... ಹೀಗೆ ಅವಳೇ ಬೆಳಕು ಅಥವಾ ಬೆಳಕೇ ಅವಳಾದಂತಿದೆ. 'ಮನೆ ತುಂಬ ಕಪ್ಪು' ಎಂಬ ಕವಿತೆಯಲ್ಲಿ ಈ ಬೆಳಕು ವಿಸ್ಮಯದೋರುವ ಬದಲು ಅವನ ನೆನಪೆಂಬ ಕಪ್ಪು ಕಲೆಗಳ ತೋರಿಸಿ ಬಾಧಿಸುತ್ತದೆ. ಒಂದು ಮತ್ತೊಂದರೊಳಗೆ ಪ್ರತಿಫಲಿಸಿ ವೈದೃಶ್ಯ ಕಟ್ಟುವ ಪರಿಯಿದು. ಕವಿತೆಗಳಿಗಿಂತೂ ಈ ವೈದೃಶ್ಯಗಳೇ ಜೀವಾಳ. 'ಚೂರಿಯ ಮೈ' ಎಂಬ ಕವಿತೆಯೂ ಇಂಥದನ್ನೇ ದರ್ಶಿಸುತ್ತದೆ 'ಕತ್ತಲ ಬೀದಿಯಲೊಂದು ನಡುರಾತ್ರಿ/ ಒಬ್ಬಂಟಿ ಬೆಳಕು ಅತ್ತ ದಿನ ಬೆಳದಿಂಗಳೂ ಜನಿಸಿತು' ಎಂಬಲ್ಲಿ ಮಾನವ ಹೃದಯದ ದುಃಖ ಬೆಳಕಾಗಿ ಅತ್ತು ಬೆಳದಿಂಗಳ ಘನವಾಗುತ್ತದೆ. ನೋವುಗಳ ಹಡೆದು ಕೀವೊಸರುವ ದೈವ, ಧರ್ಮಗಳ ಹಿಂಸಾತ್ಮಕ ಮುಖ ಕಾಣುವುದು ಬೆಳಕಿನಲ್ಲಿಯೇ. 'ಬೆಳಕು ಮತ್ತು ಗಾಯ' ಕವಿತೆಯಲ್ಲಿ ಈ ಗಾಯಗಳಿಗೆ ಮುಲಾಮು ಹುಡುಕುವ ಪ್ರಶ್ನೆಗೆ ಉತ್ತರ ದೊರಕದ ವಿಷಾದ ಹೊಳೆದು ನಿಡುಸುಯ್ಯುತ್ತದೆ. ಉದರದ ಹೂ ತೊಟ್ಟುಗಳಲ್ಲೇ ಅರಳಿದ ಹೊಸ ಹೂಗಳು ಮುಲಾಮಾಗದ ಸ್ಥಿತಿಯಲ್ಲೇ ಮತ್ತೆ ಉದರಬಹುದೇನೋ!? ತೀರಾ ವೈಯಕ್ತಿಕವೆನ್ನಬಹುದಾದ ನೋವನ್ನು ಮತ್ತೊಬ್ಬರಿಗೆ ದಾಟಿಸುವ 'ಬೆಳಕು ಸಿಟ್ಟಾಗಬಹುದು' ಎಂಬ ಕವಿತೆ ಆರಂಭಕ್ಕೆ ಅನ್ಯಾಯವೆನಗಿದೆ ಅಂತ್ಯದ ನೂರಾರು ದಾರಿಗಳ ಬಗ್ಗೆ ಆಕ್ರೋಶದಾಳಿ 'ಕಂಡ ಬೆಳಕುಗಳಲ್ಲಿ ಕೆಲವು ರೋಗಗ್ರಸ್ತ ಎಂಬ ಶಂಕೆ' ಹರಿಬಿಡುತ್ತದೆ. 'ರಾತ್ರಿಗೆ ಕನಿಕರವಿಲ್ಲ' ಹೆಸರಿನ ಕವಿತೆಯಲ್ಲಿ ಬೆಳಕಿನ ಪಾತ್ರ ವಕ್ರ ನಗುವಿನ ಗೆಳೆಯನದು. ಕತ್ತಲಿಗೆ ಅವಿತಿಟ್ಟುಕೊಳ್ಳಲೂ ಜಾಗ ಕೊಡದ ಸರ್ವಾಧಿಕಾರಿ ಧೋರಣೆಯದು. ತುತ್ತಿನ ಬದಲಾಗಿ ಹಿಡಿ ಸಮಾಧಾನ ಬೇಡಿದರೂ ದೀಪ ಬೆಳಕಾಗುವ ಬದಲು ಬೆಂಕಿಯಾಗುತ್ತದೆ 'ಚಿತ್ರೆಯ ಅವಶೇಷ' ವೆಂಬ ಇನ್ನೊಂದು ಕವಿತೆಯಲ್ಲಿ. ಆದರೂ ಕಾವ್ಯ ನಿರೂಪಕನ ಮನಸ್ಸು ದೀಪದ ಬೆಳಕನ್ನೇ ನಿರುಹಿಸುತ್ತದೆ.

ಹೀಗೆ ಗಾಳಿ ಬೆಳಕು ಜೊತೆಗೆ ಹಕ್ಕಿ ಕೂಗು (ಶಬ್ದ) ಬೆರೆತ 'ಗುಡುಕು ಜೀವ' ವೆಂಬ ಕವಿತೆ 'ಗಾಳಿಯ ಮಡಿಲು' ಕವಿತೆಯಲ್ಲಿ ನೆಲವ ಮೋಹಿಸಿ ಬಿದ್ದ ಎಲೆಯ ಪುನಃ ಕರೆತಂದು ಹಕ್ಕಿ ಕೂಗಿನಲ್ಲಿ ಅವಳನೇ ಕರೆದು ಗುಡುಕು ಜೀವ ನೀಡುತ್ತದೆ. ಅಂದರೆ ಈ ಗಾಳಿ ಬೆಳಕಿನ ಸರಣಿ ರೂಪಕಗಳು ಭಿನ್ನ ಕವಿತೆಗಳಲ್ಲಿ ಪರಸ್ಪರ ಸಂವಾದಿಸುತ್ತ, ಪ್ರತಿಫಲಿಸುತ್ತ ಮಾನವೀಯತೆಯ, ಹಿಡಿ ಪ್ರೀತಿಯ ಹುಡುಕಾಟಕ್ಕೆ ಹಾತೊರೆದಿವೆ. ಈ ಪುಟ್ಟ ಪುಟ್ಟ ಕವಿತೆಗಳ ಬದುಕಿನ ದೊಡ್ಡ ಅರ್ಥವಂತಿಕೆಯಿದು.

ಇದಕ್ಕೆ 'ನಕ್ಷತ್ರ ಭ್ರೂಣ' ಕವಿತೆಯ ಈ ಸಾಲುಗಳೇ ಸಾಕ್ಷಿ :

ಬಂಜೆ ಎನುವ ಬಲ್ಲುಗಳಿಗೆ

ಕತ್ತಲು ಸನಿಹವಾಗುವ ತನಕ

ಮೊಲೆಗಳು ಬಿಗಿದ ನೋವೊಟ್ಟಿಗೆ

ತೊಟ್ಟಿಕ್ಕುವ ಹಾಲು ಸಂತೈಸಿಕೊಂಡೇ

ಬೆಳಕು ಕಾಯುವುದಿಲ್ಲವೇ?

ಕಾಯುತ್ತಲೇ ನೋಡುತ್ತಿರು

ಕತ್ತಲ ಒಡಲೊಳಗೆ,

ನಕ್ಷತ್ರ ಭ್ರೂಣಗಳು

ಚಿಗುರಿಯೇ ಚಿಗುರುತ್ತವೆ.

ವಿಜಯಕಾಂತ ಪಾಟೀಲರ ' ಇಂತಿ ನದಿ' ಸಂಕಲನದಲ್ಲಿನ ಕವಿತೆಗಳನ್ನು ಓದಿದೆ. ಪಾಟೀಲರದು ಲೋಕವನ್ನು ಒಳಬಿಟ್ಟುಕೊಳ್ಳುವಲ್ಲಿ, ಅದಕ್ಕೆ ಸ್ಪಂದಿಸುವ ಕ್ರಮದಲ್ಲಿ ಮುಕ್ತ ಹಾಗೂ ಘರ್ಷಣಾತ್ಮಕ ಹಾದಿ.ಹಾಗೆಯೇ ಮಾನವೀಯ ಅಂತಃಕರಣದಿಂದ ಸುತ್ತಣ ಸಂಗತಿಗಳನ್ನು ಪರಿಭಾವಿಸುವ ಮತ್ತು ಪಡಿಮಿಡಿದ ಪ್ರಗತಿಪರ ಮನಸ್ಸು ಅವರದು. ಇದು ಈ ಸಂಕಲನದ ಬಹುತೇಕ ಕವಿತೆಗಳನ್ನು ಓದಿ ಅನ್ನಿಸಿದ್ದು.

'ಇಂತಿ ನದಿ' ಎಂಬ ಕವಿತೆ ನದಿಗಳ ನುಂಗಿ ನೋಡುವ ಅವುಗಳ ಅಸಹಾಯಕವಾಗಿಸಿದ ಸಮುದ್ರದ ಜೊತೆಗೆ ಜಗಳಕ್ಕೆ ನಿಂತ ನದಿಯೊಂದರ ಪ್ರಸಂಗದ್ದು. ಚಲನಶೀಲವಾದದ್ದನ್ನೆಲ್ಲ ನುಂಗಿ ತನ್ನಿಂದ ಹಸಿರು ಸೃಷ್ಟಿಸಲಾಗದ ಕ್ರೌರ್ಯದ ಜೊತೆಗೆ ಸ್ವಗತದ ಮಾದರಿಯಲ್ಲಿ ನಡೆಸುವ ಜೀವಪರ ಜಗಳವನ್ನು ನಾಟಕೀಯಗೊಳಿಸುವ ಈ ಕವಿತೆ ನಿರ್ಲಕ್ಷ್ಯಕ್ಕೀಡಾದ ಮಾನವೀಯತೆಯ ಬಗೆಗಿನ ನೋವನ್ನೂ ಒಳಗಿಟ್ಟುಕೊಂಡಿದೆ.

ಮನುಷ್ಯನ ಕ್ರೌರ್ಯ ಸೋಗಲಾಡಿತನದ ಮುಸುಕಿನಲ್ಲಿ ಮರೆಯಾಗಿರುತ್ತದೆ. ಅದು ಬೇಟೆಯ ಅವಕಾಶಕ್ಕಾಗಿ ಕಾದು ಕುಳಿತಿರುತ್ತದೆ. ಮಾನವೀಯ ಸೂಕ್ಷ್ಮರಹಿತವಾದ ಈ ಇದು ದುರ್ಬಲ, ಕೋಮಲವಾದದ್ದರ ಮೇಲೆ ಆಕ್ರಮಣವೆಸಗಲು ನಿರಂತರ ಕಣ್ಣಿಟ್ಟಿರುತ್ತದೆ. ಇಂಥದೊಂದು ದಾರುಣ

ಪ್ರಸಂಗವನ್ನು ಪ್ರಾಣಿಗಳ ರೂಪಕದ ಮೂಲಕ ವಿಜಯಕಾಂತ ಪಾಟೀಲರು ' ಹೌದೋ ಅಲ್ಲವೋ' ಎಂಬ ಕವಿತೆಯಲ್ಲಿ ಎದೆ ತಾಗುವಂತೆ ಸರಳಾತಿಸರಳ ಭಾಷೆಯಲ್ಲಿ ಮುಂದಿಡುತ್ತಾರೆ. ಪ್ರಕೃತಿಯಲ್ಲಿ ಮಾನವಶ್ರೇಷ್ಠ ಅಹಂಕಾರದಿಂದ ಜರುಗುವ ಈ ಕ್ರೌರ್ಯ ಸಮಾಜದಲ್ಲಿ ಕುಲ,ಜಾತಿ,ಅಧಿಕಾರ,ಧರ್ಮ ಶ್ರೇಷ್ಠತೆಯ ಅಹಮ್ಮಿಕೆಗಳಿಂದ ನಿತ್ಯ ನಡೆಯುವ ಬೇಟೆಗಳನ್ನು ದ್ದನಿಸುತ್ತದೆ. ಹಾಗೆಯೇ ದುರಾಸೆಯ ಫಲದಿಂದ ಹುಟ್ಟಬಹುದಾದ ನಶ್ವರತೆಯನ್ನು ಹೊಳೆಯಿಸುತ್ತದೆ.

'ದಾರಿ ಬಿಟ್ಟ ಮಾತು' ಎನ್ನುವ ಮತ್ತೊಂದು ಕವಿತೆ ಕೂಡ ಸಮಕಾಲೀನತೆಗೆ ಪ್ರತಿಸ್ಪಂದಿಸಿದ್ದು. ಈ ಕವಿತೆ ನಿರ್ಲಿಪ್ತ ಮನೋಧರ್ಮದವರ ನಿಲುವುಗಳನ್ನು ಟೀಕಿಸಿ,ದುಗುಡಗೊಂಡು, ಸಿಡಿಮಿಡಿಯ ಮನೋಧರ್ಮದಲ್ಲಿ ಸಾಗುತ್ತಲೇ ಮಾನವ ಸಮಾಜದ ಐಕ್ಯತೆಯನ್ನು ಕೇವಲ ಮಾತಿನ ತೆವಲಾಗಿಸಿಕೊಂಡವರನ್ನು

"ಎಣ್ಣೆ ಹಾಕದೇ ' ಹಚ್ಚೇವು..'/ ಎಂದು ದೀಪ ಹಿಡಿದು ಕುಣಿದದ್ದು/ಇದ್ಯಾವ ಒಂದೇ?

ಇದ್ಯಾವ ದಂಧೆ?"

ಎಂದು ತರಾಟೆಗೂ ತೆಗೆದುಕೊಳ್ಳುತ್ತದೆ.

ಪ್ರಜಾಸತ್ತೆಯ ಬಹು ಮುಖ್ಯ ಭಾಗವಾದ ಜನಪ್ರತಿನಿಧಿಗಳು ತಮ್ಮ ನಿರ್ಲಿಪ್ತತನದ ಪರಮಾವಧಿಯಿಂದ ಜೈಲಪಾಲಾಗುತ್ತ ಪ್ರಜಾಪ್ರಭುತ್ವ ವ್ಯವಸ್ಥೆಗೆ ಕಂಟಕಪ್ರಾಯರಾಗಿರುವುದರ ಬಗ್ಗೆ ಅಸಹನೆಯನ್ನು ' ಕವಿ, ಕನಸು ಮತ್ತೆ ಅಧಿಕಾರ' ಎಂಬ ಕವಿತೆಯಲ್ಲಿ ಕಾಣಬಹುದು.ಈ ಅವ್ಯವಸ್ಥೆಯನ್ನು ಸರಿಪಡಿಸಲು " ಕವಿಗಳು ಬರುವರು ದಾರಿ ಬಿಡಿ/ಕವಿಗಳ ಕೈಯಿಗೆ ರಾಜ್ಯ ಕೊಡಿ" ಎಂಬಂತಹ ಸಾಲನ್ನು ಕವಿತೆಯ ನಾಯಕ (ಆತನೂ ಕವಿಯೇ) ತಿರುಚಿಕೊಂಡು ಓದಿದ ಭಾಸವಾಗಿ ಮತ್ತಷ್ಟೂ ಗಲಿಬಿಲಿಗೊಳ್ಳುತ್ತಾನೆ. ಕನಸು ಕಾಣಲು ಸದಾ ಬಯಸುವ ಕವಿಗಳು ರಾಜ್ಯಾಧಿಕಾರ ನಡೆಸುತ್ತಾ ಬೆಳಕನ್ನೇ ಮರೆಮಾಚಿಬಿಟ್ಟಾರೆಂಬ ಆತಂಕ ಕವಿದ ಆತ ಕವಿತೆಯ ಸಹವಾಸವನ್ನೇ ತೊರೆದು ದಿಕ್ಕುಗಾಣದಾಗುತ್ತಾನೆ. ಜನಗಳ ಪಾಲ್ಗೊಳ್ಳುವಿಕೆಯಿಂದ, ಅಭಿಪ್ರಾಯಗಳಿಂದ ನಿತ್ಯವೂ ರೂಪು ತಳೆದ ಪ್ರಜಾಪ್ರಭುತ್ವ ಪಾಳೇಗಾರಿಕೆ ಮನೋಧರ್ಮದ ಜನನಾಯಕರಿಂದ ಕುಸಿದುಹೋಗುತ್ತಿರುವುದರ ಬಗೆಗಿನ ದಿಗ್ಭ್ರಮೆ ಈ ಕವಿತೆಯದ್ದು.

ಚಂಪಾ ಅವರ ಜನಪ್ರಿಯ ವ್ಯಕ್ತಿತ್ವದ ಕಾರಣದಿಂದಲೇ ಗಮನ ಸೆಳೆದ ವಿಜಯಕಾಂತ ಪಾಟೀಲರ ಎರಡು ಕವಿತೆ ' ಚಂಪಾ ಚಿತ್ರ' ಮತ್ತು ' ಚಂಪಾಗಿರಿಯಲ್ಲಿ'. ಇವು ಅವರ ಬದ್ಧತೆ,ಬಂಡಾಯ ಮನೋಧರ್ಮ ಕಟ್ಟಿಕೊಡುವುದರ ಜೊತೆಗೆ

ಅವರ ಮಾನವೀಯ ಹಾಗೂ ಸ್ನೇಹ ಸ್ವಭಾವವನ್ನು ತೋರುತ್ತವೆ. ಎಲ್ಲೇ ಇದ್ದರೂ ಉತ್ತರ ಕರ್ನಾಟಕದ ಅವರ ಜವಾರಿತನವನ್ನು ನೆನಪಿಸುತ್ತವೆ.

ಇನ್ನು ಜೀವನ ಪ್ರಯಾಣದಲ್ಲೆದುರಾಗುವ ಬದುಕಿನ ದಾರುಣ ಚಿತ್ರಗಳೂ ಈ ಸಂಕಲನದಲ್ಲಿ ಕವಿತೆಯ ಜಾಗ ಪಡೆದುಕೊಂಡಿವೆ. ' ಹುರಿಗಡಲೆ ಮಾರುವ ಹುಡುಗ' ಮತ್ತು ' ಉದರ ರಾಗ' ಎಂಬುವು ಅಂತಹ ಕವಿತೆಗಳು.ಹುರಿಗಡಲೆ ಮಾರಿ ಜೀವನಾಧಾರ ಕಂಡುಕೊಳ್ಳಲೆತ್ತಿಸುವ ಹುಡುಗನ ಕೌಟುಂಬಿಕ ಬಡತನದ ಭೀಕರತೆ ನಮ್ಮ ನಿದ್ಧೆಯನ್ನೂ ಕೆಡಿಸುವಂತಿದೆ. ಅಂತೆಯೇ ಹಾರ್ಮೋನಿಯಮ್ ನುಡಿಸಿ, ಹಾಡುತ್ತ ಅನ್ನ ಕಾಣಲೆತ್ತಿಸುವ ತಾಯಿಯೊಬ್ಬಳ ಚಿತ್ರ ಕೂಡ.

ಹೀಗೆಯೇ ಓದುತ್ತೋದ್ದಾ ಸಂಕಲನದ ಕೊನೆಕೊನೆಗೆ ಬರುವ ಹೊತ್ತಿಗೆ ಕಲಾತ್ಮಕತೆಯ ಬಗ್ಗೆ ಚರ್ಚೆಗೆ ಈಡು ಮಾಡಬಲ್ಲ ' ಎಲ್ಲಕ್ಕೂ ಮಿಗಿಲಾಗಿ' ಎಂಬ ಕವಿತೆ ಪರಿಶ್ರಮ ಮತ್ತು ಬೆವರಿನ ಸಂಬಂಧದ ಸಂಯಮದಲ್ಲಿ ಕಲಾತ್ಮಕತೆಯ ಜನನ ಗುರುತಿಸಲೆತ್ತಿಸುತ್ತದೆ.

ಇಷ್ಟೆಲ್ಲಾ ಓದಿಗೊದಗಿದ ವಿಜಯಕಾಂತ ಪಾಟೀಲರ ಕವಿತೆಗಳನ್ನು ಪೂರ್ಣಗೊಳಿಸಿದ ಮೇಲೆ ಅನ್ನಿಸಿದ್ದಿಷ್ಟು: ಈ ಲೋಕದ ಭಾಗವಾಗಿ ಬದುಕುವ ಅಂತಃಕರಣವುಳ್ಳ ಕವಿ ಕಾಣುವ ಅನುಭವ ಕಂಡಷ್ಟರ ಪರಿಮಿತಿಯನ್ನು ದಾಟಿಯೂ ಇರುತ್ತದೆ. ಆ ಅದರ ಮಿಗುವಿಕೆಯನ್ನು ಭಾಷಿಕ ಆಕೃತಿಯಲ್ಲಿ ಹೊಸದೆನ್ನುವಂತೆ ಹಿಡಿದು ತನ್ನ ಕಾವ್ಯ ಪರಂಪರೆಯ ಏಕತಾನತೆಯನ್ನು ಮುರಿಯಬಲ್ಲ ಕವಿತೆ ಮಾತ್ರ ಜೀವಂತವಾಗುಳಿಯುತ್ತದೆ. ಸೈದ್ಧಾಂತಿಕ ಆವರಣವನ್ನು ಮೀರಿಯೂ ಅನುಭವ ಜಗತ್ತಿಗೆ ಕವಿ ಮನಸ್ಸು ತೆರೆದುಕೊಂಡಾಗ ಇದು ಸಾಧ್ಯವಾಗುತ್ತದೆ. ನಿರಂತರ ಕ್ರಿಯಾಶೀಲರಾಗಿರುವ ವಿಜಯಕಾಂತ ಪಾಟೀಲರಿಂದ ಅಂತಹ ಕವಿತೆಗಳನ್ನೂ ಓದಿಗಾಗಿ ಕಾಯುತ್ತಿರುವೆ.

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3. ಎ.ಕೆ.ರಾಮಾನುಜನ್ ಆಯ್ದ ಪ್ರಬಂಧಗಳು, ಅನು : ಓ. ಎಲ್. ನಾಗಭೂಷಣಸ್ವಾಮಿ, ಮನೋಹರ ಗ್ರಂಥಮಾಲೆ, ಧಾರವಾಡ



“An Overview on Electronic Money Laundering of the Fintech Industry's Shadow Aspect”

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Abstract:

Fintech has significantly expanded the offer of fiscal services available to druggies, easing the spread of new backing, payment, and exchange services in decreasingly large sections of the population. Still, there's a strike, represented by the lack of organic regulation that defines the border of legitimacy. World lawmakers, Europeans in particular, have started erecting a structured legal frame to help (or to catch) opportunistic or felonious actions. Among the necessary challenges for the anti-money laundering system are those related to the development of FinTech which produces significant volumes of deals? This paper it's handed a methodical review of a) the most common plutocrat laundering patterns; b) the European anti-money laundering legal frame, and c) the most recent and applicable fraud cases detected by the enforcement agencies. The main idea of this exploration is to corroborate whether the geste of profitable players within the FinTech sector can be contained within the limits of legitimacy. Another idea, far from secondary, is to dissect the current patterns that lead to plutocrat laundering, also vindicating whether there are tools, within the FinTech itself, able of exploiting technologies and relating dark or illegal practices. The recent case study of dishonors within the FinTech assiduity further helps to support the suppositions and conclusions of the exploration itself.

Keywords: Plutocrat laundering; Fraud discovery; Fintech; Dark Web; Cyber security

Introduction:

The no longer negligible and growing significance of the FinTech sector inescapably leads to the need to dissect the associated pitfalls, especially in relation to plutocrat laundering. In this paper, after assaying the literature, we punctuate, in close relation to the technological and specialized aspects of the FinTech systems presently available, the most critical issues in terms of legitimacy, security, and trust ability of deals. This exploration is thus substantially addressed to all profitable players who use or give payment services similar to crypto currencies or, more generally, fiscal services that are managed in a technologically advanced IT way, similar to that they can be considered as FinTechs.

Methodology:

The methodology in use for this exploration is qualitative. The analysis is grounded on a methodical exploration and review of the current challenges related to the safety, legitimacy, and trust ability of deals through crypto currencies in a new “

FinTech terrain”. Methodical reviews are a type of literature that uses methodical styles to collect secondary data, critically estimate exploration studies, and synthesize studies. Methodical reviews form exploration questions that are broad or narrow in compass and identify and synthesize studies that lie directly to the methodical review question. They're handed to give a complete, comprehensive summary of the current substantiation applicable to an exploration question. The main exploration questions linked for this paper are threefold a) is it possible to corroborate whether the geste of profitable players within the FinTech sector can be included within a legal frame?; b) while assaying the current patterns that lead to plutocrat laundering, it's possible to corroborate whether there are tools, within the FinTech itself, able of exploiting technologies and relating dark or illegal practices.; c) What are the recent and applicable cases of dishonors within the FinTech assiduity?

Literature Review:

The COVID-19 epidemic has favored the techno-finance sector, which is suitable to give more effective answers in terms of speed, and has also stressed how commercial dexterity is among the crucial values of the future. Currently, banks are working on digitization to speed up processes. The major pitfalls faced by the techno-finance sector and the reasons why operations, software, and systems should be enforced against vulnerabilities and hacking (8). The following crucial pitfalls can be linked a) Hacking and Malware Attacks(the recent cyber-attack on one of the SWIFT architectures has demonstrated the complicated position of hackers); b) FinTech APP security(operations are used to steal client data); c) plutocrat laundering threat(using limited currencies or cryptocurrencies involves illegal plutocrat laundering and indeed terrorist backing. This is a threat still linked to the hard identification of the devisee in any sale enabled by Fintech); d) Digital identity and data integrity (the online security armature must be revised to apply the Fintech sector with solid encryption algorithms and data protection systems); e) Choice of Cloud services(the lack of acceptable security measures in certain services can compromise sensitive fiscal information)

Several studies have formerly been carried out that dissect the threat of plutocrat laundering linked to the use of crypto currencies and, more generally, to FinTech systems, still these inquiries have concentrated on each specific aspect, similar to felonious examinations(Fintech forensic), the crucial factors for the relinquishment of fintech systems, Anti – plutocrat Laundering Law and Compliance in FinTech, The regulation of fintech and crypto currencies. A methodical analysis of systems, pitfalls, fraud cases, and regulations was still missing.

**Findings Plutocrat Laundering
Patterns:**

Three crucial points relate to concrete cases that surfaced in recent history. Cryptocurrency exchanges take place on limited platforms and multitudinous cases of thefts have passed without druggies being suitable to cover their rights. On the subject of plutocrat laundering, the then-on-traceability of Cryptocurrencies has made it possible to move suspicious means which ended up in the sights of the authorities. The

exchange channel allows to bypass of authorized fiscal interposers and deals aren't safe.

With a specific reference to plutocrat Laundering, plutocrat takes place a) in the classic case of “ washing ” of the plutocrat(i.e. the elimination of any possible connection with the former offense(relief conduct); b) in the transfer, through concession tools, of goods of lawless origin(transfer conduct); c) in carrying out other operations aimed at hindering the identification of the felonious origin of the goods, considered as an ending clause aimed at pursuing conduct not preliminarily linked by the solon and which are the result of the “ creativity ” with which the felonious groups work to reclaim the dirty plutocrat. Thus, the obscurity of cryptocurrencies along with a lack of control by a centralized authority represents a charming occasion for plutocrat laundering and, in general, for the reinvestment of capital of illegal origin.

Thus, the obscurity of crypto currencies along with a lack of control by a centralized authority represents a charming occasion for plutocrat laundering and, in general, for the reinvestment of capital of illegal origin Although plutocrat laundering is frequently the result of a complex series of deals, it's always the result of three distinct way(18) Placement, Integration, and Layering.

Placement

In the placement phase or preface, the launderer inserts the proceeds of illegal exertion into the fiscal system. Frequently this phase is attained by depositing finances with fiscal institutions, pavilions, marketable establishments, and other businesses both in the domestic request and in the transnational request. Large totalities of cash are divided into lower totalities and deposited in bank accounts, transported abroad and deposited in foreign accounts, or used to buy high-value goods(workshop of art, essence, and precious monuments, luxury buses) which can also be resold against payment by check or line transfer.

Layering

In the layering phase, or position," layers" of posterior fiscal deals are carried out which make it veritably delicate to reconstruct the inflow of plutocrats and in fact' detach' the lawless proceeds from their origin. Frequently at this stage, multitudinous transfers of finances are made

from one account to another, frequently different fiscal institutions in different countries. The deposited plutocrat can be converted into other financial instruments (similar to Rubberneck's checks), or invested in the purchase of real estate or licit businesses, or by coping securities or insurance content.

Integration

In the integration phase, apparent legality is handed to the wealth inferring from lawless goods by introducing the 'sanctified' wealth into real frugality in forms that appear normal (deposit of totalities inferring from deals of goods, trade of securities, redemptions of programs). Once this phase is completed, wealth appears to all intents and purposes legal and the launderer can use it without any limitations, for illustration by making full use of the payment instruments offered by the banking system, for any sale.

Findings EU Anti-Money Laundering Legal Frame

The anti-money laundering legislation is contained in a structured system of sources at transnational, EU, and public positions. The EU rules on the forestallment and fighting of plutocrat laundering and terrorist backing have, over time, incorporated the elaboration of transnational principles, creating a harmonized nonsupervisory terrain among Member States. The European Union's anti-money laundering commitment dates back to the early 1990s and it has been reflected, over two decades, in five Directives and several other vittles. Prior to the Fifth Directive, the Union's responsibility to recognize and report suspicious activity did not apply to service operators whose business involves providing services for exchange between digital currencies and currencies that are legal currencies. This excrescence in the system has meant that terrorist groups have constantly handled huge fiscal overflows in total obscurity, concealing transfers with exchanges between virtual currencies. Hence the need to modify and expand the compass of operation of Directive 2015/849, so as to include these exchange service providers and digital portmanteau in the list of subjects obliged to pay plutocrat laundering scores.

The anonymity of digital currencies makes them vulnerable to being used for illegal activities. The obscurity handed by

these virtual systems is guaranteed, in fact, anyhow of the presence on the request of interposers, given that the exchange operations take place through rigorously private and not collaborative mechanisms. The only way, still supported by the European solon, to fight the obscurity handed by these virtual currencies could be the possibility for individual FIUs, the public Financial Information Units, to gain information that allows them to match the identification number of the virtual currency to the identity of the proprietor of that currency. As well as crypto currencies, reimbursed payment cards are a popular and useful tool. Anonymous prepaid cards can easily be used to finance terrorist organizations. Anonymous prepaid credit cards are much lower used than normal repaid cards since they can be generally outgunned with small quantities, but they aren't subject to traceability. It's thus essential to further reduce the limits and maximum quantities below which obliged realities are authorized not to apply certain client due industriousness measures set out in Directive (EU) 2015/849. While taking due account of the requirements of consumers with respect to reimbursed instruments for general use and without precluding the use of similar instruments to promote social and fiscal addition, it's essential to reduce the being thresholds for anonymous prepaid cards for general use and identify the consumer in the case of remote payment deals.

The measures introduced by the 5th Directive, although supposedly "ideational" in nature, profoundly affect the European request of the numerous FinTech companies that deal with crypto currencies. The unequivocal extension of the anti-money laundering legislation to deals made by virtual currencies can be considered an important achievement in terms of FinTech request translucency and safety. It raises also the position of attention of the fintech players and of the Supervisory Authorities on a miracle that- although now large-scale- was over to now remain in a shadowed nonsupervisory area, with the possibility for felonious associations to make deals without being traced.

Crypto Capital Enterprise:

In October 2019, Clean police captured Ivan Manuel Molina Lee, administrator of Crypto Capital Organization

(CCC), the organization that has for starters given financial administrations for Bitfinex and other significant exchanging stages on transnational tycoon washing charges. of digital forms of money including Binance, Kraken, and BitMEX. Because of a typical activity (Europol, Interpol, Shafts, and US administrations) Molina Lee, a Canadian resident, was removed to Warsaw where he was needed for washing of 1.5 billion zlotys, around 350 million euros, achieved from unlawful sources. As indicated by the Clean claims announced by RMF 24, Molina Lee did "tycoon washing for Colombian medication organizations utilizing digital currency trade organizations". The policing driven by the Clean specialists is the biggest in the nation's set of experiences. Clean examiners expressed that Crypto Capital Organization held ledgers in the little peaceful Bank Spółdzielczy in the megacity of Skierniewice and cleaned unlawful returns in the country through the digital currency trade foundation BitFinex. As of late, Molina Lee's molding through Crypto Capital Partnership and its other section, Worldwide Exchanging results, had been straightforwardly engaged with a sort of "shadow banking framework" that gave financial balances to digital money organizations.

Coin Ninja:

In February 2020, the U.S. common Government captured Larry Harmon, Chief of the Coin Ninja media stage and creator of the Drop Bit digital currency portmanteau. Specifically, the man was prosecuted for leading magnate washing molding and maintaining a business for the trading of funds without a particular permit from Fin CEN. As per the capture leave recorded toward the beginning of February, Harmon would have cleaned north of 354,468 Bitcoin (BTC), unique to generally \$ 311 million at the hour of the deal, permitting junkies of Helix and Grams, freely, a sequestration and sequestration device, a dim web chase machine, to convey on Alpha Bay, a genuinely famous dim solicitation yet shut in 2017. For these wrongdoings, Harmon will confront a bondage judgment multiple times.

In February 2020, the Dutch obligation specialists and the Financial Knowledge and Examination Administrations (FIOD) captured two people for supposedly editing a great many euros in digital currency. As indicated by a typical explanation from the Joint Heads of

Worldwide Duty Implementation (J5). The FIOD captured 2 Dutch residents in isolated assessments into obligation elusion recuperating around 260,000 in anonymous digital currencies and over 6.6 pounds of gold. Credit and disbenefit cards possessing digital currency and euros was additionally seized, one of the suspects utilizing the, previously prohibited, bitcoin blending serviceBestmixer.io? FIOD recently moved forward with its digital money molding. Working with obligation experts in the UK, US, Australia, and Canada comprehensively, J5 Specialists they've been taking part in tips and information starting around 2018. Quite possibly of the greatest datum dumps came soon after FIOD seized and closedBestmixer.io.

Wire card:

Since June 2020, in Germany, a serious financial rebuke including the web-based installment organization Wire card is in progress, after the disclosure of a space of 1.9 billion Euros which was permitted to be saved as trust funds in two banks in the Philippines yet which no way was. The previous Wire card's President has been captured in Germany on dubitation of misrepresentation, while his previous Chief blurred after escaping the country. Notwithstanding this misrepresentation, as indicated by the Financial Times, Wire card reused installments for a Maltese web-based vacation home which was recently prosecuted of washing magnate for a significant individual from the ' Ndrangheta, one of Europe's most perilous secrecy affiliations. Wire card reused installments for Centurion Bet, a Malta-grounded gaming organization that was recently set up by Italian courts to be a ' Ndrangheta way for moving tycoons out of the country in a modern magnate washing activity. Wire card kept on exchanging with Centurion Bet, which was consolidated in Malta but moved by a Panamanian organization, until 2017 when its betting permit was suspended by the Maltese specialists and ceased exchanging after an enemy of mafia strike that saw the capture of 68 individuals. Additionally, north of 30 individuals have been censured for secrecy-related wrong doings. Centurion Bet's profit included just a digit of Wire card's worldwide tasks, however, the revelation brings up additional issues about the German organization's plan of action, previously expected to be a pilgrim of European fintech.

As a directed installment establishment, Wire card is expected to keep the severe enemy of tax evasion rules and report dubious arrangements to capable specialists. Wire card additionally reused installments for another bigger Maltese betting organization that has been done by the Italian experts for tycoon washing for arranged wrongdoing gatherings. It's conceivable that Wire card was uninformed about the organization's supposed connections to arranged wrongdoing.

Danske Bank:

An examination concerning the Danske Bank concerns a few dubious exchanges, helped out through the bank's Estonian branch, which occurred somewhere in the range of 2007 and 2015. It is viewed as the greatest global tax evasion embarrassment since the general measure of these "dubious exchanges" is near € 200 billion. An intense issue for Danske Bank, blamed for tax evasion towards Russian clients. The examination turned out in September 2018, when an autonomous examination uncovered that the Danish bank had taken part in the washing of 200 billion euros through the Estonian division. Resulting examinations constrained Thomas Borgen, the bank's President at that point, to leave. Danske Bank has more than 21,000 representatives spread across branches, however since the outrage arose, alerts about the downturn in profit before long have just been duplicated. Aivar Rehe, previous President of Danske Bank in Estonia, was found dead in his home by the Tallinn police. In 2018 Deutsche Bank likewise conceded to being engaged with the Danish bank embarrassment, having pronounced that it had been associated with the administration of around 130 billion euros that came from the Estonian part of Danske Bank. This is on the grounds that Deutsche Bank had been associated with assisting some Danske With banking clients in Estonia to move cash to the US.

Findings:

Fin Tech against Illegal Tax Avoidance Arrangements:

Manual/human-drove check actually stays the primary technique for recognizing illegal tax avoidance cases. Anyway, this interaction creates an exercise in futility and wasteful assets. Investigators were answerable for assessing claimed monetary misrepresentation cases are frequently

confronted with misleading up-sides. They at times are not even ready to perceive an instance of tax evasion. A potential (similarly costly) arrangement could be to grow the group of misrepresentation examiners or to expand the arrangement of recognizable proof standards. Yet, this wouldn't be guaranteed to prompt any interaction advancement. FinTech arrangements in view of Man-made consciousness can have an effect on the side of the manual movement of the group of experts. Prescient calculations identify oddities in client conduct, elaborate a gamble gauge, and construct a positioning that assists examiners with zeroing in exclusively on the most dubious cases.

HSBC:

Inside its Worldwide Exchange and Receivables Money technique, HSBC, the notable financial gathering, has executed another AML Framework (Hostile to Illegal tax avoidance Framework), to naturally identify tax evasion exchanges utilizing simulated intelligence. Set up fully intent on working on the discovery of monetary wrongdoing, the new AML framework utilizes huge information, progressed dissects, and a "logical robotized" observing methodology "to distinguish and stop monetary wrongdoing in global exchange". Created in participation with the English IT organization Quantexa, this new logical methodology expands on HSBC's involvement with dissecting organizations to permit the bank to distinguish dubious examples and likely crook organizations. As expressed by the English financial gathering, the programmed AML discovery framework is as of now dynamic in the Unified Realm and Hong Kong. The arrangement based on the Quantexa stage utilizes billions of information focuses to give elements an organization knowledge structure that references north of 40 billion monetary exchanges. Utilizing this innovation, client exercises can be continually surveyed and evaluated for risk. This degree of context-oriented checking further develops precision and dynamic regarding the two avoidances and location.

Conclusions:

The specific dangers of the computerized economy are expanding, like wholesale fraud and online blackmail (ransomware assaults) [29-30]. There is likewise a rarefaction of individual connections, with enough of a chance to

safeguard namelessness and the deficiency of significance of geological references make these business sectors appealing for the washing of continues from customary violations or to make "sink" assets for unlawful use, for example, psychological oppressor funding and defilement. Clear and fundamental standards and guidelines, and powerful controls are important to consolidate the point of unlawful lead avoidance with the motivation for advancement and proficiency for fair administrators and end clients. As it is illustrated, considering that the most immediate and significant moves to be made against tax evasion are: a) limitations on the utilization of money and conveyor protections (non-enrolled), and b) following monetary exchanges, numerous different procedures can be executed to guarantee the security and, simultaneously, the legitimacy of exchanges.

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