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ONE-DAY INTER-DISCIPLINARY
NATIONAL LEVEL VIRTUAL CONFERENCE



**AATMANIRBHAR BHARAT :
PROSPECTS & CHALLENGES**

Organised by

DAYANAND EDUCATION SOCIETY'S



**DAYANAND COLLEGE OF COMMERCE,
LATUR
INTERNAL QUALITY ASSURANCE CELL**

**MAY
2023**

Chief Editor
Dr.Pramod P. Tandale

Executive Editor
Dr.Balaji Kamble



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Message

I congratulate IQAC, Dayanand College of Commerce, Latur for taking initiative in organizing one-day inter-disciplinary national level virtual conference on “Aatmanirbhar Bharat: Prospects & Challenges”.

The aim of ‘Aatmanirbhar Bharat Abhiyan’ is to make the country and its citizens independent and self-reliant in all senses. Keeping this aim front, the present conference will revolve around the discussion to build a strategic approach to manage critical economic sectors that will help the country revive economically and contribute to the healthy development of the overall society.

Hence, the present conference will acquire a strategic approach to managing important sectors of the economy which require special attention in this crisis situation. It will not only help the country to revive economically but also contribute to the wholesome development of the overall society. We under Aatmanirbhar Bharat need to approach via technology over globalization. Thus, the innovation will be the prime focus leading to world-class products.

I hope in this one-day inter-disciplinary national level virtual conference the Resource Persons, Professors, Research Scholars and participants will surely share their broad views on ‘Aatmanirbhar Bharat’ and come out with suggestions on the conference theme.

Laxmiraman Lahoti

President,
Dayanand Education Society,
Latur.

Message

With the unpredicted times of COVID-19, the Indian economy faces challenges from different sources. India has been facing problems due to shut down in the economic activities for more than a year. Prime Minister Shri Narendra Modi's address to nation on 12th May 2020 when he announced an economic stimulus package for Rs 20-lakh-crore, towards building a Aatmanirbhar Bharat, or a self-reliant India, with the aim of making the country independent against the tough competition in the global supply chain and to help in empowering the poor, laborers, migrants who have been adversely affected by COVID-19.

The primary objective of this conference is to interpret Aatmanirbhar Bharat Abhiyan and discuss it in terms of prospects and challenges and also discuss measures to be adopted in terms to overcome the challenges.

The conference also aims to bring together academicians, researchers, practitioners, and policymakers to discuss and share their views on contemporary issues and trends in the field. The conference will provide a platform for interdisciplinary exchange and collaboration and offer opportunities for networking and learning. I wish all the best to all the participants.

Ramesh Biyani

Secretary,

Dayanand Education Society,

Latur.

Message

I congratulate the IQAC & faculty of college for organizing one-day interdisciplinary national level virtual conference on “Aatmanirbhar Bharat: Prospects & Challenges”.

Organizing this conference is an initiative step taken by our college to understand the concept Aatmanirbhar Bharat (Self Reliant India) and its prospects and challenges. When we overview this concept, then we understand that Aatmanirbhar Bharat helps people in rural areas to meet their needs and will create new opportunities for employment among the rural youth to both males and females which is the need for time. It also promotes start-ups by which students will start to become more inclined towards becoming entrepreneurs. Entrepreneurs may create entirely new markets and industries that become engines of future growth processes. Entrepreneurship can help battle youth unemployment in India.

The mission ‘Aatmanirbhar Bharat’ is equipped to fight the downfall of the economy by contributing to job creation, education to continue skill development and Digital health mission to be self-reliant socially. India with its young population has good opportunity to attain status of Aatmanirbhar Bharat in a short span of time.

I am sure this virtual conference will discuss prospects and challenges pertaining to the conference theme and will reach to the fruitful outcomes.

Dr. R.S. Pawar

Principal,

Dayanand College of Commerce,

Latur.

Editor's Note

At the outset, I appreciate and congratulate IQAC team and faculty for their contribution in organizing this one-day inter-disciplinary national level virtual conference on “Aatmanirbhar Bharat: Prospects & Challenges”. The organizers have taken conscientious efforts to reach the nation-wide research scholars and collected papers on various issues allied with the conference theme.

The essential themes of the conference include Entrepreneurship and Start-ups and Skill India, Employment and Skill Development, Digital India, Agriculture and Rural Development, Innovation and Research & Development, Development and Inclusion, E-commerce, Marketing & Digital Payments, Role of Regional Languages in Aatmanirbhar Bharat, so on and so forth.

Hence, the present conference will acquire a strategic approach to manage important sectors of the economy which requires special attention in this crisis situation. It will not only help the country to revive economically but also contribute to the wholesome development of the overall society.

I appreciate all researchers for the time and efforts they have put in writing research papers pertaining to the conference themes.

Dr. Balaji G. Kamble
IQAC Coordinator
Dayanand College of Commerce,
Latur.

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Impact of E-Commerce on Business

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Abstract:

Fast forward into the 21st century we see the overall daily turnover or growing system adoption of e-commerce in every level of the world. In simple language we can define e-commerce as "e-commerce is a process of purchasing products and services from businesses and consumers through electronic means without any paper or documents." We have seen that the business through the computer or the internet is booming and within a short period of time the customers have found this business attractive and we are seeing this business getting boosted to a large extent. Overall, we can definitely look at e-commerce trade or business as a growing influential business in the back of the world and in other developed and developing countries. We can see the increasing flow of e-commerce business in every country is definitely an indication or indicator of an increase in the overall infrastructure of that country. In accordance with all these aspects, we definitely see a large increase in overall technological progress in that country and cooperation from other countries.

By far, e-commerce is the fastest growing industry in the global economy. According to an estimate, this number increases by about 23% every year. The e-commerce business is projected to become a \$27 trillion industry by the end of this decade.

Keywords: Market Transformation, Economic Reforms, Employment Opportunities, Customer Engagement, Customer Relationships and Global Markets.

Introduction:

The term "electronic commerce" or (e-commerce) refers to the use of electronic media to conduct day-to-day business transactions. In other words, e-commerce emerged in accordance with how electronic media can be incorporated to the maximum extent possible. Generalization refers to the sale of products over the Internet.

E-commerce or electronic commerce is the overall buying and selling of goods, products or services over the Internet, also known as electronic commerce or internet commerce. All services in this e-commerce transaction are provided online through an internet network (internet) such as transactions of money, funds and data are also considered as e-commerce. E-commerce business can be transacted in following four ways:

- 1) Business to Business (B2B),
- 2) Business to Consumer (B2C),
- 3) Consumer to Consumer (C2C),
- 4) Consumer to Business (C2B).

Electronic commerce or even business through the Internet i.e. e-commerce is the most popular term these days. The name is self-explanatory; it features a virtual marketplace of large numbers of buyers and sellers. It is a marketplace of buyers and sellers on the Internet. It includes transaction of goods and services, transfer of funds and exchange of data.

History of e-commerce

E-commerce can be traced back to the 1960s, when businesses began using the EDI system to share business documents with other

companies. In 1979, the American National Standards Institute developed ASC X12 as a universal standard for business growth and expansion and expansion of business and business expansion for document sharing over electronic networks.

The rise of eBay and Amazon in the 1990s revolutionized the e-commerce industry, following the rise of individual users sharing electronic documents with each other in the 1980s. E-tailers with e-commerce capabilities, consumers can now purchase numerous items online from typical stores. Now, almost all retailer companies are adopting online business methods in their trading business in a big way.

Evolution of E-Commerce:

In 1991, the World Wide Web was created. Although the Internet is now a major part of many of our daily lives, it is important to note that it is still a relatively new development compared to the retail industry as a whole.

Then, in 1994, Pizza Hunt became the first major business to officially offer online shopping. A year later, eBay and Amazon were founded. According to many people this is the beginning of e-commerce as we know it today.

By 1996, online sales surpassed \$ 1 billion. This is an incredible leap given that the Internet is still only 5 years old - and it certainly foreshadows the subsequent development of the industry. Still, no one could have predicted the \$25 billion in sales in 2000.

By the following year, 70% of internet users had strengthened their position in the retail industry

by shopping online during the holiday season. In 2005, the term "cyber Monday" was coined, and Thanksgiving Monday officially became the biggest online shopping day of the year. E-commerce sales continue to grow, with total sales increasing by 135 percent from 2009 to 2015.

Nature of E-Commerce:-

It has also been described as a "fusion of telecommunication and computer technology for conducting business" while underlining e-commerce. It involves the creation and management of relationships between buyers and sellers facilitated by interactive and pervasive electronic media. Some of the main reasons for the growth of electronic commerce are:

- Campaign to reduce costs through e-commerce
- Easy availability of internet for e-commerce business arrangement
- Lack of regulation on the Internet
- Easy access to global markets without any restrictions for sellers
- Potentially lower prices for larger purchases and buyers
- Lower prices for sellers
- Ability to enter new markets more easily.

Some features of e-commerce technology:-

Features of e-commerce technology include:

- **Ubiquity:** E-commerce business is ubiquitous and available everywhere.
- **Global Reach:** The size of the total potential market is equal to the estimated size of the total population of the world.
- **Universal standards:** The technical standards of internet in e-commerce business and hence of conducting e-commerce, are common to all the countries of the world i.e. there is uniformity across the globe.
- **Richness:** Complex and content-rich information can be easily conveyed.
- **Interactivity:-** E-commerce technology accelerates and allows two-way communication between the merchant and the consumer and the overall exchange of information between the merchant and the consumer.
- **Information density:-** The overall amount and quality of information available to market participants in the e-commerce business has greatly increased and is much cheaper to distribute.
- **Personalization/Customization:-** E-commerce technology enables merchants to

target their marketing messages to an individual's name, interests and past purchases. They allow the buyer to change the product or service according to the customer's buying behavior and preferences.

- **Social technology:-** User content creation and social networking technology is playing its role at a very fast pace.

Impact of E-Commerce on Business:-

Due to the increasing advancement in technology in the market, the impact of e-commerce or the impact on business can be mentioned as follows.

● **Transformation in the Marketplace:-**

Through globalization, business can be conducted in any place or location accessible to the Internet. Corporations can offer their products and services with the involvement of intermediaries. The functions of traditional intermediaries will be changed, new products and markets will be developed, and new and much closer relationships will be created between businesses and consumers. It will change the organization of work – new channels of knowledge and greater flexibility in human interaction in the workplace.

● **Fast Growth of Business:-**

E-commerce trade business will continue to grow exponentially as well as the changes already underway in the economy, such as changes in regulations, establishment of electronic links between businesses (EDI), globalization of economic activities and demand. Highly-skilled workers. Similarly, electronic banking, through innovative electronic change will certainly act as a boost to e-commerce business due to all the changes.

● **Helpful in Globalization:-**

Exchanging information in a global trade or international trade was a problem but e-commerce facilitates MNCs and global organizations to transfer real-time information to employees, stakeholders and customers. E-commerce on the Internet increases interactivity in the economy. These links support the business organization in business expansion.

● **Electronic Commerce Growth:-**

Currently, electronic commerce on the Internet is relatively small but growing rapidly. Currently electronic commerce is in its nascent stage and technology and market dynamics are still shaping its fundamentals. People resist using e-commerce. This is especially true for the business-to-consumer segment, where people are concerned

about internet security, potentially fraudulent merchants, privacy of personal information, etc. One of the concerns of online fraud is increasing day by day.

- **New Employment Opportunities:-**

Overall, the growing influence of e-commerce will certainly bring about a definite change in the demand for IT professionals, the skills required for this entire business. For electronic commerce, IT expertise also needs to be joined with strong business application skills and hence a flexible, multi-skilled workforce is required. And we see huge job creation opportunities in this e-commerce business.

- **New Business Opportunities:-**

Changing industry structures and electronic commerce systems allow new businesses to be established or established based on the wide availability of information and its direct distribution to end-customers. Going further than the new, we see that the new business image is a new type of intermediary or information broker. These include famous information search engines like Yahoo and Lycos, search engines, e-bay, online business, internet shopping, online consulting, etc. Like-site e-commerce business is a technology-based activity that requires an infrastructure for seamless location, transfer and integration of business information in a secure and reliable manner. E-commerce adoption in small towns and villages is low due to lack of basic infrastructure.

- **Product Promotion:-**

Through direct, information-rich and interactive contact with customers. One of the first uses of electronic commerce was to provide product information through online electronic brochures and buying guides. It can be seen as an additional marketing medium, so that proper infrastructure should be provided for customers to access information, product information and availability anytime, anywhere through electronic commerce should reach maximum number of customers in a short period of time.

- **New Sales Channel:-**

The multi-directional approach of e-commerce has created new sales channels through which corporations can directly reach customers, suppliers, and stakeholders. Considering electronic commerce and the World Wide Web (WWW) in particular, the sales medium makes sense for two types of products—those sold in physical traditional stores. Products sold may be advertised and items such as computer hardware, information or software may be delivered for online order through electronic commerce media.

- **Customer Service:-**

The e-commerce line provides customer service and support services. Through decision guides, future audio and video support in the company's collection and the ability to provide online answers to problems as problems arise, 365 days a year, 24 hours a year, instills confidence and retention in the customer. Examining how customer's use this support information also provides insight into areas for improvement in existing products, and lists of problems encountered with products can be an important source of product feedback for new product design.

- **Customer Relationships**

Electronic commerce systems will allow for more personalized relationships between suppliers and their customers due to their ability to gather information on customer needs and behavioral patterns. Technology's role in creating new insights about customers is the ability to record every element of the relationship, such as when a customer asks for information about a product, buys an item, makes a customer service request, and so on. Through all of these interactions, whether over the phone in person or online, customer needs are identified and future marketing efforts are made.

In line with all the above points, although the customer relationship through e-commerce is definitely happening in a virtual way between the buyer and the seller, we can see a certain type of strength in the relationship between these two in the e-commerce business.

Conclusion:

E-commerce business maximizes customer benefits with low cost, easy reach to customers and a unique customer experience. Through e-commerce, customers can transact 24 hours a day. Proper use of e-commerce has become more essential for B2B as well as other businesses. Now, e-commerce is developing or better growing within the digital commerce system within the trade or business. This refers to the entire business journey from purchase of a good or service to delivery, including the online experience. Electronic commerce will greatly reduce transaction outlay. This reduces many of the fixed costs of the business. This allows corporations to take advantage of huge profit margins. It provides faster delivery of goods to customers in a shorter period of time. Electronic commerce helps establish direct contact with consumers and businesses without any intermediaries. In this e-commerce system, customer complaints are also easily redressed immediately. This saves time, energy and effort for both the customer and the company. This will lead

to a harmonious relationship between consumers and e-commerce or companies.

E-commerce provides sellers with a global marketplace. It removes any type of location based or geographical location barrier. Now sellers and buyers can freely meet anytime in the virtual world without the barrier of location.

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A Study on Problems Faced By the Individuals Due To Online Banking System

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Mumbai.

ABSTRACT

Banking activities have been into existence since 18th century BC. The main purpose that banks have been serving since their inception is keeping our money safe for us. Traditional banks have been doing this, and internet banks continue the same function. The only difference is in the way the transactions are made. The Internet is rapidly turning out to be a tool of worldwide communication. The increasing use of Internet earlier promoted producers and entrepreneurs to sell their products online. It has also become an important source of information and knowledge. Due to this, many banking and finance organizations have come up with the idea of Internet banking or online banking. In this research project, I have tried to study the nature, problems, challenges and opportunities of the Online Banking System in India. Internet banking has revolutionised from homemade personal computers to handmade android phones. Online banking, also known as internet banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The paper aims to bring out the challenges faced by customers in operating through internet banking. The samples are limited to the Internet banking uses of Chennai city of Tamil Nadu state. The sample size is limited to 100 respondents using convenient sampling. Convince, Flexibility and Time Saver are some of the advantages of the internet banking. The challenges faced in internet banking are low broadband internet penetration followed by Banks' Ambivalent Commitment Levels, Fear of Online Threats/Scams, Digital and Financial Divide. Accessibility of Internet Banking, Network Challenging Factors and Gender of the respondent determines the major challenges of Internet Banking.

INTRODUCTION

“Banks are to the economy what the heart is to the human body. They cycle necessary capital through the whole, and they are barely noticed until pressure, necessity, or crises.” — Hendrith Smith A bank is a place that lends money to individuals. It is a financial system that accepts deposits and provides money as loans/credit.

DEFINITION OF BANK: -

The definition of a bank varies from country to country. Under the English Common Law, a banker is defined as a person who carries on the business by conducting Current Accounts for his/her customers, paying cheques drawn on him/her and collecting cheques for his/her customers.

In most common law jurisdictions, there is a Bills of Exchange Act that codifies the law in relation to negotiable instruments including cheques and this Act contains a statutory definition of the term banker. Banker includes a body of persons, whether incorporated or not, who carry on the business of banking (Section 2 Interpretation). Although this definition seems circular, it is actually functional because it ensures that the legal basis for bank transactions such as cheques does not depend on how the bank is structured or regulated.

The business of banking is seen in many English common law countries is not defined by statute but by the common law, as per the definition stated above. In other English common law jurisdictions, there are statutory definitions of the banking business. While looking at these definitions it is important to keep in mind that they are defining the business of banking for the purposes of the legislation and not necessarily in general. In particular, most of the definitions are from the legislation that has the purpose of regulating and supervising banks rather than regulating the actual business of banking. However, in many definitions the statutory definition closely mirrors the common law one. Examples of Statutory definitions are as follows:

- i. Banking business means the business of receiving money on current or deposit account, paying and collecting cheques drawn by or paid in by customers, the making of advances to customers and includes such other businesses as the Authority may prescribe for the purposes of this Act [Banking Act (Singapore), Section 2 Interpretation].
- ii. Banking business means the business of either or both of the following:
 - a. Receiving from the general public money on current, deposit, savings or other similar account repayable on demand or within less than 3 months or with a period of call or notice of less than that period.

- b. Paying or collecting cheques drawn by or paid in by customers. Since the advent of EFTPOS (Electronic Fund Transfer at Point of Sale), direct credit, direct debit and internet banking, the cheque has lost its primacy in most banking systems as a payment instrument. This has led legal theorists to suggest that the cheque based definition should be broadened to include financial institutions that conduct current account for customers and enable customers to pay and be paid by third parties, even if they do not pay or collect cheques.

SCOPE OF THE STUDY: -

The study looks at the problems faced by the individuals due to the Online Banking System. The study was conducted in the Mumbai suburban region. The study period was for 3 months, from January to March 2019.

RESEARCH METHODOLOGY

STATEMENT OF THE PROBLEM: -

Once a time, people have to spend three to four hours to go for bank transaction sometimes cost of transaction was more than that of money deposited or withdrawn. E-banking allows customer to conduct financial transaction on a secure website. Nowadays User - Friendly Technology is becoming more popular among customers, most of the banks are providing e-banking facility. Today, most of the customers are increasingly using the technological banking facilities available in banking sector. It reduces cost and saves time. From the customers perceptive towards technological banking provides a convenient and effective way to manage finance that is easily accessible at 24hours a day in 7 days a week. On the other hand, online banking has certain problems such as lack of knowledge to operate the technology, set-up cost, legal issues, lack of relationship among banker and customer, securely and privacy issues. For some people the User Friendly Technology really simplifies their life style, while for others it is very much threatening and complex. Therefore, in this context, it is necessary to study the perception of customers' challenges towards User Friendly Technology.

SAMPLING METHOD: -

The sampling methods that have been adopted for the research is as follows:

SAMPLE SIZE:

70 people were interviewed who use the Online Banking System. So the sample size is 70.

OBJECTIVES: -

The following objectives are focused in this study:

1. To study how many people are aware about the Online Banking System.
2. To study how many people use the Online Banking System.
3. To study about the online transactions done by the people using the Online Banking System individually.
4. To study the problems faced by the individuals of all the age groups due to the Online Banking System.

LIMITATIONS OF THE STUDY: -

Time is the major constraint in collecting the data from the respondents. Most of the respondents are college students who belong to the age group of 15-25, working crowd who belong in the age group of 25-40 and 41-60 as well as the old aged people who belong to the age group of Above 60. In case of doubt, a cross checking was made in order to avoid bogus or biased information. The market survey was conducted only in Mumbai suburban region. Hence, the results arrived from the study may or may not be applied to other status. Further, the survey method which was adopted for collecting the data in study has its own limitations. Hence, the generalization of the findings of the study is subject to these limitations.

REVIEW OF LITERATURE

Meaning of Literature Review: -

Review of Literature provides an overview and a critical evaluation of a body of literature relating to a research topic or a research problem. It analyses a body of literature in order to classify it by themes or categories rather than simply discussing individual works one after another. It presents the research and ideas of the field rather than each individual work or author by itself. A literature review often forms part of a larger research project such as within a thesis (or major research paper) or it may be an independent written work such as a synthesis paper.

Purpose of a Literature Review: -

A literature review situates your topic in relation to previous research and illuminates a spot for your research. It accomplishes several goals which are stated as follows:

1. Review of Literature provides background for your topic using previous research.
2. It shows you are familiar with previous relevant research.
3. It evaluates the depth and breadth of the research in regards to your topic.

4. It determines remaining questions or aspects of your topic in need of research.

1. Dr. Renu Arora and Dr. Surabhi Singh (2011): -

In their research paper "Service quality of online banking services in public, private and foreign banks in India" This paper present recent developments in information technology have led to major changes in service providing organizations such as banks. Every bank realizes that they must use information technology to survive in this era. Through information technology, banks can better maintain the relationship with customers as customers tend to interact more with provided services through information technology. The emergence of new technologies is enabling new competitors to enter the financial services market quickly and efficiently. Therefore, it becomes imperative for service providers to meet or exceed the target customers' satisfaction with quality of services expected by them. This paper presents customers' perception of quality of online banking services in terms of its constituent factors in public sector, private sector and foreign banks. The scale was prepared on the basis of five factors of service quality, i.e., tangibility, reliability, responsiveness, assurance and empathy. Mean scores were also calculated to find out mean difference between factors affecting service quality of banking services and three types of banks. Overall evaluation showed that private and foreign banks were performing better than the public sector banks with regard to five factors.

2. Suresh (2008): -

He highlighted that recently developed e-banking technology had created unpredicted opportunities for the banks to organize their financial products, profits, service delivery and marketing. The objectives of the study were to evaluate the difference between traditional and e-banking, and to identify the core capabilities for the best use of e-banking. The author analyzed that e-banking will be an innovation if it preserved both business model and technology knowledge, and disruptive if it destroys both the model and knowledge. He also differentiated e-banking from traditional banking in five ways, namely, value proportion, market scope, cost structure, profit potential and value network. However, in order to exploit technical and business capabilities of ebanking, banks should generate more customers inside and outside India so that more revenues could be generated that lead to better future of Indian economy.

3. Kautish (2008) :-

He described the paradigm shift of banking sector from traditional banking to online banking. The objective of the paper was to discuss the derivation of value added tool of online banking system which was used to attract new customers and retain the existing ones. It helped the banks to acquire more business from existing customers. People preferred to use online banking because of its availability, better performance, ubiquity, speed and its effectiveness. Further, the author discussed two bank models integrated banking model where the banks provide internet banking services as an extension to their basic services like ATM and phone banking. So, it is a kind of hybrid approach and the other was standalone internet banking model, where the banks totally rely on the online channel. To improve the services through e-banking, banks should think from the customers' perspective and there should be creativity and 51 innovations in designing and implementation of e-banking processes. The author concluded that as e-banking was a relatively new concept in the global banking scenario so the best of this concept was yet to come.

4. Raja et al. (2008): -

He evaluated the impact of e-payment system on the business opportunities. They identified that due to the growth of internet users, various electronic payment mechanisms had been developed to cater the diversity of applicants. The researchers classified the e-payments into three main groups, namely, cash like systems, check like systems, and hybrid systems which were further classified into credit cards, debit cards and electronic cheques. They identified three main issues related to epayment that were security issues, low interest among businessmen, and heavy reliance on traditional payment methods. They also analysed that there were technical and cultural problems which hinder the path of e-payments. However, to make e-payments more effective, security threats should be reduced; and people should be realized that traditional payment methods were more time consuming than electronic payment methods.

They should also be realized that plastic card payments were more convenient, easier and more secure than cash or cheques.

DATA ANALYSIS AND INTERPRETATION

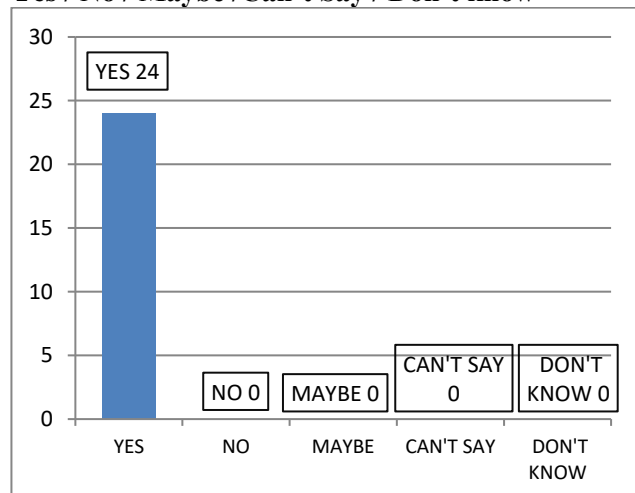
AGE GROUP 15-25: -

There were 24 people who fall under this age group when the survey was conducted. Almost all of them were students who were pursuing their studies in

various courses like undergraduate, postgraduate courses, etc. and the others were the newly graduated students who are working now. All these respondents belong to the Western Suburban Mumbai region. Some of them are from Malad, Kandivali, Borivali, Dahisar and Mira Road.

Q.1) Have you heard about the 'Online Banking System'?

Yes / No / Maybe / Can't Say / Don't know



FINDINGS:

1. Yes – 100%
2. No – 0%
3. Maybe – 0%
4. Can't Say – 0%
5. Don't Know – 0%

ANALYSIS:

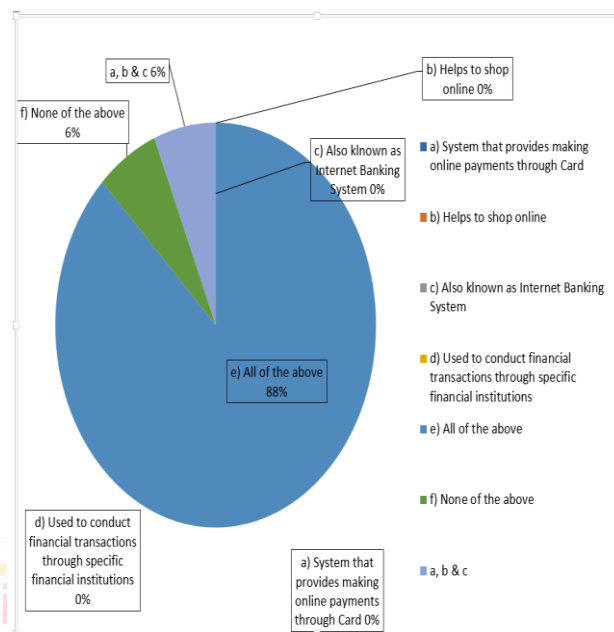
From the above bar graph, it is observed that 100% of the respondents are familiar about the Online Banking System.

AGE GROUP 26 – 40: -

There were 16 people who fall under this age group when the survey was conducted. All of them belong to the working category. All these respondents belong to the Western Suburban Mumbai region. Some of them are from Andheri, Malad, Kandivali, Borivali, Dahisar and Mira Road.

Q.) What is Online Banking System?

- a) System that provides making online payments through Card
- b) Helps to shop online
- c) Also known as Internet Banking System
- d) Used to conduct financial transactions through specific financial institutions
- e) All of the above
- f) None of the above



FINDINGS:

1. System that provides making online payments through card – 0%
2. Helps to shop online – 0%
3. Also known as Internet Banking System – 0%
4. Used to conduct financial transactions through specific financial institutions – 0%
5. All of the above – 88%
6. None of the above – 6%
7. a, b & c – 6%

ANALYSIS:

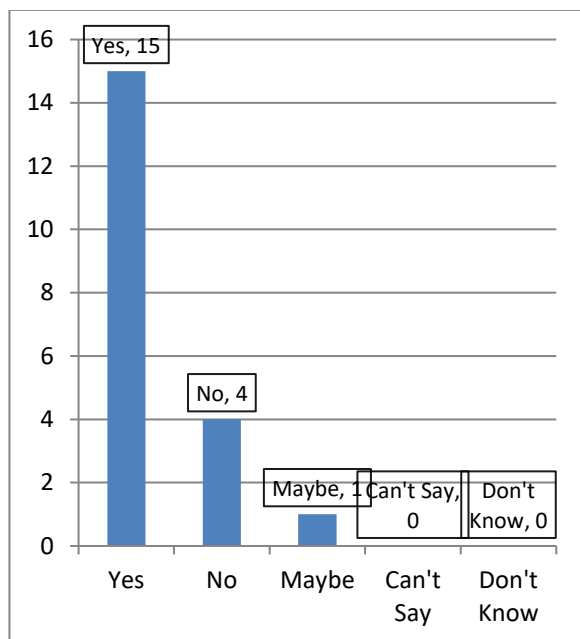
From the above pie chart, it can be seen that 88% of the respondents agree that Online Banking System is a system that provides making online payments through card, helps to shop online, also known as internet banking system and it is used to conduct financial transactions through specific financial institutions. 6% of the respondents think that Online Banking System is none of these as they are not aware about it. 6% of the respondents feel that Online Banking System is a system that provides making online payments through card, helps to shop online and it is also known as Internet Banking System.

AGE GROUP 41–60: -

There were 20 people who fall under this age group when the survey was conducted. All of them belong to the working category. All these respondents belong to the Western Suburban Mumbai region. Some of them are from Andheri, Malad, Kandivali, Borivali, Dahisar and Mira Road.

Q.1) Have you ever used the Online Banking System?

Yes/No/Maybe/Can't Say/Don't Know. If Yes, please specify for what?



FINDINGS:

1. Yes – 75%
2. No – 20%
3. Maybe – 5%
4. Can't say – 0%
5. Don't Know – 0%

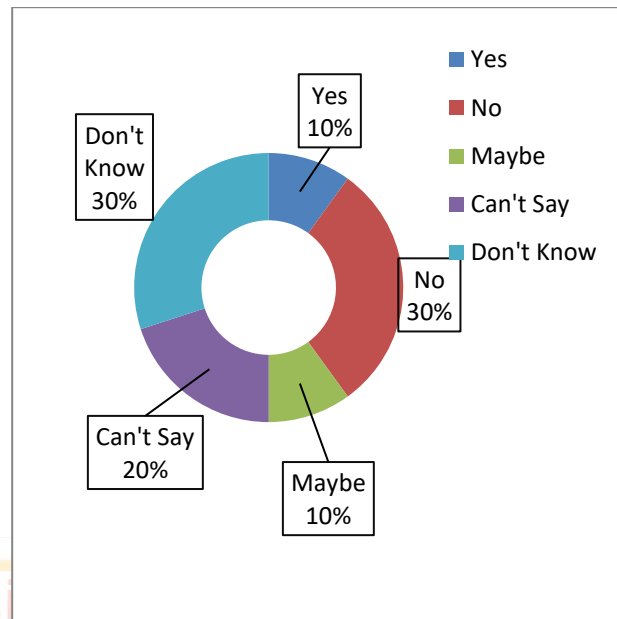
ANALYSIS:

From the above bar graph, it is clear that 75% of the respondents have used the Online Banking System and they have used it for Online payments, payment of utility bills, banking transactions, transfer of funds, check loan A/c details and for financial transactions. 20% of the respondents have not used the Online Banking System yet. 5% of the respondents have answered that they may be or may not be using the Online Banking System.

AGE GROUP ABOVE 60: -

There were 10 people who fall under this age group when the survey was conducted. All of them are retired professionals. All these respondents belong to the Western Suburban Mumbai region. Some of them are from Malad, Kandivali, Borivali, Dahisar and Mira Road.

Q.) Do you think that the Online Banking System is safe? Yes/No/Maybe/Can't Say/Don't Know



FINDINGS:

1. Yes – 10%
2. No – 30%
3. Maybe – 10%
4. Can't Say – 20%
5. Don't Know – 30%

ANALYSIS:

From the above doughnut diagram, it is known that 10% of the respondents' view that Online Banking System is safe. 30% of the respondents have pointed out that Online Banking System is not safe. 10% of the respondents answered that Online Banking System may be or may not be safe. 20% of the respondents stated that they are not sure about the Online Banking System being safe or not. 30% of the respondents don't know whether the Online Banking system is safe or not.

CONCLUSIONS: -

The Questionnaire for the Survey was circulated among different age groups of people ranging from 15 years of age to Senior Citizens. The questionnaire was also circulated to both Males and Females of different age groups. The respondents included students from schools and colleges, training institutes, Salaried employees of Private and Government sectors, Bureaucrats, State Government employees, Professionals such as Doctors, Lawyers, engineers, Retired senior citizens. The questionnaire forms were distributed in person and were requested to fill-up. Almost all of the persons filled-up the questionnaire spontaneously. However, some of them persons wanted some time to fill-up.

However, the analysis of the survey managed to find out two different aspects from the respondents and the third to enhance their knowledge about the risk and the reasons for the risk related to the Online Banking System.

1. To assess the basic knowledge on the subject from the persons.
2. To also the assess the knowledge of risks, reasons for the risks involved in the Online Banking System as well as the problems faced by them individually.
3. To provide an insight and also to create an awareness among the people for the need to protect the Online Banking System while using it on a personal level.
4. It was interesting to note that several persons were not much aware of the Online Banking System. This survey was therefore very valuable to not only assess the general awareness of the persons at large, but also to provide an insight into the importance and need to protect Online Banking System at individual levels first and then at large. From this whole research project, we have learnt a lot about Banks such as its meaning, origin, history, etc. More of the focus was on the Online Banking System. The start of online banking system, its operation, features, advantages, disadvantages and above all the problems faced by the individuals due to this system and the

main focus was on the people residing in the Western Suburban Mumbai Region.

SUGGESTIONS: -

The few suggestions that I would want to give are stated as follows:

1. Create an awareness about the Online Banking System as in its uses, operation, advantages and disadvantages, risks involved and the problems faced.
2. Help the individuals when they are stuck up while using the Online Banking System.
3. Even though you won't be an expert but try to solve the problems that the opposite person is experiencing while using the Online Banking System.
4. Educate the need and importance to protect the Online Banking on an individual basis.

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Sustainable Development in Commerce and Management & It's Impact on Indian Economy

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ABSTRACT:

Today we are living in the edge of immensely competitive world. There is a vast competition is continuously going on in each sector. Everybody want to keep itself updated by acquiring authentic knowledge, adapting latest technology and framing a micro dynamic and strategic planning for their continuous progress. These all the above views come in a word a sustainable development - a perfect way to make every one strong enough to accept the difficult challenges.

Indian economy is relying on three sectors. These sectors are called as three pillars of Indian economy i.e. Agriculture Sector, Industrial Sector and newly introduced Service sector. All these sectors are directly or indirectly involve with the sector of Commerce and management. Because Commerce is the field which includes exchange of goods and services from the producer to the consumers, trading, big and small industries, digital marketing, e-commerce business, m-commerce business, banking sector, insurance sector, various Liberalization, Privatization and Globalization policies of government to boost up the national and international trades. It gives the major contribution in Indian GDP. Moreover it is the main sector who offer the more opportunities of employment in various disciplines of commerce viz; advertising, marketing, sales, transportation, tourism, research and development, consumer care, industrial environment, human resource development, general insurance etc. That's why it is very necessary that there must be strategic planning along with dynamic initiatives should be done to make all over sustainable development of commerce.

Along with commerce it is today's need that, there must be the lot of strong steps to be taken for the sustainable development in the field of Management. As it is closely related with the commerce, its importance in Indian economy is continuously growing up. Because without making management of anything if we want to complete the specific work, the possibilities of unsuccessfulness of that work is rises. So, government should chalk out the initiatives in such a way that the percentage of weaknesses of commerce and management sectors should be declined and the new positive output should be raised. It should be beneficial for the Indian economy

Keywords: GDP, cutthroat, entrepreneur, brain drain

Introduction:

After independence India has become republic on 26th January 1950 while first five year plan was existed in 1951. The main motto of this plan is to develop the primary sector i.e. agriculture sector. Out of the total planned budget of around 2.30 crores the agriculture and community development was allotted 17.4% while the Industry was allotted only 8.6%. It means that the total allotted amount for agriculture and community is double than the allotted amount of the Industry. First five years plan was completely resist on the assumption that, India's most of the population is depend on the agriculture. So it was necessary to develop the agriculture sector. When they realize that, unless and until India will not given the first priority to the Commercial or Industrial sector it is not possible to make economic progress. In the second five years plan (1956-1961) government has focused its full concentration on industrial growth by providing long term loans to establish the big industries. In this plan many Iron and steel plant was established in various parts of the country.

At the end of eighth the five years plan, Indian GDP rate was vastly declined, foreign exchange reserves was declined and crisis of balance of payment was also emerged. The former Prime Minister P.V. Narsimharao and the great economists of India Dr. Manmohan Singh have completely changed the scenario of Indian economy by taking the most challenging decision. They established the new economical reform LPG concept i.e. Liberalization, Privatization and Globalization. Some of those efforts are controlling of foreign exchange, reducing import duties, encouraging Foreign Direct Investment, capturing the international markets, boosting the digital transactions i.e. online process of all type of work rather than manual one etc. This concept has really made a very rapid progress in the growth of Indian economy viz; the total yearly percentage of foreign direct investment has highly raised, the winds of inflation was started flowing, heavy raise of industrialization, increase in foreign exchange reserves, India has become a member of WTO in 1995 etc. Some other initiatives were made by Indian government for sustainable development in commerce and management is Make in India campaign, Skill India campaign, expansion of

Industries and Industrial banks, expansion of financial institutions, expansion of Tourism industries, the maximum use of available natural resources, green auditing to protect the environment, compulsory maintaining record of corporate social responsibility, etc.

Objective of the study:

The objective of the study is to know the sustainable development in India held due to extreme work by commerce and management sectors.

Hypothesis:

‘Commerce and management scenario has given the major contribution in sustainable development of Indian economy.’

Research Methodology:

The data collected for this study is taken from secondary sources.

Contribution of sustainable development in commerce and management:

Commerce and management are the two main sectors of Indian economy. There are lot of aspects are already available by which we can prove this statement. Some of those are already discussed earlier in this study. Other important aspects of commerce and management scenario are also very important. It is very necessary to discuss these aspects in detailed manner.

Industrial sector is one of the major aspects of commerce and management. Before independence all the Indian industries was under control of British government. No entrepreneur was having power to take their own decisions. In simple sentence we can say that, production, packing, branding, pricing, transporting, wholesaling, retailing, consuming etc. are the major marketing functions which was completely governed by British government. India is a country having second highest population in the world. Every year there are infinite students who pass out their bachelor and post graduation degree in regular or higher education courses. But the fact is that as the percentage of the growth of Industrialization is lower than growth of population, it is not possible to provide job opportunities to such a huge strength of passed out students.

Now as per the conceptual change most of the students are prefer to start their own production industry instead of waiting for the long time to get the proper job as per their qualification and expectations. There are many financial institutions that provide loan facilities to start their own business or industry. It is very necessary to take a glance on their yearly transactions made in the financial year 2020-21.

Indian youths prefer to establish at least small scale industry in an availability of small finance. The government supports them by giving training through the projects like District Industries Centre. District Industries Centre (DIC) is a scheme of central government. The main objective of this scheme is to develop small villages by providing them short term loans to start the small scale industries like handicrafts, silk and coir industries etc. As per the rules and regulations as well as the legal aspects made by the Indian government, it is necessary to establish district industry centre in each district of each state. Today there are lot of schemes chalked out by the district industries centre. Some of these schemes are Seed Money Scheme, Entrepreneurship Development Training Program and Prime Minister's Employment Generation Program etc.

The following chart shows the total numbers of District Industries Centers in few major states;

Table No. I

State	Number of District Industries Centers (DICs)
West Bengal	10
Odisha	31
Gujrat	32
Maharashtra	33

Diversion of the Roads is also a very important aspect of today's modern industries. Today the situation has completely changed. Due to long highways and cement concrete roads, the transportation of goods is become so easy. This is one of the important factors related to sustainable development.

Continuous increasing colleges of business studies related with the higher education is also one of the important factor related to Indian industrialization. Before some decades the institutions of the business studies was very low. As per increasing industrialization those institutes along with Commerce education with diversified authentic specialization subjects are also increased. There are many renowned Commerce and Management Institutions in India in which even the students from the other countries come for learning. Most of the Indian students after pass out their Master degree in Business Administration have acquired the better position in their jobs. According to NIRF ranking 2021 MBA colleges list of top 10 is as follows:

Table No. 2

Rank No.	Name of the College	Total Score	Ranking
1	IIM, Ahmdabad	83.69	

2	IIM, Bangalore	83.48
3	IIM, Calcutta	80.04
4	IIM, Kozhikode, Kerala	73.34
5	IIT, Delhi	72.15

All the above colleges are having their own placement cells and also give a golden opportunity by providing a much respected jobs for the students who want to develop their skill and having passion to acquire the better positions.

Today's world is known as the world of authentic Technology. In this world now the traditionalism is continuously diminishing. E-Commerce is one of the latest technology emerged before few decades. Today there are various e-commerce companies established to give online services to their customers. Due to these companies it is now possible and become very easy for each and every customer to purchase the product in one roof. As the percentage of computer literate people is continuously increasing in India, even the middle class as well as upper middle class along with the peoples of average income group are giving their first priority to purchase their products through digital way i.e. through e-commerce.

Even after independence the monopoly of the retailers was not completely stopped. Everybody was thinking that, there must get a legal protection to the most important factor of the marketing i.e. Consumer. Bindu Madhao Joshi is the first person who protests against this exploitation of consumers. He make more campaigning and started consumer movement in large extent in early 80's. By leaps and bounds after about one decade Indian government deeply realized that, unless and until the consumers are not protected, it is not possible to stop their exploitation. That's why 'Consumer Protection Act' was established on 1st October 1986; the act was passed in assembly and came into existence on 24th December 1986. This act was amended in 2019 and 2020.

According to Consumer Protection Act 2020, for the purposes of preventing unfair trade practices in e-commerce, the central government protection (E-Commerce) rules, 2020 with effect from 23rd July 2020.

Due to protection of the consumers from the exploitation of e-commerce companies we can say that, the consumers are now fully protected. It is so because today most of the Indian consumers are prefer to purchase the product from e-commerce companies. In short, now all the e-commerce companies have restricted to give the proper delivery of the proper product to the proper person

by proper protection and by proper service of guarantee and warrantee

Testing of the hypothesis is the next step of this research study.

Testing of the Hypothesis:

In this research study following hypothesis is taken;

'Commerce and management scenario has given the major contribution in sustainable development of Indian economy.'

India is a developing country. Our country is under British rules for about 350 years. After independence the real progress of free India was started. Indian government gave more emphasis on the development of Industrialization. Today India's GDP is having more contribution of Industrialization. The establishment of the new economical reform LPG concept i.e. Liberalization, Privatization and Globalization is come into existence in early 90s. This concept has totally made the revolution in the Industrial growth. LPG really has given the opportunity to develop our Industrialization in global competitive world. District Industrial Centre (DIC) is another one of the important tool of sustainable development. Because they provides the proper training along with the loan facility to the students who are successfully passed out the training program. The renowned institutions like Indian Institute of Management (IIM) and Indian Institute of Technology (IIT) are the institutes provide the better job placement through campus interview. India's e-commerce business is continuously increasing. After a Covid-19 Pandemic this business has spread its wings of development in the whole country. Up to 2025 the e-commerce business will grow about 188 U. S. Dollars. This is the golden chance for Indian youths now to start the e-commerce business. The above information indicates that there is a sustainable development of Indian economy which is emerged from Commerce and Management sector.

By the above information it is proved that, the hypothesis taken earlier in this research is true.

Conclusion:

Indian economy is based on three sectors. These sectors are agriculture sector, industrial sector and service sector. These sectors are called as three pillars on which the whole Indian economy resists. Among these sectors most important sector is industrial sector which is commonly called as Commerce and Management sector. This sector is continuously making a major contribution in the Indian Gross Domestic Product (GDP). Increasing number of financial institutions, Liberalization,

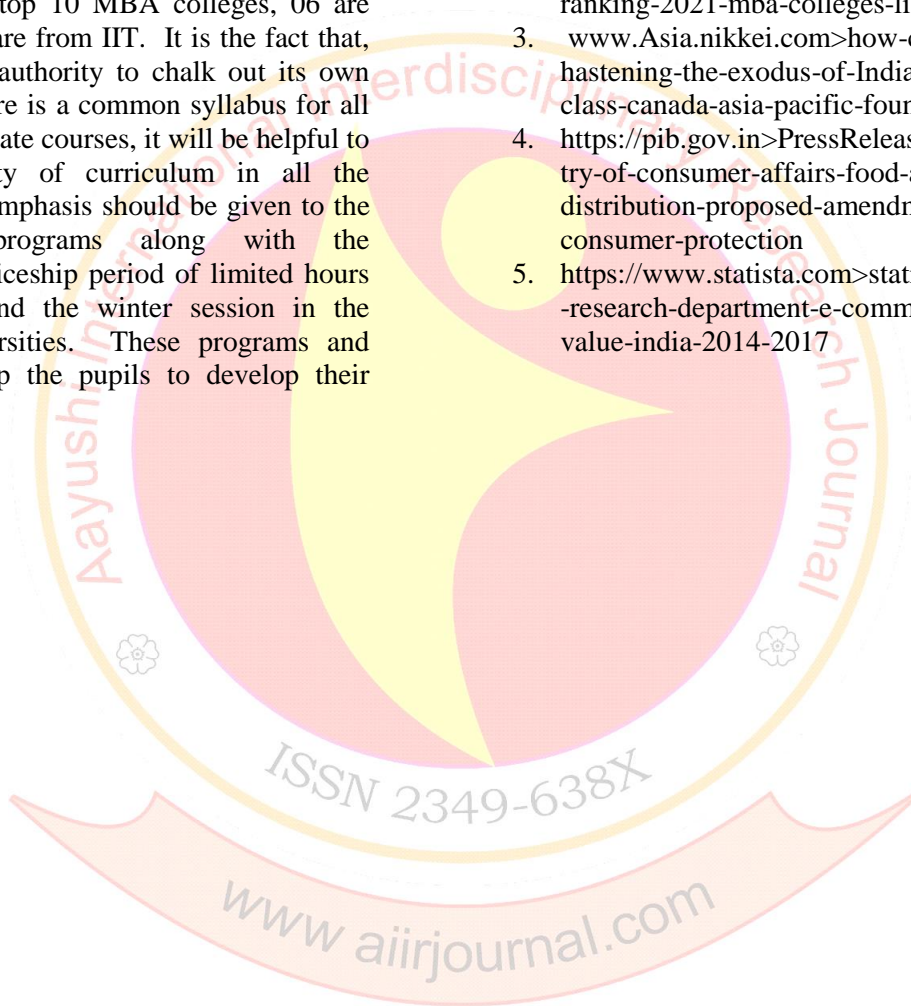
Privatization and Globalization (LPG) policy framed by Dr. Manmohan Singh greatly supported by P.V. Narsimharao government due to which India is successfully made the great growth in Industrialization, continuously increasing number of higher education institutes like IIM and IIT, continuous success of e-commerce business in India are some of the factors indicate that the sustainable development of commerce and management streams are continuously increasing. The Indian government should make the more initiatives for the all over sustainable development of our country and ultimately for our economy.

Curriculum aspect is one of the important factors which should not be neglected. As earlier said if we see the top 10 MBA colleges, 06 are from IIM while 03 are from IIT. It is the fact that, every university is authority to chalk out its own syllabus. But if there is a common syllabus for all the subjects in graduate courses, it will be helpful to improve the quality of curriculum in all the universities. The emphasis should be given to the entrepreneurship programs along with the compulsory apprenticeship period of limited hours in each summer and the winter session in the colleges and universities. These programs and training should help the pupils to develop their

entrepreneurial qualities which will definitely helpful for country's industrial growth. If we do so, in real sense the sustainable development in the commerce and management scenario will be possible and will definitely be helpful to boost up the Indian economy. By this the dream of former president of India Dr. A.P.J. Abdul Kalam to see our country a superpower of 21st century will definitely prove to be true.

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“Innovation and Research in Pharma sector in order to Sustain in Changing Global Scenario”

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ABSTRACT

In 2022, the Pharmaceutical sector in India underwent a transformation from a volume-creator to a value-provider. Covid presented the Pharmaceutical industry with a significant opportunity. Government of India is in forefront for health care innovation and growth. Government in its Union Budget 2023 announced new programs and goals to continue leading from the front. India leads globally in vaccine production and is the largest producer of generic medications, accounting for 20 per cent of the total worldwide supply by volume. Pharmaceutical manufacturing is the process by which Pharmaceutical manufacturing companies create Pharmaceutical drugs under constant pressure to accelerate innovation and quicken the pace at which they release successful medications into the market. By enabling previously unachievable improvements in patient health (net of treatment risks), Pharmaceutical innovations add value to society. The distinctiveness of these health advancements is what distinguishes Pharmaceutical innovations. The Indian Pharmaceutical sector has a bright future in 2023, with a stronger emphasis on high-quality production, reasonable drug prices and the adoption of innovation and technology. Innovation in advanced biologics and cell and gene therapies promises to transform lives and multiple players including start-ups and academia will help sustain growth in this space. This new technology will concentrate heavily on personalised medicine in the upcoming months. Today we are living in a dynamic world where day in and day out there are several new innovations. Research & Development in Pharma industry is of immense importance as it enables the companies to bring new and innovative products into the market and thereby achieve profitability by further enhancing the market share. The importance of the research and development has well been established and the Pharma companies are consciously investing in it.

Keywords: Innovation, technology, Govt. initiative, personalized medicines, R&D

1. Introduction

During the years 2020-2022 India has faced an unprecedented Corona Virus Pandemic when the Government of India as well as the Indian Healthcare Industry had the toughest time. At the same time this is the period when the Pharma Industry particularly the Research and Development activity of the Pharma industry had an opportunity to prove its capability in innovating a vaccine to arrest the Corona virus attack. India was a leading innovator of the vaccine to fight the Covid -19 virus successfully. India has proved its capability in innovating the vaccine to fight against the Covid pandemic in a record time and not only that it could come out with its commercial production and even exported this much needed vaccine to various other countries including the developed countries. The objective of this paper is to underline the importance of the innovation in attaining sustainable development of the Pharma industry in the times to come.

2. Current status of Indian Pharma Industry – 2023

In 2022, the Pharmaceutical sector in India underwent a transformation from a volume-creator to a value-provider. Covid-19 pandemic presented the Pharmaceutical industry with a significant challenge. The biggest challenge for Indian and

international Pharma was identifying the disease and then developing a medication for it. However, the Indian Pharmaceutical sector saw it as an opportunity and developed vaccines that prevented millions of deaths. Indian Pharma has already won over the admiration of top global decision-makers with its potential to lower barriers to drug affordability and accessibility. Research and Development is highly valued in the Indian Pharmaceutical industry. India has become a global medical giant by developing its R&D ecosystem and raising Pharmaceutical exports, according to predictions for 2022. The pharmaceutical sector has experienced rapid growth in recent years, and the outlook for 2023 is still favourable.

3. Government Initiative in Budget 2023

Government of India is in forefront for health care innovation and growth. Government in its Union Budget 2023 announced new programs and goals to continue leading from the front. India leads globally in vaccine production and is the largest producer of generic medications, accounting for 20 per cent of the total worldwide supply by volume. For innovation in the Pharmaceutical sector, through centres of excellence, a new initiative to encourage Pharmaceutical research and innovation will be implemented. The Government persuades business to spend money on R&D in a few chosen priority fields. The digitalisation, innovation and Research & Development in the

Pharma sector will help India maintain its leading role globally.

The Indian Pharmaceutical sector has a bright future in 2023, with a stronger emphasis on high-quality production, reasonable drug prices, and the adoption of innovation and technology. In the future, regulatory simplification, increased industry-academia collaboration, and a strengthened innovation mindset will be crucial to success.

Government initiatives like Pradhan MantriBhartiya Jan AushadhiPariyojana and Ayushman Bharat Yojana under the National Health Protection Scheme (NHPS) will among other things contribute to the growth of the Pharmaceutical industry in India. The PLI Scheme was one of the most notable actions taken thus far in an effort to support domestic production of APIs, Key Starting Materials (KSMs) and Drug Intermediaries in India. The Pharmaceutical sector has always invested heavily in R&D.

One of the most distinctive traits of the Pharmaceutical industry is continuous innovation. The development of new drugs may be essential for preserving human life's quality or even length. The business process of drug innovation necessitates astute managerial, organisational, and strategic choices. It is already receiving extensive research attention, leading to a wealth of information about the mechanisms underlying drug discovery and development, though it is widely dispersed. Research & Development in Pharma industry is of immense importance as it enables the companies to bring new and innovative products into the market and thereby achieve profitability by further enhancing the market share. The importance of the research and development has well been established and the Pharma companies are consciously investing in it.

4. Prospects for Pharma Industry

According to experts, the year 2023 will be promising for India's Pharmaceutical sector, with a stronger emphasis on high-quality manufacturing, drug affordability, and the adoption of innovation and technology.

According to a recent EY FICCI report, the Indian Pharmaceutical market is predicted to reach \$130 billion in value by the end of 2030 due to a growing consensus regarding the provision of new, innovative therapies for the patients. In the meantime, it is predicted that the size of the global market for Pharmaceutical products will surpass \$1 trillion in 2023.

Innovation in advanced biologics and cell and gene therapies promises to transform lives, and

multiple players including start-ups and academia will help sustain growth in this space. In the year 2023, the primary focus is to promote research and innovation in the country. The Pharmaceutical industry witnessed the normalisation of trends that emerged in the last three years. Remaining cautious of the simmering issues from Life-changing advances in advanced biologics, cell, and gene therapies are on the horizon, and a variety of players, including start-up companies and academic institutions, will support the industry's continued expansion. The Government of India wants to encourage research and innovation in the nation in 2023. In the past three years, trends have become more common in the Pharmaceutical industry. It is necessary to increase our country's R&D investments in order to move up the value chain while remaining aware of the simmering issues on various fronts around the world. Additionally, because there is an increasing demand for strong intellectual property (IP) laws and rights, the industry must work to align the regulatory standards with those of other countries. The Pharma industry must prepare to move up the value chain by scaling up the R&D investments, considering the rising need for robust intellectual property (IP) law and rights, it needs to work towards harmonizing the regulatory requirements to global standards.

The Pharmaceutical industry in India is estimated to be worth \$50 billion by Government estimates, with over \$25 billion of that value coming from exports.

5. Importance of Innovations in Changing Global Scenario

Pharmaceutical Manufacturing is the process by which Pharmaceutical manufacturing companies manufacture Pharmaceutical drugs under constant pressure to accelerate innovation and quicken the pace at which they release successful medications into the market. By enabling previously unachievable improvements in patient health (net of treatment risks), Pharmaceutical innovations add value to society. The distinctiveness of these health advancements is what distinguishes Pharmaceutical innovations.

6. Challenges before Pharma Industry

Workforces in the Pharmaceutical sector must possess significant scientific Pharma knowledge, experience and skills. Other important aspect is loss of an incredible amount of funding for research, drug development, and research, as new drug approvals are dependent on successful trials. One of the biggest problems facing the

Pharmaceutical industry is the unprecedented disruption that supply chains have experienced globally. Pharma companies will depend more on technology in 2023 to enhance their supply chain management. A major challenge for this industry will be its supply chain management. The emphasis is shifting away from treatment and towards prevention. Finding treatments for currently incurable diseases like Alzheimer's as well as other critical and life threatening diseases like cancer and epilepsy has always been the challenge for the Pharmaceutical industry, which however, through its continuous ongoing research activity is determined to come up with the necessary solutions.

7. Conclusion

During Covid – 19 pandemic we have witnessed that there were several new variants of the virus that surfaced in a very short time. Every variant brought in varying severity which was at times much more severe than that of the previous one. Vaccination against the Covid – 19 virus was desperately needed to counter the pandemic, for which the Research and Development Departments of the Pharmaceutical industries were putting round the clock efforts. This underlines the need for innovations to arrest various healthcare hazards. Today we are living in a dynamic world where day in and day out there are several new innovations. The importance of the research and development is well established and the Pharma companies are consciously investing in it. It will certainly have a sustainable impact on the Pharma industry.

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Financial Role in Atmanirbhar Bharat

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ABSTRACT:

The incidence of Covid-19 pandemic in India has affected the Economy of India to the highest extent anyone could ever see causing damage to almost all the Service sectors. Suddenly, due to the lockdown declared by the Government of India, the economy had come to the stage of Stand Still. Therefore, to boost the confidence of the common population of almost all the sectors, the Hon'ble Prime Minister announced a package which is said to be equivalent to 10 percent of GDP. It is based on Five main pillars namely Economy, Infrastructure, Information Technology, Vibrant demography and Demand that serve as foundation for a self-sufficient India. As technology driven systems are one of the pillars in the mission Atamanirbhar Bharat, it becomes accountability of the Science fraternity as well to analyse critically the insights of Atmanirbhar Bharat Abhiyan with Scientific approach. The paper elaborates the importance of the Five Pillars and evaluates critically with a scientific approach behind the various aspects of the Mission Atmanirbhar Bharat.

Keywords: Covid-19, Atmanirbhar Bharat Abhiyan, Self-sufficient, Business Innovation, Economy, GDP

1.1 Introduction:

P rime Minister Shri Narendra Modi has announced the 'Atmanirbhar Bharat Abhiyan' (Self-reliant India Movement) on May 12, 2020 with a special economic & complete package of Rs 20 lakh crores which was aimed towards achieving the mission. The Mission focuses on the importance of promoting local products. The mission is also expected to complement "Make in India" initiative which intends to boost manufacturing in India including agriculture sector which have a great potential. Agriculture plays a very vital role in Aatmanirbhar Bharat. With a motive to transform the Agriculture into a Sustainable Enterprise, Government of India, Ministry of Agriculture & Farmers' Welfare has recently taken a host of historical pro-agriculture landmark initiatives towards the development of Aatmanirbhar Krishi in India by implementing landmark reforms on 5th of June 2020, for the benefit of farming community. With the aim to reach the farmer & transform the way they sell their Agri-produce, e-NAM had enlarged to 1000 mandis of 18 States & 03 UTs. Under the new FPO trade Module, FPOs are doing trade from their collection centres through e-NAM platform. This online market aims at reducing transaction costs, bridge information asymmetries, and help in expanding market access for farmers. Aiming towards "One Nation One Market" for agricultural commodities in India, e-NAM has made revolutionary change to the traditional agri-business in the country emerged as a ready solution to farmers & other stakeholders to conduct their business. With its value-added services, e-NAM has emerged as much more advanced and robust platform. Government has announced a new scheme for Formation & promotion of 10,000 FPO's. Collectivization of small and marginal

farmer to form their organization as Farmer Produce Organization has been another major initiative by Ministry of Agriculture and Farmer Welfare for making Krishi Atmanirbhar. This will prove to be the most effective and appropriate institutional mechanisms to reduce the cost of production, increase productivity and facilitate better marketing linkages to enhance their net income. This will not only help to augment the income of farmers but will bring a paradigm shift at grass-root level towards Atmanirbhar Bharat.

The salient features of the scheme are as follows:

- Scheme will be focused on the concept of "One District One Product" to promote formation of value chain, processing and export.
- SFAC, NCDC & NABARD have been chosen as the implementing agencies.
- Minimum number of members to be 300 in plain area, while 100 in North- East and Hilly areas
- Agriculture Value Chain Organization forming FPOs and facilitating 60 % of market linkages for members' produce, then FPO management cost can be reimbursed.
- FPOs will be registered either under Companies Act or any State Cooperative Societies Act as decided by Members of FPO
- 15 % of the targeted FPOs are to be formed in Aspirational Districts & formation of FPOs is to be prioritized in notified Tribal areas.
- Implementing Agency (IAs) will engage professionally managed Cluster Based Business Organization (CBBOs) to form, register and promote FPOs.

1.2 Advantages of Atmanirbhar Bharat Abhiyan:

- Liquidity infusion and direct cash transfers into the accounts of labourers and daily-wage earners are helpful for their survival during the lockdown
- Long-term modifications in critical sectors keep them globally competitive and attractive
- Substantial growth in the e-Commerce industry
- Lots of employment opportunities soon in the country
- Reduction in scarcity for medical supplies and food grains

1.3 Purpose of Atmanirbhar Bharat

The people of India have by now come to expect the announcement of a new programme from the government at periodic intervals. Thus, in the past six years, we have had Make in India, Swachh Bharat and Less Cash. Now there is something larger, a goal. In his address to the nation on May 11, Prime Minister Narendra Modi called for an Atmanirbhar Bharat. Actually, self-reliance was the stated goal of economic policy in India in the early years after 1947. The architect of this plan was Jawaharlal Nehru, whose record as prime minister – especially economic – intellectuals associated with this government have trashed relentlessly. Now, over half a century after his death, the fulcrum of his vision for India has been ceremoniously brought back with nary an acknowledgement. Both the facts of economic development across the world and advances in the methodology of empirical research would help us make sense of the economic policies of early independent India. History suggests that India did not pursue a strategy entirely out of line with what was adopted elsewhere. More importantly, we have evidence that growth here first accelerated in the early 1960s. This could only have been a consequence of the policies adopted in the earlier decade, notably the 'Nehru-Mahalanobis Strategy' of investing in capital goods production via newly formed public enterprises. This evidence cannot be jettisoned easily. It is based on a statistical procedure that is free from the predilections of the practitioner. It conclusively disposes of the stance that nothing really changed in India after 1947, a view once held at both ends of the political spectrum but now the preserve of the right-wing. The same procedure also reveals that growth did not accelerate after the Modi government has come to power. However, while we know that the 1950s were literally path-breaking, we also know that the

performance of India's economy has for far too long left much to be desired. This is apparent when we look to our east, where all countries have surged ahead of us, raising national income and spreading it widely. We also know exactly how this has been achieved. Even as they had accumulated physical capital, our East Asian counterparts developed their human resources. The question staring at us is why a society with a highly educated elite in power failed to observe this as development played out over decades.

1.4 How Is Atmanirbhar Used In Economy?

Prime Minister Narendra Modi's call for an "Aatmanirbhar Bharat" (self-reliant India) is an important initiative, the International Monetary Funds (IMF) said. "The economic package under this self-reliant India initiative, which was announced in the aftermath of the coronavirus shock, has supported the Indian economy and mitigated significant downside risks, so we do see that initiative as having been important," Gerry Rice, Director, Communications Department, IMF, Looking ahead, as the prime minister has said, for India to play a more important part in the global economy, pursuing policies that stimulate by improving the efficiency and competitiveness of the economy is critical, he said, responding to a question on Modi's call for an "Aatmanirbhar Bharat". "To achieve the stated 'Make For The World' goal in India, the priority is to remain focussed on policies that can help further integrate India in the global value chain, including through trade, investment and technology,". The IMF's joint study with the NITI Aayog and the Ministry of Finance shows that to achieve a high performance in health-related sustainable development goals, India would need to gradually increase its total spending in the healthcare sector from the current 3.7 per cent of the GDP. Rarely does it happen that one policy benefits multiple sectors. It's not only about promoting domestic products and increasing value of the home currency, but also about realising the true potential of Indian brands and making them global. This booster shot is the Centre using a certain percentage of the GDP and proportionately distributing the amount across a variety of sectors of industry and society. What is also interesting is the manner in which the idea of a self-reliant India has resonated with the citizens of the country. It appears that the government has been successful in awakening patriotism in its citizens in order to boost demand for local-made products. India is today transitioning from a situation where it opened its doors to liberalisation and globalisation to one where it has to rearm itself to become a competitive

manufacturing hub, a self-reliant country that can face war and pandemics, and a comfortable investment destination where the world can relocate to capitalise on its huge and talented manpower and geographic advantages. One cannot look at it as a crude strategy to close down China and replace it with India. It is more of a strategy to make India equally attractive, to make the world believe in the regulatory stability in our country and to revive the nation and truly put it in on the world map.

1.5 Aims of Atmanirbhar In Financial Economics

Atmanirbhar Bharat Abhiyan involves fiscal policy and relief measures for various industries as the economic consequences of the pandemic have left no sector untouched.

Some of the objectives of this package are:

- The main aim is to reduce unemployment, insolvency, and poverty and to increase India's per capita GDP and the purpose is to make Indian Economy stronger and to promote local products in India as well as all over the world.
- To provide debt to MSME promoters, who can, in turn, infuse the money as their equity in the enterprise and the interest rate will be capped (Rs.3 Lakh crores loans is the emergency credit line for MSME's).
- To protect the Indian ventures from foreign competition and boost the agenda 'MAKE IN INDIA' and self-reliance by disallowing the global tenders in procuring government tenders up-to Rs.200 crore.
- The scheme has announced a reduction in TDS and TCS rates. The rates of Tax Deduction at Source (TDS) for the non-salaried specified payments made to residents and Tax Collected at Source (TCS) will be reduced by 25% from the existing rates. This reduction will apply from May 14, 2020 to March 31, 2021. This is estimated to provide liquidity of Rs 50,000 crore.
- The government will provide Rs.4,000 crore to Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE), which will, in turn, provide partial credit guarantee to banks.

1.6 Corporate Innovation For Atmanirbhar

The real vision of Atmanirbhar Bharat would be achieved when each stakeholder in the larger socio-economic ecosystem of the nation viz. corporations, academic and research institutions, civil society and the government can collectively

contribute. The COVID-19 pandemic and the expansionist tendencies of China as witnessed on the borders have created a situation where it has become imperative for India to reduce dependencies on global supply chains, and focus on creating innovation and entrepreneurial ecosystems that would lead to economic and technological self-reliance and self-sufficiency through home-grown success stories. While these are possible, they would take time, as a lot of ingredients that would contribute to them are in the making. There are four such game-changing ideas developed over the two decades, the likes of which could help achieve success in several aspects of the vision of Atmanirbhar Bharat. Adult Literacy Programme: Through teaching software, multimedia presentations, and printed material, the Computer-based Functional Literacy Programme developed by TCS in 2000 taught a person 3Rs – Read, write and basic arithmetic, in one among nine Indian and three foreign languages within 50-55 learning hours at a cost of just Rs.500 per person. This was enough for everyday requirements, such as reading destination signs on buses, legal/bank documents and even newspapers. It was recommended for deployment as a National Mission in India's XI th Five Year Plan (2007-2012), but not implemented at the desirable scale. In two decades, only a million people have benefited from this Programme, when the number of adults who cannot read and write stands at nearly 266 million. Tech-Enabled Quality Primary Education: Gram-Maitra, a multimedia-based asynchronous interactive remote teaching technology developed by TCS had the capacity to deliver high quality teaching to lakhs of primary schools. It focused on providing high quality education to students in rural and underprivileged areas using DTH (for multilingual video lessons) and internet technologies (for interactive Q&A sessions between students and teachers). With an estimated equipment cost of Rs 17,500 per classroom, a state enrolling 100,000 primary schools in the system could avail of this facility through an annual subscription of Rs 140 crore. By 2016, nearly 363,000 schools were covered under the Sarva Shiksha Abhiyan, the government's flagship Programme for elementary education, with an annual outlay of about Rs 20,000 crores. Yet, learning outcomes were falling with every passing year, averaging around 42%. Bioinformatics for Drug Discovery: In 2007, President Abdul Kalam launched Bio Suite, a bioinformatics product aiding drug discovery developed by TCS in collaboration with 18 leading Indian institutes. Given to R&D institutions in India at a nominal price of Rs 49,990, it became a

success in the global market, particularly among the start-up biotech companies and drug discovery firms. By 2023, the global bioinformatics services market is expected to reach \$3.53 billion. AgroAdvisory System: M-Krishi, an agro-advisory system for farmers, launched in 2009, provided services such as weather forecasts, pesticide, and fertilizer advisory. It allowed farmers to use ICT for solving farming challenges through personalized advice in their local language. For those using the service, field efficiencies resulted in over 40% increase in yield, and over 10% reduction in pesticides and fertilizer usage. A decade after its launch, the M-Krishi app has benefitted only a million farmers when the total number of people in the agriculture sector is over 500 million. The diversity of these research projects was impressive. They provided much-needed, affordable and implementable solutions to India's complex problems. Some of these seem so relevant during the current pandemic. To ensure sustainability of such initiatives, TCS did not work on them as CSR projects. Some of these innovations had the potential of providing commercial usage. While working towards an Atmanirbhar Bharat, governments will have to leverage such disruptive socio-economic innovations and interventions in long-term national interests. This would not be possible in isolation but through collaborative execution with diverse stakeholders including corporations that have the best national talent and immense resources to experiment with ideas.

1.8 Atmanirbhar Bharat App Invention Challenge:

Days after government banned 59 Chinese apps; the Ministry of Electronic & Information Technology in partnership with Atal Innovation Mission- Niti Aayog has launched Digital India Atmanirbhar Bharat App Innovation Challenge for Indian tech entrepreneurs and start-ups. Launched and Promoted by Prime Minister Narendra Modi the Innovation Challenge has been made available on my gov website from July 4. The objectives are to support and build a strong ecosystem for Indian apps and help realise the vision of PM Modi for building a Digital India and using Digital Technologies for building on Atmanirbhar Bharat. The App Innovation Challenge includes the promotion of existing apps as well as the development of new apps. Categorised into two tracks, the Track 1 Innovation Challenge will identify the best Indian apps that are already being used by citizens and have the potential to scale and become world -class apps in their respective categories. To be completed in a month, this

Innovative Challenge with cash awards and incentive of featuring on leader boards seeks to create an ecosystem where Indian entrepreneurs and start-ups are incentivised to ideate, incubate, build, nurture and sustain technology solutions to serve Indian citizens as well as their world. The Mantra is to make in India for India and the World. Track 1 has been categorised including office productivity and work from home, social networking, e-learning, entertainment, health and wellness, business including agrotech and fin-tech, news and games. Subsequent to this App Innovation Challenge, government will also launch of the Atmanirbhar Bharat App Innovation Challenge that will seek to identify Indian start-ups, entrepreneurs, companies and encourage them with ideation, incubation, prototyping and roll out of applications. In a post published on LinkedIn, Prime Minister spoke about the vibrant tech and start up ecosystem in India. He said that there is a lot of enthusiasm among the start-up and tech ecosystem to innovate, develop and promote home grown apps. This challenge will be jointly hosted by the government and members of tech community to make it more holistic. Prime Minister shared ideas and asked if technology can help make traditional Indian games more popular, if apps can be developed to help people in rehabilitation or getting counselling or if apps with targeted and smart access to the right age group for learning, gaming, etc. can be developed. He urged the tech community to participate and help create an Atmanirbhar App Ecosystem. "Everyone believes in the ability of Indians to innovative and present solutions and when there is a feeling of dedication and compassion then this power becomes limitless. At the beginning of this month, the country's youth were given an app innovation challenge," said PM Modi during his monthly "Mann ki-Baat" programme. The Prime Minister continued saying that for an Atmanirbhar Bharat and nation's future, this is a good indication. After much scrutiny, about two dozen apps were awarded in different categories. You must learn and connect with these apps, he added. Prime Minister cited examples of various apps saying, "One of these apps is the Kutuki Kids Learning App. This is an interactive app for small children in which kids can learn a lot about Math and Science through stories and songs. It also contains activities and games." "Similarly, there is an app for micro blogging platforms. It is called Koo, through which we can communicate and interact through text, audio and videos in our mother tongue. Similarly, Chingari app is gaining popularity amongst the youth," he added. "There is one more app-Step Set Go which is a fitness app. It

keeps all records of how much you walked, how many calories you burned. It also motivates you to stay fit. Many other apps have also won this challenge including many businesses, games apps," he said. "You also come forward, innovate and implement something. Your efforts in today's small start-ups will transform into global conglomerates tomorrow and make a mark for India," he added.

Conclusion:

The government by starting this operation has ran a true Swadeshi movement and resonates with Sangh's philosophy to enrich and reform Indian products. However, in the quest to attain a self-contained India, it is necessary for the government to decentralize its policies, take decisions for rural crowd and labour's, keep poor and underprivileged at priority, make environmentally friendly policies that are rooted to make India and a self-sufficient nation globally. In

history, when India believed in the Gandhi's model of self-reliance, wonders happened. He articulated it as a social linkage and mutual co-operation in a society. On the contrary today, a virus has violated our independence, but we all shall 'be vocal for local' and adapt to new lifestyle of being mutually interdependent and become empowered.

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A study of Seven Basics of Human Resource Management in Modern Era

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Abstract

Every entrepreneur strives for the success of his or her company. Human resources are critical to every company's success. Employee performance might become a burden. Human resource management (HRM) is critical for companies of all sizes. I'll go over the principles and basics of human resource management in this article.

Keyword:-Human Resource Management (HRM), Human Resources Department (HRD). HR fundamentals. Selection, Recruitment. Management of performance. Learning, Development. Benefits and compensation, HR data and analytics, HR information systems:

Introduction

Every company's success is dependent on its employees. Employee performance can be a liability or a benefit to a company. As an HR professional, you will play a crucial role in the growth of your company. Effective human resource management (HRM) is crucial for businesses of all sizes.

In this article, we'll go through the fundamentals of human resource management. Let's begin with an outline of HRM and HR. We'll then go over the seven HR fundamentals you'll need to understand what HR is all about. We'll finish with a glossary of technical terms like HRIS (Human Resources Information System).

The technique of managing people to improve performance is known as human resource management (HRM). It's all about improving business performance through better human resource management. Then we'll go over the seven HR fundamentals you need to know to grasp what HR is all about.

HR provides expertise, tools, training, legal counsel, administration, and talent management, all of which are critical to a company's survival and advancement. Human Resource Management is all about improving firm performance through better human resource management.

Who are these Human Resources, the following question? Referring to humans as "human resources" may seem strange. Human resources refers to all of the people who work for or contribute to a company in some way. The work force of a corporation is made up of these individuals. They can be regular employees or contractors, for example. More and more people are starting to work for an organisation on a contract basis without having a regular labour contract, especially as the gig economy grows. These individuals include independent contractors,

contract workers, on-call workers, and temporary help agency employees.

An independent contractor can work for the same company for years, whereas an agency worker can work for 20 different companies in a year. Because these individuals are all active in the organisation to varying degrees, the manner in which they are managed and involved in it should also vary.

In addition, the corporation is progressively employing non-humans. In this scenario, we're discussing the rise of robotization. Robots are becoming more and more involved in day-to-day tasks, and the relationship between man and machine is becoming increasingly important to the organization's success. Despite the fact that these computers are not considered "human resources," there is an argument to be made that they should be recognised as part of the workforce in some aspects. They need to be included in some form because they are part of the workforce.

Research Methodology

This research paper is totally based on secondary data. Secondary data has collected from various book, journals, government reports and articles. Researchers has taken Seven Basics of Human Resource Management for the study purpose.

Objectives of the Study

1. To study theoretical aspects of Human Resource Management.
2. To study HR Practices in an organization.
3. To study Seven Basics of Human Resource Management (HRM)

What does the term "human resource management" mean?

Let us begin with a definition. Human resource management, or HRM, is the practice of managing people to improve performance. If you're

employing people for a company, you'll want to hire people who fit the corporate culture since they'll be happier, stay longer, and be more productive than those who don't. Another example is engagement. Engaged employees are more productive, provide higher-quality work, and make customers pleased. This means that if we can devise tactics to boost employee engagement, the company will benefit.

HR provides knowledge, tools, training, legal guidance, administration, and talent management, all of which are essential to a company's existence and growth. The goal of human resource management is to improve the performance of a company through better human resource management. The next question is, who are these Human Resources?

What does it mean to be a human resource?

It may seem weird to refer to humans as "human resources." All of the people who work for or contribute to a firm in any form are referred to as human resources. These are the people who make up a company's staff. They could be full-time employees or independent contractors, for example. With the growth of the gig economy, a growing number of people are choosing to work for a company on a contract basis rather than on a regular basis. Independent contractors, contract workers, on-call workers, and temporary help agency employees are among these folks.

An independent contractor may work for the same company for years, whereas an agency employee may work for 20 different companies in a single year. These personnel should be handled and participated in the organisation in various ways because they are all active in the company to differing degrees. Furthermore, the company is increasingly employing non-humans. We're talking about the rise of robotization in this scenario. The link between man and machine is becoming increasingly vital to the organization's performance as robots become more involved in day-to-day work. Despite the fact that these machines are not classified as "human resources," there is a case to be made that they should be considered employees in some fashion.

The seven HR fundamentals

Several characteristics are considered pillars for effective HRM policy while discussing Human Resource Management. These are the following:

1. Recruitment and Selection
2. Performance Management
3. Learning and Development
4. Succession Planning

5. Compensation & Benefits
6. Human Resources Information Systems
7. HR analytics and data

In the following part, we'll go through each of these HR principles one by one.

1. Recruiting and Selection- The most visible components of human resources are arguably recruiting and hiring. Isn't it true that we can all remember our very first job interview? An important HR responsibility is to attract and choose the best candidates to work for the organisation. People are the heartbeat of any firm, so finding the right fit is crucial. A request for new employment is typically made when a new position is created or an existing job becomes available. Following that, the direct manager sends the job description to HR, who then begins the recruiting process. In this process, HR might use a range of selection tools to find the best candidate for the job. Among these are interviews, numerous examinations, reference checks, and other recruitment processes. HR may utilise pre-selection strategies when there are a high number of candidates. When it comes to discovering qualified candidates, these approaches can assist separate the wheat from the chaff. Successful candidates move on to the next round, where they will be interviewed and evaluated more thoroughly.

2. Performance Management — Once employees are on board, performance management becomes crucial. Performance management is the second HR fundamental. It comprises aiding individuals in being their best selves at work, hence enhancing the bottom line of the organisation. Employees frequently have a list of obligations that they must fulfil. Employees can obtain feedback on their job through performance management, which allows them to enhance their performance. Examples include formal one-on-one performance reviews, 360-degree feedback instruments that include peer, client, and other relationship evaluations, and more casual feedback. Successful performance management is a team effort.

3. Learning and Development - People are shaped by their life experiences, the place and age in which they were raised, and a range of cultural influences. Learning and development in human resources guarantees that employees can adapt to changes in procedures, technology, and societal or legal changes. With the assistance of learning and development, employees can re-skill and upskill. HR is in charge of learning and development (L&D), and excellent policies can help the company meet its long-term goals. Many businesses have budgeted for employee training

and development. This budget is then distributed among employees, with trainees, future leaders, and other high-potentials receiving more training than others. Individuals with vastly different expertise and experience may join a company. Employees can use learning and development to close skill gaps and advance to positions of leadership. The 9-Box grid is a well-known system for integrating performance management and learning and development operations. Human resources and managers may recommend various growth programmes based on people's performance and potential ratings.

4. Succession Planning- Succession planning is the practise of preparing contingencies in the event that important individuals depart the organisation. If a key senior manager leaves, for example, having a replacement on hand maintains continuity and can save the organisation a lot of money. In succession planning, performance ratings and L&D projects are widely used. As a result, a talent pipeline has been created. This is a pool of qualified individuals who are ready to fill (senior) roles if one becomes available. Good people management necessitates the establishment and maintenance of this pipeline.

5. Compensation and benefits- Another HR core is compensation and benefits. Fair pay is critical for motivating and retaining employees. One of the basics of human resource management is ensuring pay equity and justice. Making the right pricing offer is essential for attracting great talent. This must be evaluated against the budget and profit margins of the company. HR should track compensation increases and develop merit-based pay standards. HR may undertake a salary audit on occasion. Compensation is classified into two types: primary compensation and secondary compensation. Money that is directly paid for work, such as a monthly paycheck or performance-based pay, is referred to as primary compensation. Secondary benefits include all non-monetary perks. Extra vacation time, flexible work hours, daycare, pensions, a company car and laptop, and other perks are all options. The objective is to stimulate people by rewarding them in motivating ways.

6. Human Resource Information System- The remaining two HR foundations are tools for doing HR better, rather than HR practises. The first is the Human Resource Information System, or HRIS. An HRIS underpins all of the previously mentioned pillars. HR professionals, for example, commonly use an Applicant Tracking System, or ATS, to track applications and employees during the recruitment and selection process. A performance management system is used to track individual goals and provide

performance ratings in order to manage performance. In L&D, a Learning Management System (LMS) is utilised to distribute internal materials, while other HR tools are used to manage budgets and training approvals. Payroll systems are widely used by compensation specialists, and there are extra digital tools available to assist with succession planning. All of these tasks are often handled by a single system, the HRIS. However, the administration of these responsibilities is sometimes divided into various HR systems. To summarise, working in HR includes a significant digital component, which is why the HRIS is the final ingredient when discussing HR fundamentals.

7. HR data and analytics- Data and analytics are the final component of HR fundamentals. In terms of being more data-driven, HR has come a long way in the last half-decade. As previously stated, Human Resource Information Systems is largely a data-entry system. The data from these systems can be used to make more informed and better decisions. HR metrics, often known as HR KPIs, are a straightforward approach to keep track of critical data. These are exact measurements that demonstrate how well a company performs on a specific metric. This is referred to as HR reporting.

Conclusion

Now we are able to understand the Seven Basics of Human Resource Management. These HR fundamentals are inextricably linked. They all interact with one another and have an effect on one another. Consider these seven elements to be building blocks: excellent management of one strengthens the next. When these HR fundamentals are combined, a workforce can not only perform better, but also perform at its top.

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A Study of Growth of Digital Payment Transactions in India: Challenges and Suggestions

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Abstract

Digital Payment System is the core of Indian Economy in present scenario. In the present study, a comprehensive analysis of the growth of digital payment transactions in India over the last five years is conducted. The study analyses the trends and patterns in the adoption of digital payment systems and identifies the key drivers and challenges associated with their growth. The paper also examines the impact of digital payment transactions on various sectors of the Indian economy, including banking, retail, and e-commerce. Additionally, the research explores the role of government policies and initiatives in promoting digital payments in India. The findings of this study could be useful for policymakers, businesses, and individuals interested in the growth and development of digital payment systems in India. The research paper throws light on the rapid growth of digital payment transactions in India and its potential to transform the country's economy in the coming years.

Keywords: Digital Payment, Banking, Growth, Economy.

Introduction

The use of digital payment transactions has increased significantly in India in recent years. This growth can be attributed to a number of factors such as government initiatives, technological advancements, and changing consumer behaviour. The shift towards digital payment systems has brought about significant changes in the Indian economy, particularly in the banking, retail, and e-commerce sectors. The COVID-19 pandemic has further accelerated this trend, with more people opting for digital payment methods to reduce physical contact. This research paper aims to analyse the growth of digital payment transactions in India over the past five years, from 2017 to 2022. The study aims to identify the key drivers and challenges associated with the growth of digital payment transactions in the country. Additionally, the paper examines the impact of digital payment transactions on various sectors of the Indian economy, and explores the role of government policies and initiatives in promoting digital payments. The findings of this research paper will provide valuable insights into the growth and development of digital payment systems in India. This analysis will help policymakers, businesses, and individuals to understand the changing landscape of digital payments in the country and its potential to transform the Indian economy. Overall, the research paper aims to contribute to the ongoing discourse on the growth of digital payment transactions in India and its impact on the economy.

Review of Literature

1. "Digital payments in India: Trends, issues, and opportunities" by Priya Desai and Rajni Jain (2019): This study provides a comprehensive

overview of the growth of digital payments in India, analysing the trends, issues, and opportunities in the sector. The authors discuss the various digital payment modes, their adoption, and usage patterns in different sectors, and highlight the key drivers and challenges associated with their growth. The study also identifies the impact of government policies and initiatives on the growth of digital payments in India.

2. "Digital payments in India: Opportunities and challenges" by Alok Kumar and Kishore Kumar (2018): This paper analysed the growth of digital payments in India and identifies the opportunities and challenges associated with their adoption. The authors examine the various digital payment modes, their usage patterns, and the factors driving their growth. The study also explores the impact of digital payments on financial inclusion and identifies the challenges faced by users and merchants in adopting digital payments.

3. "Growth and prospects of digital payments in India" by Ashish Das (2019): This study analysed the growth and prospects of digital payments in India, providing insights into the trends, patterns, and challenges in the sector. The author discusses the various digital payment modes, their adoption, and usage patterns, and examines the factors driving their growth. The study also explores the impact of digital payments on the banking sector and identifies the challenges faced by users and merchants in adopting digital payments.

4. "Adoption of digital payments in India: An exploratory study" by Priti Kulkarni and Dipika Agrawal (2018): This paper explores the adoption of digital payments in India, providing insights into the factors influencing their adoption and usage. The authors discuss the various digital payment modes, their adoption, and usage patterns, and

identify the key drivers and barriers to their adoption. The study also examines the impact of digital payments on financial inclusion and identifies the challenges faced by users and merchants in adopting digital payments.

Objectives of The Study

1. To understand the trend in digital payment transactions in India over the past five years.
2. To identify the key drivers and challenges associated with the growth of digital payment transactions in India.
3. To explore the role of government policies and initiatives in promoting digital payments in India.
4. To provide suggestions for policymakers, businesses, and individuals interested in the growth and development of digital payment systems in India.

Importance of The Study

This study is important to understand the changing consumer behaviour towards digital payments and its trend in India. It is also useful for providing valuable insights to policymakers in developing effective policies to promote the growth of digital payments. It will also provide guidelines to businesses to develop strategies to leverage the shift in consumer behaviour towards digital payments. This study prove helpful to identify challenges and opportunities associated with digital payments and guiding further research and innovation.

Research Methodology

This research paper uses a quantitative research methodology to analyse the growth of digital transactions in India. The data on digital transactions has been collected from various sources such as the Reserve Bank of India, the National Payments Corporation of India, and other relevant government reports. The study is based on secondary data collected from various organisations.

Limitations of The Study

1. The analysis of the study is limited to digital payment transactions and does not include other forms of electronic payments such as cryptocurrencies.
2. The research study is limited to the past five years only.

Hypotheses of The Study

H₀: There is no significant increase in the growth of digital payment transactions in India over the past five years.

H₁: There is a significant increase in the growth of digital payment transactions in India over the past five years.

Data Collection, Analysis & Interpretation

Digital payment modes considered are BHIM-UPI, IMPS, NACH, AePS, NETC, debit cards, credit cards, NEFT, RTGS, PPI and others. Following are some of the Government initiatives for promoting digital payments transactions in India.

Government Initiatives

Digital India Campaign: It is launched in 2015, the Digital India campaign aims to transform India into a digitally empowered society and knowledge economy. The campaign includes various initiatives to promote digital payments, such as the promotion of digital literacy, the creation of digital infrastructure, and the development of digital services. It was aimed at transformation of India in a knowledge and digitally powered economy.

Unified Payments Interface (UPI): Launched in 2016, UPI is a real-time payment system that enables instant fund transfers between bank accounts through a mobile device. The system has been widely adopted in India, with more than 2 billion transactions processed in March 2021.

BHIM App: Launched in 2016, BHIM (Bharat Interface for Money) is a mobile payment app that allows users to send and receive money using UPI. The app is interoperable with other UPI-based payment apps and has been widely adopted in India.

National Payments Corporation of India (NPCI): NPCI is an umbrella organization for all retail payment systems in India. It was set up by the Reserve Bank of India (RBI) and Indian Banks' Association (IBA) in 2008. NPCI manages UPI, BHIM, and other payment systems in India.

Challenges Faced By Digital Payment Transactions And Digital Banking In India

Digital Divide: One of the major challenges is the digital divide, where a large portion of the population still lacks access to digital infrastructure, including smartphones and reliable internet connectivity, making it difficult for them to adopt digital payments and banking.

Cyber Security: With the increase in digital transactions, cybersecurity threats have also increased, and there is a need for robust

cybersecurity measures to protect customers' personal and financial information.

Lack of awareness and education: A significant proportion of the population still lacks awareness and knowledge about digital payment transactions and digital banking, which limits their adoption.

Technical glitches: Technical glitches and system failures can result in delayed transactions, incorrect debits, and other errors, leading to dissatisfaction among customers.

Cash dependency: Despite the push towards digital payments, cash is still king in India, and a significant portion of the population continues to prefer using cash for transactions.

Table 1.1 presented the data shows the total number of digital payment transactions in crore undertaken during the last five financial years in India. It can be observed that there has been a consistent increase in the number of digital payment transactions over the past five years.

Table No. 1.1 Trend in Digital Payment Transactions

Financial Year (FY)	Total number of digital transactions (in crore) Rs.
2017-18	2,071
2018-19	3,134
2019-20	4,572
2020-21	5,554
2021-22	8,840

(Source: RBI, NPCI and Banks)

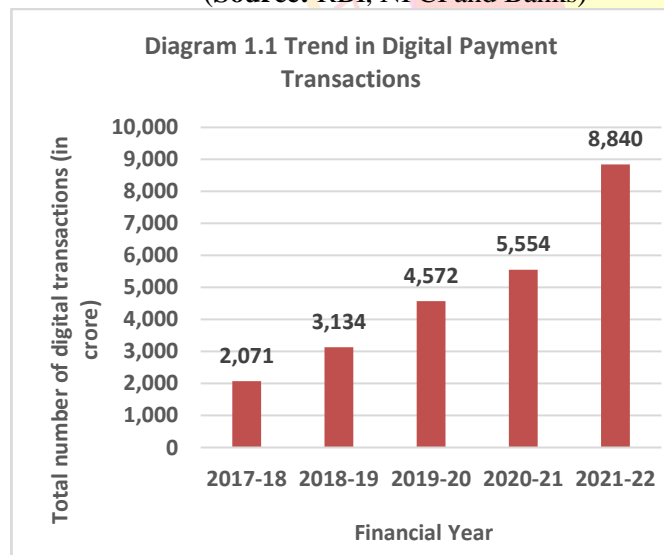


Table 1.1 indicates that in the financial year 2017-18, there were 2,071 crore digital payment transactions in India. This number increased to 3,134 crore in 2018-19, showing a growth of around 51%. In the following financial year 2019-20, the number of digital payment transactions increased to 4,572 crore, which is a growth of

around 46%. In the financial year 2020-21, the number of digital payment transactions further increased to 5,554 crores, showing a growth of around 21%. The data also shows that in the financial year 2021-22, the total number of digital payment transactions has increased significantly to 8,840 crore, indicating a growth rate of around 59% as compared to the previous year. The researcher observed that there has been a significant increase in the adoption of digital payment transactions in India over the past five years, with a particularly rapid growth in the financial year 2021-22. This trend highlights the growing preference for digital payments among Indian consumers and the increasing importance of digital payment systems in the country's economy.

Table 1.2 presents the data regarding total value of digital payments during the last five financial year.

Table 1.2 Total Value of Digital Transactions

Financial Year (FY)	Total value of digital transactions (in lakh crore) Rs.
2017-18	1,962
2018-19	2,482
2019-20	2,953
2020-21	3,000
2021-22	3021

(Source: RBI, NPCI and Banks)

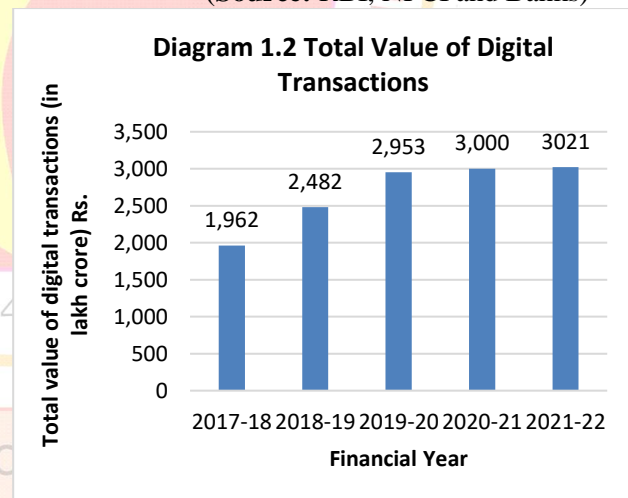


Diagram 1.2 presents the data shows the total value of digital payments in India for the last five financial years. Researcher observed the there has been a steady increase in the total value of digital payments in India over the years. In 2017-18, the total value of digital transactions was Rs. 1,962 lakh crore, which increased to Rs. 2,482 lakh crore in 2018-19. The total value of digital transactions further increased to Rs. 2,953 lakh crore in 2019-20. Although the increase in the total value of digital transactions slowed down in 2020-

21, it still increased to Rs. 3,000 lakh crore. In the current financial year 2021-22, the total value of digital transactions increased slightly to Rs. 3,021 lakh crore. The data suggests that digital payments in India have been on the rise and are likely to continue to grow in the future.

Particularly rapid growth rate of around 59% in the financial year 2021-22. The total value of digital payments in India has also shown a steady increase over the years, with a slight increase in the financial year 2021-22. The trend highlights the growing preference for digital payments among Indian consumers and the increasing importance of digital payment systems in the country's economy. There is a significant increase in the growth of digital payment transactions in India over the past five years. Hence, alternative hypothesis is accepted.

Conclusion and Suggestions

After analysing the collected data, researcher concluded that the data reveals a consistent increase in the number of digital payment transactions and the total value of digital payments in India over the last five years. The growth rates observed in the current financial year 2021-22 are particularly noteworthy, indicating a rapid shift towards digital payments in the country. The data highlights the increasing importance of digital payment systems in the Indian economy and suggests that the trend is likely to continue in the future. This analysis is useful for policymakers, businesses, and individuals, as it can inform decision-making processes related to the development of policies, strategies, and investments in the digital payments sector. Researcher provided the following suggestions -

- The government and financial institutions should continue to invest in the development and promotion of digital payment systems in order to support this trend of growth.
- Businesses should take advantage of the increasing popularity of digital payments by

adopting these systems and offering a variety of digital payment options to customers.

- Consumer education campaigns should be initiated to increase awareness of the benefits of digital payments and to address any concerns or barriers that may prevent some consumers from adopting these systems.
- Further research may be conducted to better understand the impact of digital payments on the Indian economy, including their effect on different sectors, regions, and demographic groups. This information can help policymakers and businesses make more informed decisions and develop more effective strategies.

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Post COVID-19 Pandemic Challenges to Employees Training and Development at HDFC Bank, Latur

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Abstract:

The CORONA pandemic has caused one of the biggest crises of an unprecedented nature in the known history of the world. In March 2020, the sudden lockdown forced to close all essential banks and its HR offices to some extent. Banks had to quickly adapt and respond to the demands of social distancing, hygiene, new protocols and shift to online training and assessment methods and also dealing with the stress among the bank employees caused in pandemic period. As a result, all of sudden trainers were engaged in new method of training of distance learning with minimum preparation. All new trainee and existing employee were trained with lack of technological resources at home for online modalities. The present study examines how all employees working at HDFC BANK LTD. LATUR including new employees and existing employees of all grades and channels from different departments were facing the challenges in their induction, training and Development Post COVID-19. The study clearly reflects the relevancy of the training, stress management and the challenges faced by employees at HDFC BANK LTD, such as lack of preparation for distance training and development, deficiencies in-service training to address the professional needs of new as well as existing employees distantly, and the need to work differently with HR guidelines.

Keywords: Training and development, Stress Management, Post Covid-19, Banking sector.

Introduction:

Employees training and development is important in organizational development; provide skills and knowledge to employees, and positive impact in employee's growth. The majority of new employees and existing employees now regularly attend training programs and knowledge programs prior to their entry into work environment. The research indicates that of all employees in the HDFC BANK LTD attend some form of online training, meetings and sessions only After COVID-19 pandemic and lockdown period. The interactions between employee and their work environment shape their development. Participation in product training and process training contributes to the development of cognitive and language skills, as well as social competency and emotional growth.

Objectives of the Study: -

To study the challenges and changes post COVID-19 and employee's view towards the training process after COVID-19 pandemic situation at HDFC BANK LTD.

To identify the factors increasing Online training and development program After CORONA.

Research Methodology and Data Collection: -

The present research is an empirical study. It is mainly based on both primary and secondary data. For gathering the information and facts relating to the study were collected from the officials, trainers and employees-trainees at HDFC Bank Ltd with the help of structured tools of data collection. The data for the research has been

collected from research proceedings, text books, inter office manuals and websites. In this research a stratified random sampling method has been used for selecting a sample of 200 HDFC bank employees.

Review of Literature

The crisis caused by the COVID-19 pandemic has consequences on many levels – in the health sector, the economy, the labour market, education, perception to technological advances technology or the approach to new related, legal regulations. It turns out that new technology is crucial in the fight against the crisis, because it enables communication and remote work or online learning on an unprecedented scale. The key advantage of incorporating collaborative technologies into the learning environment is that users are able to have constant accessibility on the training materials (on-demand) from anywhere using various devices (Fake and Dabbagh, 2020).

Kane (1986) If the training and development function is to be effective in the future, it will need to move beyond its concern with techniques and traditional roles. He describes the strategic approaches that the organization can take to training and development, and suggests that the choice of approach should be based on an analysis of the organization's needs, management and staff attitudes and beliefs, and the level of resources that can be committed. This more strategic viewpoint should be of use in assessing current efforts as well as when planning for the future.

Yoder (1970) Training and development in today's employment setting is far more appropriate than training alone since human resources can exert their full potentials only when the learning process goes for beyond the simple routine.

Findings and discussion

The bank authorities have to pay attention towards the mental stress, problems and challenges of employees training and development during COVID-19 Pandemic. Arrangement of employee engagement programs and multiple levels various training and development programs should be done by the management.

It has been examined that 68% of the employees are facing challenges, problems and mental stress to take their job training in COVID - 19. It has been found after analysis that 38% of the employees in HDFC bank are with their jobs in high work pressure even in the COVID-19 situation. It was found that HDFC BANK LTD is the leading private bank and the employees working in urban area branches have a more work pressure than the remote area branches.

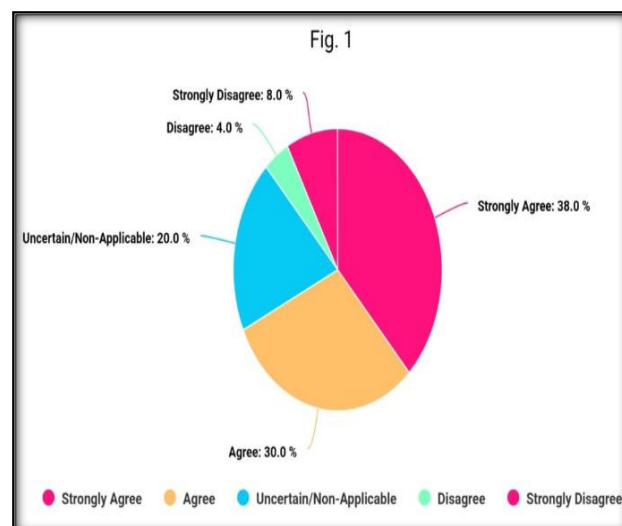
This is suggested to HDFC bank to provide enough training sessions and product knowledge to their employees so that they can work effectively and efficiently in situation like COVID-19 Pandemic/ lockdown and work from home.

After such a pandemic situation classroom training changes into online classes, role plays changes into online demos and practical training environment everything is online and virtual.

RESPONSES	NO. OF RESPONDENTS	PERCENTAGE
STRONGLY AGREE	76	38%
AGREE	60	30%
UNCERTAIN/Non-APPLICABLE	40	20%
DISAGREE	08	04%
STRONGLY DISAGREE	16	08%
Total	200	100%

Source: Primary Data

After such a pandemic situation classroom training changes into online classes, role plays changes into online demos and practical training environment everything is online and virtual.



Inference

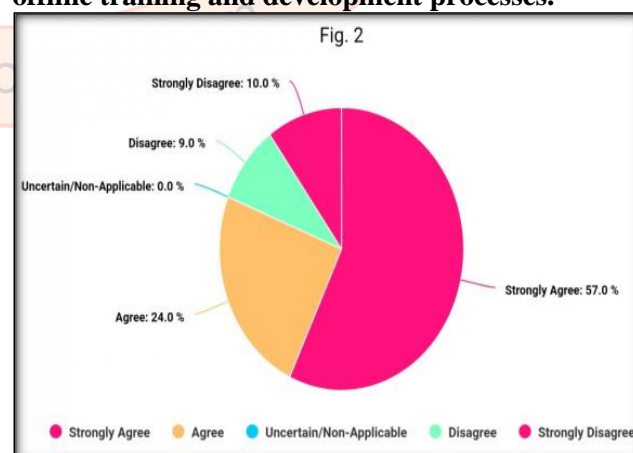
From this study 68% of respondents are strongly agree and agree that there are no classroom trainings, no role plays and no practical training exposure everything is just online and virtual type of training and development arises by COVID-19 Pandemic and Everything is online and virtual.

Facing challenges of online dependency of training and development process and more less offline training and development processes.

RESPONSES	NO. OF RESPONDENTS	PERCENTAGE
STRONGLY AGREE	114	57%
AGREE	48	24%
UNCERTAIN/Non-APPLICABLE	00	00%
DISAGREE	18	09%
STRONGLY DISAGREE	20	10%
Total	200	100%

Source: Primary Data

Facing challenges of online dependency of training and development process and more less offline training and development processes.



Inference

From this study 68% of respondents are strongly agree and 24% are agree that they are facing challenges of online dependency of work as well as training and development process, No exposure of practical Knowledge. And very less scope to offline procedures of training and development in COVID-19 pandemic situation are created.

Chi Square Test

There are mental stress, threats and challenges in training and development arises due to COVID-19 Pandemic that I faced and more often unable to join and stay connected to online training program due to low technology.

Strongly Agree-	80
Agree-	58
Uncertain/Not-Applicable-	38
Disagree-	12
Strongly Disagree-	12

Inference:

From this study 40% of respondents strongly agree that there are so many challenges and changes in training and development arises after COVID-19 Pandemic. 29% of respondents agree the COVID-19 pandemic increases challenges and changes to training and development of employee. And only 6% of respondents strongly disagree to changes after COVID-19 to training and development of employee.

Solution:

Hypothesis-

Null Hypothesis- H₀: There is no any effect of COVID-19 pandemic on training and development and there are no mental stress, problems and challenges arise during COVID-19 Pandemic to training and development of employee.

Alternative Hypothesis- H_a: During COVID-19 Pandemic, problems, challenges and mental stress of training & development increased and it badly affects employee's performance and in this COVID-19 pandemic situation there are no classroom training, no role plays and no practical training environment everything is online and virtual.

80	58	38	176
12	12	0	24
92	70	38	200

$$E = \{ \text{row total} * \text{column total} \} / \text{grand total}$$

O	E	O-E	[O-E] ²	[O-E] ² / E
80	80.96	- 0.96	0.9216	0.0113
58	61.06	- 3.06	9.3636	0.1533
38	33.44	4.56	20.7936	0.6218
12	11.04	0.96	0.9216	0.0834
12	8.4	3.6	12.96	1.5428
Total= 200	200	5.1	44.9604	2.4126

$$\text{TOTAL} = 2.4126$$

$$\chi^2 = \text{SUM OF } (O-E)^2 / E = 2.4126$$

$$CV = 2.4126$$

Degree of Freedom:

$$V = [r-1] * [c-1]$$

$$V = [2-1] * [2-1]$$

$$V = 1 * 1 \Rightarrow V = 1$$

Table value [TV] = 1.02 [constant] [the level of the significance is 5%]

$$\text{Calculated value [CV]} = 2.4126$$

$$CV > TV$$

Therefore, During COVID-19 Pandemic, problems and challenges of training & development increased and it badly affects employee's performance and In this COVID-19 pandemic situation there are no classroom trainings, no role plays and no practical training environment everything is online and virtual. Since the Calculated Value is **2.4126** so the Null hypothesis is rejected and the alternative hypothesis is accepted.

Relevancy of training program with the COVID-19 pandemic situation

Very Bad=138

Satisfactory=38 Good=12

Very Good=12

Conclusion:

The aim of this study is that to identify challenges and Changes in training and development After COVID-19 pandemic and employee's view towards the training process in such a post pandemic situation at HDFC BANK LTD., latur. This study reflects the perception of employees towards the organization and its training process. Being a private bank HDFC BANK LTD tries to improve training programs and development facilities through online but after pandemic situation some challenges of changes faced by employees as well as management.

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Employment and Skill Development

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Abstract:

Due to lack of employability skills, mental stress is increasing on the minds of students these days. Skill shortage is a major issue these days. Skill Development is crucial for getting employment among today's student. Skill Enhancement and Elevation both are equally important for developing Economy & to face Global emulation. There is significance relationship between the Skill Development and Employment. It needs to reduce the deviation between Skill Development and Employment. There is an instant requirement to create increasing opportunities for students to develop their identity, functional efficiency, and thus make them economically prolific. Skill enhancement courses and its Implementation in the education system create a huge impact on the Job Creation. It has been also seen that Geographical Factors, Sympathetic System, lack of Guidance, Poor Adherence, Improper Training is affected on the obtaining the skills for employability specially in the rural youth. Purpose of this paper is to conduct an in-detailed analysis of the literature and to provide new intuition on skill development research. In this paper, an attempt has also been made to recognize how far the skill development programmes have accomplished success launched by the government of India.

Key words: Skill Enhancement and Elevation, Skill Enhancement Courses, Employability.

Introduction:

By enhancing employability and productivity as well as supporting the growth of inclusive businesses and sustainable enterprises, skill development is a key factor in the fight against poverty. It makes a cycle of high production, more employment possibilities, and rising income possible, as well as growth. This is only one of many variables that impact productivity, and how these variables are measured varies for people, businesses, and economies. The availability of trained and healthy labor, technology advancements, creative business practices, and good macroeconomic strategy may all be contributing factors to the rise in productivity. Increased profits for businesses, higher wages for workers, and an increase in real gross domestic product are some examples of how productivity can be demonstrated. It's critical for self-employed people to strengthen their skills to change from being self-employed employees to being an employer or business owner. However, to begin with it is necessary to recognize what institutes productivity and how it is restrained at different levels.

The achievement of the Skill India Mission in reskilling and skilling 460 million people by 2022 is crucial to the implementation of the present government's Make in India, Digital India, Smart City, Namami Gange, and Swachh Bharat projects. The following programmes are among the most crucial ones for fostering entrepreneurship (i) SETU- the Self-Employment and Talent Utilization scheme is a Techno-Financial, Gestation and Enablement Programme to support all aspects of start-up businesses, and self-employment activities, particularly in knowhow driven areas, (ii) Atal

Innovation Mission AIM, a platform for promoting innovation. (iii) Start Up India to promote financing for start-ups and offer inducements to increase entrepreneurship and job creation in the country.

Objective of the study:

- 1) To understand the relationship between skill development and employment.
- 2) To focus on the main issues of the skill development
- 3) To provide suggestion for skill development in India
- 4) To understand the requirements of the skill development.

In order to increase their skills, countries must address many major concerns.

1) Access and accomplishment: Investments in education and skill development yield great returns all around the world, from preschool through post-secondary education to vocational training. In Colombia, Georgia, and Ukraine, the salary penalty for low literacy is nine percentage points, whereas it is 19 percentage points in Ghana. Conversely, graduates of vocational programmes in Brazil make roughly 10% more money than those with a general secondary school degree. Even yet, many low-income and middle-income nations struggle to provide fair access. In addition, many students who register in training or education programmes do not finish their studies and do not receive official degrees, which can significantly lower the return on the educational investments in terms of prospective lifetime earnings.

2) Quality: Many young people enrol in schools but lack the foundational reading skills necessary to succeed on the labour market. More than 80% of Ghana's working-age population and more than 60% of Kenya's population are unable to deduce

basic information from texts that are reasonably straightforward. Returns for students who pursue technical and vocational education at the secondary and postsecondary levels can vary greatly depending on the speciality and setting. Particularly, technical and vocational training (TVET) systems face difficulties with quality assurance in many countries, giving the impression that the vocational track is a less desirable option than general secondary or tertiary education.

3) Pertinence: Young people, particularly women, can acquire the skills necessary to compete for better-paying employment through technical and vocational education and training, which can span anywhere from six months to three years. To make sure that the content and execution of these programmes meet the demands of the labour market, additional work has to be done to include local companies.

4) Efficiency: The effectiveness of skill development programmes is also impacted by issues with governance, funding, and quality control. The ensuing excessively high fees may reduce the chances for underprivileged children and adults to access these programmes.

What difficulties do you face with skill development?

Insufficient Basic Education: One in eight students enrolled in a school or college drop out before completing their education, with 63% of them occurring at the school level, according to a 2020 NSO poll.

Upper primary (17.5%) and secondary school (19.8%) are when dropout rates are at their highest. Less than 40% of students continued on to higher secondary or higher education.

Upskilling the younger generation for higher-end occupations would be challenging without a foundational education.

Lack of Attention to Upskilling/Reskilling: India has significantly addressed the workforce's skilling demands with the growth of numerous skilling projects.

The needs of the greater working population's upskilling and reskilling have, however, mainly gone unmet.

86.1% of people aged 15 to 59 who were included in the PLFS 2019–20 data had no formal vocational training. 13.9% of the population had training from a variety of formal and informal sources.

Lack of Training Facilities: According to a survey by the NSSO, there are up to 20 high-growth industries in India that lack training facilities,

including logistics, healthcare, construction, hotels, and cars.

Compared to China's 500,000 equivalent institutes, India has around 5,500 state (ITIs) and private (ITC) institutions.

Covid-19 Pandemic: Millions of students have been harmed as a result of the Covid-19 pandemic, which has disrupted both short- and long-term training courses.

Five million applicants across India had their prospects harmed in the first wave when more than 30,000 ITIs and National Skills Training Institutes temporarily closed training facilities.

What steps have been taken to develop skills?

Construction of Training Facilities: A sizable institutional framework for education and skill development has grown over time. Included in this are 2,188 training partners registered with NSDC, 36 Sector Skills Councils, 33 National Skills Training Institutes, and 15,154 Industrial Training Institutes (ITIs), including 11,892 private institutions.

Mantri Pradhan Mantri Kaushal Vikas Yojana: In order to provide short-term training, skilling through ITIs, and under the apprenticeship programme, the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) plan was introduced in 2015.

Under this programme, the government has trained over 10 million young people since 2015.

Mandatory CSR Expenditure in Skilling: Since the Companies Act of 2013 made CSR spending mandatory, Indian corporations have contributed more than 100,000 crores to a variety of social projects.

Of these, \$6,877 crore or so was spent on initiatives to improve skills and livelihoods. The top five recipients were Gujarat, Tamil Nadu, Odisha, Karnataka, and Maharashtra.

TEJAS Initiative for Skill Development: A recent Skill India International Project called TEJAS (Training for Emirates Jobs and Skills) to teach Indians living abroad was introduced during the Dubai Expo 2020.

The initiative intends to prepare Indian workers for the skill and market needs in the UAE by providing them with training, certification, and opportunities to work abroad.

Other notable skilling programmes are SANKALP and STRIVE, which aim to enhance the performance of ITIs and focus on the district-level skilling ecosystem, respectively.

Multiple Ministries' Initiatives: 20 governmental ministries/departments are responsible for implementing around 40 skill development projects. About 55% of the skill development is

credited to the Ministry of Skill Development and Entrepreneurship.

Since 2015, approximately four crore individuals have received formal skills training through initiatives by all ministries.

What more needs to be done?

1)Raising the level of education among the labour force:

Young boys and girls to be ready to work effectively in agriculture or to access alternative economic options, secondary education must be made ubiquitous. Giving school dropouts a second chance to learn fundamental reading and numeracy skills can help people move out of poverty. To get school dropouts out of low-paying unskilled jobs in the informal economy, they need to be given a second chance to learn fundamental reading and numeracy skills. Examples may be seen in India, where Pratham launched the Second Chance project in 2011 to provide dropout students—especially girls—a chance to finish secondary school and get the skills they need to find jobs. It is a 15-month plan that assists young women and girls who have left school in the range of 16 to 25 years old in passing their secondary school examination. In addition, it attempts to increase awareness of the need of educating women and girls so that they can overcome the regressive constraints of caste and religion. In addition to removing the obstacles that females encounter in attending school, this would increase women's employability.

2)Increasing accessibility to high-quality training for job possibilities:

To increase production and income and connect chances for improved life and employment, it is necessary to expand everyone's access to high-quality, pertinent training, especially in rural regions. This is crucial in the case of India since a significant portion of the country's demographic advantage is concentrated in its rural areas. To address the rapidly changing skill needs, it may be necessary to increase training capacity for relevant and high-quality skills. Upgraded informal apprenticeship programmes, such as the Apprenticeship Protsahan Yojana, can provide skills and knowledge for higher-value activities and more cutting-edge technologies.

3)Cooperation between different stakeholders:

Different stakeholders are currently at odds with one another, which results in skill mismatch. Although Sector Skill Councils work to close the gaps, there is still much work to be done. Coordination between Ministries and Agencies in charge of creating and enforcing policies in the areas of education and skill development would aid

in preparing young people for the jobs and industries of the future and aid in adjustments during times of change. In addition to achieving the goal of policy consistency, this would also solve difficulties with skill shortages, increase productivity, and promote employment growth, among other things. Good macroeconomic policies that promote job opportunities are still also necessary for this. In the case of India, initiatives like "Make in India," "Digital India," "Housing for All," and "Swachh Bharat" along with "favourable policies for infrastructural development," "lower interest rates," and "National Skill Mission" will provide enormous job prospects.

4)Strengthening the framework for skill delivery:

The majority of training is carried out at the state level. The execution, however, differs between States, with many demographically favourable States experiencing a scarcity of both good training and physical infrastructure. The States must embrace the centrally stated standard criteria for course costs, lengths, etc., and then create state-specific recommendations for skill development programmes in accordance with those norms. Additionally, decentralised implementation at the State, district, and block levels are required for effective outreach and access by various population segments, as well as for effective coordination and monitoring of skill development initiatives.

5)Putting an emphasis on results and choosing key performance indicators

The emphasis nowadays is on numerical metrics with little to no attention paid to the students who are taught and placed. The Union Government's efforts to improve the National Career Guidance Centre at the district and block levels and integrate it with the Labour Market Information System would make it easier to keep track of the young people obtaining skill training who may work either as wage employees or self-employed individuals.

Conclusion& Suggestions:

People in India still unaware about Government initiatives towards skill development programme. Its need to be aware to them. Government and business leaders frequently introduce new skill-development projects, but for some reason they do not reach the casual employees who make up the majority of the Indian labour force. The government has made significant investments in infrastructure and training expenditures, but a strong workforce for the industry still remains a pipe dream. These exercises can assist in predicting skill gaps over time at

various levels, industries, and location. It should be the responsibility of a designated agency to gather data from the HRP and LMIS exercises. One of the major priorities of the new government is entrepreneurship and skill development, thus for the first time an autonomous ministry has been established to carry out the task. It's crucial that the intended recipients of the skill development programme enrol in training programmes with a desire to study and become independent so they can lead better lives.

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Digital India

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Abstract

Digital India is a flagship programme of Government of India. It was launched to ensure that the services of government should be made available to citizens electronically through improved online infrastructure as well as by increasing Internet connectivity. And also making the country digitally empowered in the field of technology, with a vision to transform India into a digitally empowered society and knowledge based economy. Digital India program launched in July 2015, by our Prime Minister Shri Narendra Modi. It was a big step taken by government with a vision of transforming India into digitally empowered society. The motto of digital India programme "POWER to EMPOWER" is itself enlightening the vision of the programme that is to take nation forward digitally, economically, and efficiently. The main objective of Digital India programme is inclusive growth in areas of electronic services, products, manufacturing and job opportunities. It is an enabler as well as beneficiary of other key Government of India schemes, like BharatNet, Make In India, Standup India, industrial corridors, Bharatmala and Sagarmala etc.

The objective of this paper is to know more information related to Digital India Program. The main aim of this research paper is to analyze and study the Digital India Programme and to explore its various aspects. The study highlights the various steps taken by the Government.

KEYWORDS: - Digital India, Government, Electronically, Services

A. Introduction

The Digital India programme is a flagship programme of the government of India. It was launched on 1 July 2015 by our Prime Minister Shri Narendra Modi. By having a vision of converting India into a digitally empowered society and knowledge economy. Digital India is a Programme to prepare India for a knowledge future. It is one of the biggest steps by government of India to motivate the citizens of the country and connect Indian economy to knowledge savvy world. Digital India is an umbrella programme that covers multiple Government Ministries/ Departments and it is being coordinated by the Department of Electronics and Information Technology (DeitY). The Digital India vision provides the intensified impetus for further momentum and progress for this initiative and this would promote inclusive growth that covers electronic services, products, devices, manufacturing and job opportunities. It will be implemented in phases from the current year till 2018 by the concerned line Ministries/Departments at the Central, State and Local Government levels.

B. Objectives of The Study

1. To study the concept of Digital India Programme.
2. To study the pillars of Digital India Programme.
3. To study the vision areas of Digital India Programme.
4. To study the initiatives under Digital India Programme.

C. Research Methodology

This paper is descriptive and based on secondary data that have been taken from government official websites, internet, magazines, journal, and newspapers.

D. VISION AREAS OF DIGITAL INDIA

The Digital India programme is centred on three key vision areas

1. Vision Area 1: Infrastructure as a Utility to Every Citizen

- High speed internet as a core utility
- Cradle to grave digital identity -unique, lifelong, online, authenticable
- Mobile phone & Bank account enabling participation in digital & financial space
- Easy access to a Common Service Centre
- Shareable private space on a public cloud
- Safe and secure Cyber-space

2. Vision Area 2: Governance & Services On Demand

- Seamlessly integrated across departments or jurisdictions
- Services available in real time from online & mobile platform
- All citizen entitlements to be available on the cloud
- Services digitally transformed for improving Ease of Doing Business
- Making financial transactions electronic & cashless
- Leveraging GIS for decision support systems & development

3.Vision Area 3: Digital Empowerment of Citizens

- Universal Digital Literacy
- Universally accessible digital resources
- All documents/ certificates to be available on cloud
- Availability of digital resources / services in Indian languages
- Collaborative digital platforms for participative governance
- Portability of all entitlements through cloud

E. Nine Pillars of Digital India Programme

Pillar 1: Broadband Highways This covers three sub components, namely Broadband for All Rural, Broadband for All Urban and National Information Infrastructure.

a.Under Broadband for All Rural, 250 thousand village Panchayats would be covered by December, 2016. DoT will be the nodal Department and the project cost is estimated to be approximately Rs. 32,000 Cr.

b.Under Broadband for All Urban, Virtual Network Operators would be leveraged for service delivery and communication infrastructure in new urban development and buildings would be mandated.

C .National Information Infrastructure would integrate the networks like State Wide Area Network (SWAN), National Knowledge Network (NKN) and National Optical Fibre Network (NOFN) along with cloud enabled National and State Data Centres. It will also have provision for horizontal connectivity to 100, 50, 20 and 5 Government offices/ service outlets at State, District, Block And Panchayat levels respectively.

Pillar 2: Universal Access to Mobile Connectivity

- The initiative is to focus on network penetration and fill the gaps in connectivity in the country.
- All together 42,300 uncovered villages will be covered for providing universal mobile connectivity in the country.
- DoT will be the nodal department and project cost will be around Rs 16,000 Cr during Financial Year 2014-18.

Pillar 3: Public Internet Access Programme

- The two sub components of Public Internet Access Programme are Common Service Centres (CSCs) and Post Offices as multi-service centres.
- Common Service Centres would be strengthened and its number would be increased from approximately 135,000 operational at present to 250,000 i.e. one CSC in each Gram Panchayat.

c. A total of 150,000 Post Offices are proposed to be converted into multi service centres. The Department of Posts would be the nodal department to implement this scheme.

Pillar 4: e-Governance – Reforming Government through Technology

- Government Business Process Re-engineering using IT to improve transactions is the most critical for transformation across Government and therefore needs to be implemented by all ministries/ departments.
- The guiding principles for reforming government through technology are:
 - Form simplification and field reduction.
 - Forms should be made simple and user friendly and only minimum and necessary information should be collected.
 - Integration of services and platforms, e.g. Unique Identification Authority of India (UIDAI), Payment Gateway, Mobile Platform, Electronic Data Interchange (EDI) etc. should be mandated to facilitate integrated and interoperable service delivery to citizens and businesses.
- Electronic Databases – all databases and information should be electronic and not manual.
- Workflow Automation Inside Government – The workflow inside Government departments and agencies should be automated to enable efficient Government processes and also to allow visibility of these processes to the citizens.
- Public Grievance Redressal - IT should be used to automate, respond and analyze data to identify and resolve persistent problems. These would be largely process improvements.

Pillar 5: e-Kranti (NeGP 2.0) – Electronic delivery of services

- There are 31 Mission Mode Projects (MMPs) under different stages of e-Governance project lifecycle. Further, 10 new MMPs have been added to e-Kranti by the Apex Committee on National e-Governance Plan (NeGP) headed by the Cabinet Secretary in its meeting held on 18 March 2014.
- Technology for Education – e-Education All Schools will be connected with broadband. Free wifi will be provided in all Secondary and Higher Secondary Schools (coverage would be around 250,000 Schools). A programme on digital literacy would be taken up at the national level. Massive Online Open Courses (MOOCs) shall be developed and leveraged for eEducation.

- c. Technology for Health – e-Healthcare E-Healthcare would cover online medical consultation, online medical records, online medicine supply, pan-India exchange for patient information. Pilots shall be undertaken in 2015 and full coverage would be provided in three years.

d. Technology for Farmers

This would facilitate farmers to get real time price information, online ordering of inputs and online cash, loan and relief payment with mobile banking. Technology for Security Mobile based emergency services and disaster related services would be provided to citizens on real time basis so as to take precautionary measures well in time to minimize loss.

Pillar 6: Information for All

- a. Open Data platform and online hosting of information and documents would facilitate open and easy access to information for citizens.
- b. Government shall pro-actively engage through social media and web based platforms to inform citizens. MyGov.in has already been launched as a medium to exchange ideas/ suggestions with Government. It will facilitate 2-way communication between citizens and Government.
- c. Online messaging to citizens on special occasions/programs would be facilitated through emails and SMSes. The above would largely utilise existing infrastructure and would need limited additional resources.

Pillar 7: Electronics Manufacturing – Target NET ZERO Imports

Target NET ZERO Imports is a striking demonstration of intent. This ambitious goal requires coordinated action on many fronts.

- a. Taxation, incentives
- b. Economies of scale, eliminate cost disadvantages
- c. Focus areas – Big Ticket Items FABS, Fab-less design, Set top boxes, Very Small Aperture Terminals (VSATs), Mobiles, Consumer & Medical Electronics, Smart Energy meters, Smart cards, micro-ATMs
- d. Incubators, clusters
- e. Skill development
- f. Government procurement

Pillar 8: IT for Jobs

- a. One Cr students from smaller towns & villages will be trained for IT sector jobs over 5 years. DeitY would be the nodal department for this scheme.

- b. BPOs would be set up in every north-eastern state to facilitate ICT enabled growth in these states. DeitY would be the nodal department for this scheme.

- c. Three lakh service delivery agents would be trained as part of skill development to run viable businesses delivering IT services. DeitY would be the nodal department for this scheme.

- d. Five lakh rural workforce would be trained by the Telecom Service Providers (TSPs) to cater to their own needs. Department of Telecom (DoT) would be the nodal department for this scheme.

Pillar 9: Early Harvest Programmes

a. IT Platform for Messages

A Mass Messaging Application has been developed by DeitY that will cover elected representatives and all Government employees. 1.36 Cr mobiles and 22 Lakh emails are part of the database.

b. Government Greetings to be e-Greetings

Basket of e-Greetings templates have been made available. Crowd sourcing of eGreetings through MyGov platform has been ensured. E-Greetings portal has been made live on 14 August 2014.

c. Biometric attendance

An AADHAR Enabled Bio-metric Attendance System (AEBAS) will be installed in all offices of the Central Government located in Delhi by 31st December 2014 and in other places by 26th January 2015.

d. Wi-Fi in All Universities

All Universities on the National Knowledge Network (NKN) shall be covered under this scheme. Ministry of Human Resource Development is the nodal ministry for implementing this scheme.

e. Secure Email within Government

- f. Public Wi-fi hotspots Cities with population of over 1 million and tourist centres would be provided with public wi-fi hotspots to promote digital cities. The scheme would be implemented by Department of Telecom (DoT) and Ministry of Urban Development.

- g. School Books to be eBooks All books shall be converted into eBooks. The Ministry of Human Resource Development / DeitY would be the nodal agencies for this scheme.

- h. SMS based weather information, disaster alerts SMS based weather information and disaster alerts would be provided. DeitY's Mobile Seva Platform is already ready and available for this purpose.

- i. National Portal for Lost and Found children

- a. This would facilitate real time information gathering and sharing on the lost and found children and would go a long way to check crime and improve timely response.
- b. Department of Women and Child Development (DoWCD) would be the nodal departments for this project.

Initiatives Under Digital India Programme:

Some of the facilities provided under the initiative of Digital India are as follows:

1. Digi Locker:

Digital Locker facility helps citizens to digitally store their significant documents like PAN card, passport, mark sheets and degree certificates. Digital Locker offers secured access to Government issued documents. Its target is to eliminate the use of physical documents and allow the sharing of verified electronic documents throughout all the government agencies.

2. Attendance.gov.in:

Attendance.gov.in is a website, launched by PM Narendra Modi to keep a record of the attendance of Government employees on a real-time basis. This initiative has started with implementation of a common Biometric Attendance System (BAS) in the central government offices located in Delhi.

3. MyGov.in:

MyGov.in is a platform to share inputs and ideas on matters of policy and governance. Digital India is a platform for Indian Citizens engagement in governance, through a 3D "Discuss", "Do" and "Disseminate" approach.

4. SBM Mobile app:(SWACHH BHARAT MISSION)

Swachh Bharat Mission (SBM) Mobile app is being used by people and Government organizations for achieving the goals of Swachh Bharat Mission.

5. E-Hospital:

The e-Hospital application provides important services such as online registration, payment of fees and appointment, online diagnostic reports, enquiring availability of blood online etc.

6. National Scholarship Portal:

National Scholarship Portal is a one-step solution for end to end scholarship process right from submission of student application, verification, sanction and disbursement to end beneficiary provided by the Government of India.

7.E-Sign framework:

E-Sign framework allows citizens to digitally sign a document online using Aadhaar authentication.

Findings of The Study

Digital India has considerably reduced the distance between Government and citizens. It has also helped in delivery of substantial services directly to the beneficiary in a transparent and corruption free manner. . The programme is centred on three key vision areas, namely digital infrastructure as a core utility to every citizen, governance and services on demand, and digital empowerment of citizens. It is built on nine pillars. And also Some of the facilities provided under the initiative of Digital India Programme. The overall goal is to ensure that digital technologies improve the life of every citizen, expand India's digital economy, and creating investment and employment opportunities and create digital technological capabilities in India.

Conclusion

Digital India is an ambitious programme of the government having the objective of taking nation forward digitally and economically.. Digital India scheme can elevate India from all evils such as illiteracy, poverty, unemployment and this scheme will work like nectar for backward areas of India and will help in creating new India. This project makes easy the development of country by promoting e-services to all and many programs have been moved from planning phase to execution phase .several schemes have been adopted successfully. Services like Digilocker are now being used by four million users. This project makes easy the development of country by promoting e-services to all and many programs have been moved from planning phase to execution phase. The digital India program has impacted the development of our nation hugely.

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A Study on Women Empowerment Through SHG – Realities And Challenges.

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Abstract:

Nations developing is different from that of women in developed countries, the empowerment of women is a significant issue as the condition of rural women is still very pathetic in India. Government of India is taking various initiatives decision for the growth of women empowerment and for improving their financial condition. Self-help group (SHG) programme has proved to be an effective programme for empowerment of women. SHGs provide financial facilities to rural women which helps in starting entrepreneurial activities and motivating women for establishing new small businesses. Women are participating in training and capacity building programmes and are utilizing the loan amount for their improving financial conditions and self-empowerment. Secondary sources of data were used for achieving the purpose of the paper. This discuss the government invites to development of women entrepreneurship through the SHG and what are the reality and challenges of women entrepreneurs.

Keywords: Women entrepreneurship, development, SHGs, Women Empowerment, Government initiatives, Financial statues.

Introduction:

There are half of the population are women of India and in that most of the population are involve in primary sector. Women involvement are more in primary sector or rural area. India can't have overruled to the world to ignore development or empowerment of women. SHGs is the best way to reach and change the condition of women of among the country. Its much better way to development of women empowerment through the SHGs.

Women are the by born economist. They are very well knowing the way of how to use limited sources for maximum utilization. This is routine part of her life. She saves the money in given budget and help the family in needed time and help the family for upliftment. It means women is natural saver and investor. I think these qualities are made to her more powerful. Self-help groups are promoting these kind of qualities of women that's why women participation are increasing in Self-help group. Therefor the study has been carried out to see the involvement of SHGs for development of women empowerment. This study also discussed the realities and difficulties faced by the women to become an entrepreneur.

Research Methodology:

Objectives of Studies:

- 1) Trend and Pattern of women employment in entrepreneurship
- 2) Challenges faced by women entrepreneurs.
- 3) Government schemes analyses for women empowerment

Women Entrepreneurship

The number of women entrepreneurs is increasing all over the world but the condition of women in developing nations is different from that of women in developed countries. In India, the

empowerment of women is an important issue as the condition of rural women is still very pathetic. Government of India is taking various initiatives for the development of women and for improving their economic condition. Self-help group (SHG) programme has proved to be an effective programme for empowerment of women. SHGs provide financial facilities to rural women which helps in starting entrepreneurial activities and motivating women for establishing new small businesses. Women are participating in training and capacity building programmes and are utilizing the loan amount for income-generating activities. SHG members take mutual decisions related to production and marketing. Secondary sources of data were used for fulfilling the purpose of the paper. This paper attempted to explain the role of SHGs in women entrepreneurship development. It highlighted the opportunities provided through SHGs as well as through different schemes of government for entrepreneurship development. The challenges in the way of women entrepreneurs are also discussed. The result of the study will help policymakers in framing policies for the development of women entrepreneurs and provide future direction to researchers.

Entrepreneurship Development of women Through SHG

Strength and weakness, both are the different sides of the same coin. Hence, all involved group members of SHG must realize that they all work with their own individual strengths and weaknesses. No one should be blamed for one's weakness i.e. all SHG members are equally responsible for success and failure of their entrepreneur. Self-help group can take a lead in any of the income generating activities by which group members can get employment and enhance their

family socio-economic status. The group provides a platform to women for income generation with co-operative and mutual helping attitude.

Characteristics of Ideal SHG According to MARADA [2000] well-functioning SHG should have following structural features:

- An ideal SHG comprises 15-20 members.
- All the members should belong to the same socio-economic strata of society.
- Rotational leadership should be encouraged for the distribution of power and to provide leadership opportunities to all the members.
- Member should regularly attend meetings, save money and participate in all activities voluntarily.
- The procedure of decision-making in SHG should democratic in nature.
- The group frames rules and regulations, which are required in its effective functioning.
- Transparency in account keeping and accounts should be maintained and updated regularly.
- An SHG should be socially viable institution.

Role of SHG to Empowering Women

The self-help groups empower women and train them to take active part in the socio-economic progress of the nation and make them sensitized, self-made and self-disciplined. The SHGs have inculcated great confidence in the minds of rural women to succeed in their day-to-day life. SHGs enhance the quality of status of women as participants, decision makers and beneficiaries in the democratic, economic, social and cultural spheres of life. The SHGs bring out the capacity of women in moulding the community in right perspective and explore the initiative of women in taking the entrepreneurial ventures. SHGs also organize women to cope with immediate purposes depending on the situation and need. Participation of women in SHGs makes a significant impact on the empowerment in social aspect also. Participation helps women come out in open and discuss their problems. It also helps to bring about awareness among rural women about savings, education, health, environment, cleanliness, family welfare, social forestry, etc. Researches also reveal that increased participation of women in decision making at all level will help to adjust the goals pursued through development. Empowerment should be extremely induced so that women can exercise a level of autonomy. There should also be 'self-empowerment' so that women can look at their own lives. The process of 'learning by doing

and earning' would certainly empower rural women. More and more rural women need to be involved in self-employment. Self-employment in agriculture, village and small industries and retail trade and services should be expanded. Self-employment is also conducive to the development of individual initiative and entrepreneurial talent and offers greater personal freedom. The added advantage is that the institution of family remains undisturbed. The emergence of self-help groups in this context is a welcome development.

The Economic Survey 2022-2023, presented by the Union finance minister to Parliament January 31, has a special mention of India's little-known but high-impact banking operation: the women-led self-help groups (SHG) disbursing billions of rupees every year.

India boasts of some 12 million SHGs, of which 88 per cent are all-women-member ones. These groups usually consist of 20-25 members, mostly residents of villages. In 1992, these groups were linked to banks for disbursement of small loans — called SHG Bank Linkage Project, SHG-BLP — for taking up livelihood options, like livestock rearing or setting up a tailoring unit.

By 2022, these groups operate a financing operation that is regarded as the world's largest microfinance project. According to data cited in the Economic Survey 2022-2023, SHG-BLP covers 142 million families with saving deposits of Rs 47,240 crore.

"The number of SHGs credit linked has grown at a CAGR of 10.8 per cent during the last ten years (FY13 to FY22), while credit disbursement per SHG has grown at a CAGR of 5.7 per cent during the same period," notes the Economic Survey 2022-2023.

Through the Economic Survey 2022-2023 report, it has been mentioned several times how India's commercial banks have healthy balance sheets. This is mostly due to massive waiving off of non-performing loans.

But for the loans under SHG-BLP, there are hardly any loans turning into bad ones that are to be waived off. "Notably, SHGs' bank repayment is more than 96 per cent, underscoring their credit discipline and reliability," says the Economic Survey 2022-2023.

Across the country, states have been declaring special economic packages for SHGs as part of overall livelihood development programmes. Under the National Rural Livelihood Mission (NRLM), the government has set a target of increasing each SHG's income to Rs 1 lakh by 2024. To do so, microfinance linked to livelihood development is the key strategy.

In 2021, the government, under its COVID-19 pandemic stimulus package, increased SHGs' limit for collateral-free loans to Rs 20 lakh from Rs 10 lakh. This reportedly benefited 6.3 million women SHGs and 68.5 million households.

The Economic Survey, a statement on the state of the economy and recommendations on key development policies, argues that the women SHGs must be made the centre of rural development as they have already been demonstrated as an effective local community institution.

"It may be noted that more than 75 per cent of rural female workers are employed in the agricultural sector. This implies a need to upskill and create employment for women in agriculture-related sectors such as food processing. Here, the self-help groups (SHGs) can play a crucial role in shaping rural women's potential into concrete developmental outcomes of financial inclusion, livelihood diversification, and skill development," it says while recommending that these groups be further strengthened with access to loans and markets for their produce.

According to Ministry of rural Development Report Des.2022 that the Loans are sanctioned by the banks in the name of Self Help Groups(SHG). The distribution of loan to individual SHG members is done by the SHG, which is used by them for various activities. It is stated in the written reply that the loans outstanding to Self Help Groups (SHGs) as on 30th November, 2022 is Rs. 1,68,920.11 Crores. The Loan repayment rate by SHGs to Banks is 97.71% as on 30th November, 2022. And Impact of the Deendayal Anthodia Yojana-National Rural Livelihoods Mission (DAY-NRLM). An impact evaluation study of DAY-NRLM was conducted during 2019-20 by the International Initiative for Impact Evaluation (3ie) with the support of the World Bank. The assessment covered 9 states with around 27,000 respondents and 5,000 SHGs across Bihar, West Bengal, Odisha, Jharkhand, Madhya Pradesh, Chhattisgarh, Maharashtra, Rajasthan and Uttar Pradesh. The evaluation indicates that an additional exposure to the Mission for 2.5 years led to:

- I. Increase in income by 19% over the base amount.
- II. Decline in share of informal loans by 20%
- III. Increase in savings by 28%
- IV. Improved labour force participation - proportion of females reporting secondary occupation is higher (4%) in treatment areas.
- V. Improved access to other Schemes - Significant increase in number of social schemes availed by treatment households

(6.5% higher over the base value of 2.8 schemes)

According to a 2021 government press release, around 70 lakh SHGs, engaging 7.66 crore women, are functioning across India

Problems And Constraints

a) Social barriers

In our man dominating society women entrepreneurs are always seen with suspicious eyes, situation in rural areas is too worse.

b) Caste and Religions

Though India is a secular country, so many castes and religions dominate with one another and it restricts women entrepreneurship.

c) Lack of self-confidence and risk bearing capacity

Women have lack of self-confidence and always feel that they may not be successful and hence hesitate to take risk. Their risk bearing capacity is always less than man.

d) Psychological factors

Mostly women feel that she is 'women' and less effective than man. Secondly, Family and home maintenance is her moral duty if she is engaged in work than how can she manage both or play dual role? She has to strive hard to balance her family life with care and hence feels better to be housewife.

e) Lack of family support

Due to some taboos and restriction, which are still prevalent in our society woman is not getting enough support by her husband and family members to undertake any entrepreneurship.

f) Marketing problem

Market for a small enterprise in a developing country can be quite a problem considered that the small entrepreneur will be in competition not only with locally mass-produced goods but even imports. Small enterprises must therefore prove that in quality and price of their product they are comparable. Small enterprises can brand together and sell their products as one body through closely-knit associations or organizations. The Government too can take an active part in marketing specific products or assisting small groups of entrepreneurs in selling their products.

g) Lack of information

Women entrepreneurs have lack of information regarding advance and innovative technology. Even they lack of knowledge regarding govt. policies and subsidy to permute women entre

Conclusion:

In India Women empowerment is a process in which women challenge the existing situation to effectively promote their well-being. The participation of women in Self Help Groups (SHGs) made a significant impact on their empowerment both in social and economic aspects. Government at centre and states has organized specific programs for promoting women entrepreneurship and getting their talent useful to the society. But still, rural women are not getting benefits, due to ignorance and marketing problems. is an urgent need to popularize these programs and proper marketing strategy should be planned and implemented, which will provide scope for women entrepreneurs? The women only 8 percent of the small scale-manufacturing units are run exclusively by women entrepreneurs which are proportionately very small as compared to others developed and developing countries. In USA about 50 percent of the business is owned by women

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National Education Policy 2020: An Overview

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Abstract:

National Education Policy-2020 is a knowledge document of the 21st century. It aims to promote all round development of an individual and aims to make education accessible to everyone. India has become the epicenter of knowledge based economy and India's contribution to the global economy is significant. Our education system had been rigid in the past. Multidisciplinary and holistic education was as challenge but NEP-2020 has made it possible to make our teaching and learning more vibrant, inclusive, flexible and multidisciplinary. Online education is the new reality. The new education entirely based on five pillars i.e. access, equity, quality, affordability and accountability. The NEP-2020 persists in the current education system, intending to improve the quality of the education system in India. Actually knowledge is power but skillful knowledge is everything. It is time to restructure in higher education in this new education policy tremendous changes have been made.

Keywords: National Education Policy (NEP), Higher Education, Academic Bank of Credits (ABC)

Introduction

The education plays enormously significant role in building of a nation. There are quite a large number of educational institutions, engaged in imparting education in our country. Majority of them have entered recently into semester and choice based credit system to match with international educational pattern. However, our present education system produces young minds lacking knowledge, confidence, values and skills. It could be because of complete lack of relationship between education employment and skill development in conventional education system. The present alarming situation necessitates transformation and redesigning of education system, not only by introducing innovations but developing 'learner-centric approach' in the entire education delivery mechanism and globally followed evaluation system as well. Majority of Indian higher education institutions have been following marks or percentage based evaluation system, which obstructs the flexibility for the students to study the subject of their choice and their mobility to different institutions. There is need to allow the flexibility in education system, so that the students depending upon their interests and aims can choose interdisciplinary, intra-disciplinary and skill based courses.

Education is the foundation for promoting national development to develop an equal and justice society to enable human beings to realize their full potential. Today in the 21st century in India largest population is youth in the world. Making India a globally knowledge superpower by providing high quality education to all. Human rights the knowledge for sustainable development

and living a better life, value and especially to develop character, global citizens. NEP-2020 is not a revision or a new look of the old National Education Policy. It is a universal education policy fully dedicated to the nation. Innumerable changes in the world through information technology especially the speed of change has increased very much in increasing the rate of development of any nation, the education policy of that nation is very important. Although higher education is an important factor in it, its basic foundation is laid in primary and secondary schools. Comprehensive education is the mainstream of life. NEP has replaced the old academic structure of 10+2 with 5+3+3+4.

Education is a public service with full equality and all inclusiveness in the education decision making. The new educational policy assumes that every student has certain unique abilities to discover and consciously strive to develop them. In the implementation of National Education Policy- 2020 require a collective effort to realize the dream of a new glorious and strong India through collective development by taking the knowledge base of education to all sections of the society.

The National Education Policy of India (NEP 2020), approved by the Union Cabinet of India on 29 July 2020, outlines the vision of the new education system of India. It replaces the previous National Policy on Education, 1986. The vision of the policy is to build an education system rooted in Indian ethos that contributes directly to transforming India by providing high-quality education to all, thereby making India a global knowledge superpower.

National Education Policy-2020 is a knowledge document of the 21st century. It aims to

promote all round development of an individual and aims to make education accessible to everyone. India has become the epicenter of knowledge based economy and India's contribution to the global economy is significant. Our education system had been rigid in the past. Multidisciplinary and holistic education was as challenge but NEP-2020 has made it possible to make our teaching and learning more vibrant, inclusive, flexible and multidisciplinary. Online education is the new reality. The new education entirely based on five pillars i.e. access, equity, quality, affordability and accountability. The NEP-2020 persists in the current education system, intending to improve the quality of the education system in India. Actually knowledge is power but skillful knowledge is everything. It is time to restructure in higher education in this new education policy tremendous changes have been made.

Objectives

1. To review the pillars of the National Education Policy-2020.
2. To study the new changes in the implementation of the National Education Policy-2020.

Research Methodology

The paper is descriptive in nature so the data required for the paper is secondary data. Secondary data were collected from various published and unpublished papers, journals, books, articles, reports, magazines and websites.

5 Pillars of National Education Policy-2020:

NEP-2020 is based on 5 Pillars which includes- Access, Equity, Quality, Affordability and Accountability.

- **Access-** all students irrespective of caste, creed, location or gender should have access to elementary education of comparable quality.
- **Equity-** offering individualized support to students.
- **Quality-** delivers quality education to all the students.
- **Affordability-** free and compulsory education for 3-18 years students.
- **Accountability-** It is the collection of policies and procedures used to hold schools and districts accountable for improving educational outcomes for all students and forcing and facilitating needed improvements.

National Education Policy-2020: Important Highlights-

1. Gross Enrollment Ratio:

The NEP 2020 lays down the framework for transformational reforms in school and

higher education systems in the country. The new policy targets a 100% Gross Enrolment Ratio (GER) in school education in next 10 years (by the year 2030) and also envisions universalization of education from pre-school to secondary level.

2. Vocational & Professional Education:

The NEP 2020 can potentially lead to explosive growth of vocational education in the country, since it requires all educational institutions to integrate vocational education into their offerings. This will bring in a very large number of schools, colleges and universities into the fold of potential Vocational Education and Training providers during the coming decade and make vocational education available to millions of students.

3. Multidisciplinary Education:

Multidisciplinary education is a concept that has been embraced by the Indian government through the new National Education Policy (NEP) 2020. This approach to learning looks at how different disciplines can interact and overlap with each other to create a comprehensive understanding of a subject.

4. Holistic Approach:

Holistic Education is the Soul of National Education Policy 2020. Holistic education prepares a student for lifelong learning. The educational focus moves toward the life skills, attitudes, and personal awareness the student will need in an increasingly complex world. The holistic approach to education develops a learner's social and academic maturity to accept life's challenges, build their understanding, and learn from their errors.

5. Digital Education:

The present age is digital technology-driven age and the internet is influencing the whole globe. The internet equipped both the education seeker as well as education provider and laid them together under the virtual roof. Due to which the concept of virtual classroom is already popularized across the globe. Therefore, in the modern era, the role of online technology in providing the education is vital and with its flexible nature the online educational technology has gained popularity. The role of online education is anywhere and anytime but also for promoting successful learning for the learners. Consequently this emerged role has introduced the concept of smart learning environment.

A Study of Impact of “Make in India” Campaign on Indian Economy & Manufacturing Sector.

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Abstract:-

‘Make in India’ initiative was launched in September 2014 by the Government of India with the aim to promote manufacturing in India. As the name suggests, it calls on Industries, Entrepreneurs and small business houses to set up their manufacturing facilities within India. Make in India is an international marketing policy slogan given by the Prime Minister of India, Narendra Modi to attract businesses from around the world to invest and manufacture in India. This policy has been implemented to fulfill the purpose as to create employment opportunities, Enforcement to Secondary and Tertiary sector, to enhance national economy, facilitate investment, foster innovation, Converting the India to a self-reliant country and to give the Indian economy global recognition.

Make In India which is the policy of PM Narendra Modi’s aims to make India the manufacturing hub of the world. The primary objective of this initiative is to attract investments from across the globe and strengthen India’s manufacturing sector. The “Make in India” initiative is based on four pillars, which have been identified to give boost to entrepreneurship in India, not only in manufacturing but also other sectors.

Keywords:- (Make in India, Secondary and Tertiary sector, foster innovation, self-reliant. Manufacturing hub)

Introduction:-

P rime Minister of India, Mr. Narendra Modi said while introducing the programme, at Independence Day speech from the Red Fort on August 15, 2014. “I want to tell the people of the whole world: Come, make in India. Come and manufacture in India. Go and sell in any country of the world, but manufacture here. We have skill, talent, discipline and the desire to do something. We want to give the world an opportunity that come make in India,” The focus of Make in India programme is on 25 sectors. These include: automobiles, aviation, chemicals, IT & BPM, pharmaceuticals, construction, defence manufacturing, electrical machinery, food processing, textiles and garments, ports, leather, media and entertainment, wellness, mining, tourism and hospitality, railways, automobile components, renewable energy, biotechnology, space, thermal power, roads and highways and electronics systems.

It is an initiative campaign run by the Government of India to cheer up multinational companies as well as domestic companies at national and international level in order to manufacture products in India. It is a big step taken by the government of India to reduce the level of unemployment faced by the youths of the country. This campaign is to lead India towards an effective destination as well as grow the Indian economy ahead. It provides a successful track of employment to the youths of country which will surely help in reducing the poverty level and other social issues in India.

- To understand the concept & Objectives of Make in India Initiative.
- To understand the impact of Make in India.
- To know the & Benefits of Make in India Campaign

Research Methodology:-

For this research paper I have collected secondary data only. This data is collected from different websites, research journals, media, books, government reports etc.

Aims & Objectives of Make In India Initiative:-

- ❖ First and most important objective is to convert India into a global manufacturing hub.
- ❖ To help create jobs and boost economic growth.
- ❖ Providing employment opportunities to youngsters
- ❖ To make healthy relationships with worldwide nations.
- ❖ To make India digital Country.
- ❖ Companies across the globe would be invited to make investment and set up factories and expand their facilities in India. Using India’s highly talented and skilled manpower to create world class zero defect products.
- ❖ To urge both local and foreign companies to invest in India.
- ❖ The initiative also aims at high quality standards and minimizing the impact on the environment.

Objectives:-

Advantages of Make in India:-

1. **Develop Job Opportunity:-**

One of the main purposes of Make in India Campaign is to provide Job Opportunities for as many people of India as possible. It has targeted the young generation of the country as its prime beneficiary. The investments in the targeted sectors, i.e. telecommunications, pharmaceuticals, tourism etc. will encourage the young entrepreneurs to come forth with their innovative ideas without worrying about the source of speculation. It will lead to the creation of many job opportunities. Around ten million people are expected to get jobs. An increase in investment will bring employment opportunities for the skilled labor force and this will form a job market.

2. **Attract More Foreign Direct Investment (FDI):-**

It will welcome more FDI. Since the government had promised to improve the ease of running businesses in India, many foreign Industrialist will start up their manufacturing in India which will help to attract many FDI.

3. **Boost India's Economic Growth:-**

The make in India campaign will lead to an increase in exports and manufacturing. An increase in exports will improve the economy and India will be transformed into a global hub of manufacturing through global investment using the current technology. Manufacturing will also boost India's economic growth and GDP.

4. **It will help to develop Rural Areas :-**

It is well-known, when a factory set up not only it improves a particular area, but also provides for the local people with employment, and due to that per capita income of the individual increases thus the quality of life and standard of living of the people will automatically enhance. Amenities like schools, hospitals, Roads, Railway connectivity, Infrastructure Facilities, Bridges, Electricity & water supply and other public conveniences will be developed for the betterment of the public.

5. **Attracting the Young generation:-**

As we know that there are many youths who are educated and skilled but are facing the problem of unemployment. Make in India is a boon for this people. These initiative helps to young generation of India to move out of the country in the hope of a better future. With the make in

India campaign, the youth will be attracted to stay in the country and contribute their creativity and new ideas for the betterment of the country and for better future of themselves.

Impact of Make in India on Indian Economy:-

Make in India policy Creates a policy to ease foreign investment, ease of business and management of intellectual property. This helps industries to develop their businesses in India. In turn, this helps create employment and to reduce the poverty of India. Exports from such industries help in contributing to our foreign exchange reserve. Most importantly, such an initiative helps bring critical knowledge about manufacturing and production into the Indian population.

This initiative, by Mr. Modi is like inviting the developing and developed countries to step up their branches in India and invest their money for the future of India. It's like inviting the countries to set up their companies in India and manufacture in the territory of our country.

This initiative has positive impact on India. when big and multinational companies will set up in India, it will help to increase the GDP of India. Almost every sector is capital-intensive and demands a lot of skill. So, with the more and more investment in these sectors, the main focus will be on increasing employment and the use of advanced technology.

Impact of Make in India on Manufacturing Sector:-

The prime motive of Make in India initiative is to strengthen the manufacturing sector. This policy mainly focuses on this sector just because there is a lot of scope of growth, employment, and contribution in the economy from this sector. This sector can create products which can be ecofriendly as well as they can reduce the negative effect on environment. Another main motive of the policy was to increase the employment in this sector. Since manufacturing is to be increased, then the employment opportunities will automatically rise up.

The poor and the unemployed will get a chance to get involved in this sector. The employment will generate income, and that, in turn, will increase the purchasing power of the people and will be helpful in reducing poverty and raising the standard of living of the people. If we produce goods which carry zero defects, then our exported goods are never returned to us.

Findings:-

- ❖ As we know that maximum population from our Country is busy in Primary sector

that is agriculture sector & the importance to industrial sector will impact our agriculture sector.

- ❖ Maximum focus to industrial sector will reduce our natural resource & may result in various types of pollution and its adverse effect on environment, health of general public etc.
- ❖ As the Initiative is to welcome Foreign Direct Investment (FDI) on large scale will affect our domestic & small entrepreneurs and which in turn will impact on our GDP.
- ❖ For fruitful result of the Campaign it is necessary to improve our infrastructure facilities.

Suggestions:-

- ❖ Skill development program:- This program should be organized for employees to upgrade their skill and knowledge so that we can produce new & innovative product which will result in for domestic players to stay alive in the market.
- ❖ Ease-up import restrictions:- This will help to import new technologies from other countries which will develop our Manufacturing Sector.
- ❖ Development of Infrastructure facilities:- As goods will be manufactured in the Industry but it requires good transportation system to transfer this goods all over the country.

- ❖ Good Salary packages:- As maximum of our educated & skilled youths are working for foreign countries due to their attractive packages. So it is necessary to motivate our employees by giving them good packages and incentives.

Conclusion:-

Make in India is an ambitious project, with an aim for sustainable growth of the country. Make in India is well recognized part of India's economic future. It remains an ingredient of economic affair but still many are not aware about its contribution to the growth. Make in India creates job opportunities and looks for overall development of India. "Make in India" mission is one such long term initiative which will realize the dream of transforming India into manufacturing Hub. Make in India scheme also focuses on producing products with zero defects and zero effects on environment.

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A Role of RSETI in Rural Development with Special Reference to Nanded District

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Abstract:

This study reviews the role of RSETI in Rural Development in Nanded District. Researcher has focused on SHG members for this study. The objective of the study is to study the Entrepreneurship skills provided by RSETI as well as Impact of Entrepreneurship skill on SHG group under RSETI Training in Nanded District. Rural Self Employment Training Institute (RSETI) is a replicated model of Rural Development and Self Employment Training Institute (RUDSETI) and a unique initiative which not only imparts training to the rural youths for different economic activities but also extends supports to beneficiaries to settle through self-employment by providing credit linkage to the beneficiaries. RSETI Institutions designed as to ensure necessary skill training and skill up gradation of the rural BPL youth to mitigate the unemployment problem. The SHGs plays a major part in achieving a sustaining livelihood by easing the rural women to enter into entrepreneurial conditioning. Globally, it's slowly proving one of the most effective strategies to neutralize poverty.

Keywords: RSETI, Entrepreneurship Skills, SHG, RUDSETI.

Introduction:

The task and effectiveness of RSETI in enhancing entrepreneurship skill of SHG is required in Nanded district as well as SHG plays an important role in making them realize their importance of empowerment. SHG makes women to bring out their potentials and capabilities and make them confident to face the challenges more effectively through entrepreneurship. It has also made women have financial independence to attain social up lightment.

RSETIs an initiative of Ministry of Rural Development(MoRD) to have dedicated infrastructure in each district of the country to impart training and skill up gradation of rural youth geared towards entrepreneurship development. RSETIs are managed by banks with active cooperation from the Government of India and State Governments. RSETI are provided with several skill development trainings, soft skill training for rural youth. The study have conducted at Kolhapur districts of Maharashtra.

Entrepreneurship is a process of changing ideas into commercial opportunities and creating value. It isn't only creation of business but a dynamic process of vision, change and creation. It requires application of energy and passion towards the creation and implementation of new ideas and creative solution. Women entrepreneurs are the woman or group of women who initiate, organize and operate a business enterprise. The growth and development of women entrepreneurs required to be accelerated because entrepreneurial development isn't possible without the participation of women

Review of related research:

- Now a days or young generation facing a basic problem i.e. unemployment in many sectors. To be a good education is part of literate personality, but after what after education? Sushma (2007) has discussed in large aspects in her research paper regarding outcomes of RUDSETI Training: "studied the profile of RUDSETI trainees of district Dharwad in Karnataka and found that greater number of trainees were young and most of the trainees were literate not graduates. Most of the trainees belong to small families with medium size income group or low income group, indicating that the small families are more aware, educated and have greater exposure to external world and people having moderate or less than moderate income go for such trainings"
- RSETI Playing the important role in rural entrepreneurship development with the business settlement and credit linkage criteria. There are number of trainees taken benefits of this RSETI imparted training and tried to start their own business with available resources and skills given by RSETI. Laxman (2008) disclosed the outcome of RSETI in the form of settlement and credit linkage in his research paper. : "**Laxmana (2008)** reported that the majority of the trainees (77.35%) had started their business after the training. The trainees who had not started yet had planned to start their enterprises. This depicts that the real objective of the EDP training to create first generation entrepreneurs was achieved. In fact this is a

first study to throw the light that how these local enterprises set up by RSETI trainees generate local employment opportunities for others. Nearly 203 jobs have been created in one year by 54 units started by RSETI trainees. Bank credit linkage is very low as per the study as just 16% of trainees go for credit linkage. Thus, further research is required to analyses the reasons why trainees have less access to bank credit when banks are giving loan facility at nominal rate of interest"

- Caliendo and Kritikos. (2011) gave a new insights into the effects that variables, such as risk tolerance, trust and reciprocity, the value for autonomy and also external role models, have on entrepreneurial decision making. And found the linkage between personality, socio-economic factors and entrepreneurial development.
- Javer, Ignacio, Eduardo, and Jose (2014) studied about entrepreneurial attitude and personality and they identified nine dimensions on entrepreneurial personality like achievement motivation, risk taking, innovativeness, autonomy, internal locus of control, external locus of control, stress tolerance, self-efficacy and optimism. They confirmed hem after several qualitative and quantitative analysis.
- Obschonka and Stuetzer (2017) studied the entrepreneurial personality by applying a person oriented model including the traits like risk-taking, self-efficacy, and internal locus of control and revealed that the effect of intra individual personality traits are more malleable psychological factors.

Objective of Research Study:

- To study the Entrepreneurship skills provided by RSETI
- To Study outcome of RSETI's through Rural Development.
- A Study of Settlement ratio of SHG Groups in Nanded District.
- To Study impact of Skills on SHG Members

Need and Significance:

RSETI are provided with entrepreneurial development programme grounded on the felicity of the conditioning to the original requirements. They're considerably divided into four. They are; General Entrepreneurial Development Programmes, Agricultural Entrepreneurial Development Programmes, Process Entrepreneurial Development Programmes and Product Entrepreneurial Development Programmes. General EDPs takes

care of all the aspects of encouragement, entrepreneurship, business selection, marketing, management skills and launching formalities. Combining skills of farming with entrepreneurship are included in agricultural grounded EDPs. The process acquainted EDPs are included the training on service and technology and product EDPs trains the creativity and skill of product. In RSETIs above seventy percentage of the trainees are from rural women population. All the entrepreneurial development programmes must insure the development of these personality traits among the trainees. There are personality development sessions also included in the programmes conducted by RSETIs. The investigator interested to know the effect of training in entrepreneurial personality of rural women. This study may contribute towards the class development of entrepreneurial development programmes in the light of entrepreneurial personality development including gender equivalency.

Scope of the Study:

Nanded is a city in Maharashtra state, India. It is the second largest city in Marathwada region. There are end numbers of Self Help Groups in Nanded run by different tribes both male and female from all walks of life. But when we take a closer look we see that the SHGs are mostly operated by the women folk (mostly housewives). These women are not only from the rural areas but also from the urban areas as well.

From this study the researcher able to find out role of RSETI in rural Development after forming SHGs have bought changes in the economic and social status of the women. Since this study focused mainly on women empowerment, the women working in SHGs will be interviewed and asked questions about how and why they choose to form the group and in what way they have benefited and whether forming this group have made them more independent. The researcher able to find out whether joining or forming Self Help Group has any positive and negative impact on their life as well as within their family through this study.

Limitation of Study :

- This study is limited to a Study of Role of Rural Self Employment Training Institute (RSETI) in Rural Development in Nanded District.
- This study only focusing on Rural Self Employment Training Institute (RSETI) in Enhancing Entrepreneurship Skills of Self Help Group (SHG).

- There are number of aspects regarding skills training in rural development, all are not discussed in the research paper.
- There are many stake holders and they are having different roles in rural development, also these all are not elaborated.

Methodology:

The research paper is a type of the exploratory research, based on the secondary data sourced from the national banks, RSETIs Institutes, and different articles. The data which are available as secondary are basically used for the study. A requirements of the objectives as stated in research paper, the research design employed for the study is of descriptive type.

Role of RSETI in Rural Development – Nanded District:

RSETI :

One of the biggest challenges in front of our country is Unemployment problem. RSETI is

making all sincere efforts in imparting training to unemployed youth of Nanded district in the trade of their choice entirely FREE OF COST, to make them able to gain sustainable livelihood. It is aim to empower and enrich target group by building capacity and training and converting it into Small and Micro Entrepreneurship through bank credit for creating livelihood and enhancing financial worth. To create maximum Small and Micro Entrepreneurs from Low Income Group i.e. BPL families and SHGs in the district. To monitor performance of RSETIs, a national level “National Centre for Excellence of RSETIs (NACER)” has been established at Bangalore under the aegis of Ministry of Rural Development (MoRD), Government of India. NACER also conducts grading exercise of all RSETIs annually all over India and assigns grades to RSETIs such as A, B, C and D based on infrastructure availability and performance.

Sr.No.	Training Programme	During 2020-21			Since Inception			Cumulative % of Settlement
		A	B	C	A	B	C	
A	Agriculture EDPs							
1	Dairy Farming	0	0	0	105	5602	5381	96.05
2	Dairy and Vermi Compost	4	90	93	10	256	239	93.36
3	Poultry	0	0	0	3	159	158	99.37
4	Plant Nursery Management	0	0	0	16	838	800	95.47
5	Multi Cropping Farming	0	0	0	1	28	28	100.00
6	Goat Rearing	0	0	0	1	49	44	89.80
	Total	4	90	93	136	6932	6650	95.93
B	Product EDPs							
1	Womens Tailor	2	41	32	39	1147	848	73.93
2	Mens Tailor	0	0	1	31	800	662	82.75
3	Preparation of Domestic Items	0	0	0	4	104	94	90.38
4	Embroidery & Jadosy Work	0	0	0	5	112	103	91.96
5	Agarbatti Making	0	0	0	7	235	178	75.74
6	Mfg. of Utility Items from Waste	0	0	0	2	55	55	100.00
7	Fast Food Preparation	0	0	0	1	37	37	100.00
8	Fruit Preservation and Pickle Making	0	0	0	1	26	25	96.15
9	Hand Embroidery	0	0	0	2	43	34	79.07
10	Food Processing and Bakery Product	0	0	0	4	143	139	97.20
11	Bamboo and Care Craft	0	0	0	2	56	55	98.21
12	Gems and Artificial Jewellery	0	0	0	1	22	10	45.45
13	Making of Artistic Clay Product	0	0	0	1	19	18	94.74
14	handicraft manufacturing	0	0	0	2	57	57	100.00
15	Phenyl and Liquid Soap Preparation	0	0	0	4	156	99	63.46
16	Domestic Product Making	0	0	0	3	117	102	87.18
17	Pickle and Product Making	0	0	0	1	35	10	28.57
18	Candle Making	1	28	24	1	28	24	85.71
	Total	3	69	57	111	3192	2550	79.89

C	Process EDPs	A	B	C	A	B	C	Cumulative % of Settlement
1	TV Technician	0	0	0	16	379	311	82.06
2	Beauty Parlor Management	0	0	20	22	662	497	75.08
3	Two Wheeler Mechanic	2	41	7	18	462	337	72.94
4	Motorwinding and Pumpset Repair	0	0	0	2	77	60	77.92
5	Cell Phone Service and Repair	1	21	2	29	784	598	76.28
6	Basic Photography and Vediography	0	0	15	20	486	434	89.30
7	Tourist Guide	0	0	0	1	20	10	50.00
8	GhareluVidyutUpkaranSevaUdyami	0	0	0	15	362	275	75.97
9	Refrigeration and Air Conditioning	0	0	18	12	331	236	71.30
10	Multi Purpose Mechanism	0	0	0	2	45	43	95.56
11	Computer D.T.P.	0	0	4	10	209	151	72.25
12	Computer Basic (WE)	0	0	0	2	42	27	64.29
13	Data Entry Operation (WE)	0	0	0	9	223	149	66.82
14	LMV Owner Driver	0	0	0	17	440	360	81.82
15	Computer Tally (WE)	0	0	2	5	116	38	32.76
16	Catering Business	0	0	0	4	122	87	71.31
17	Work Place House Keeping	0	0	0	2	52	30	57.69
18	Computer Hardware (A+) and Networking (N+)	0	0	3	2	46	22	47.83
19	LED-LCD & Other Digital Appliances Repair	0	0	0	2	50	37	74.00
20	Barefoot Sanitary Engineers for Toilet Making	0	0	0	3	207	114	55.07
21	Sanitary Technician	0	0	0	9	309	208	67.31
22	Masonry & Concrete Work	0	0	0	2	60	51	85.00
23	Construction Technician	0	0	0	2	54	48	88.89
Total		3	62	71	206	5538	4123	74.45

D	General EDP's	A	B	C	A	B	C	Cumulative % of Settlement
1	PMRY	0	0	0	8	220	202	91.82
2	PMEGP	0	0	22	82	2549	2266	88.90
3	REDP	0	0	0	4	128	123	96.09
4	SHG Mgt.	0	0	0	1	48	48	100.00
5	Bank Mitra	1	17	28	4	103	103	100.00
6	General EDPs	4	123	31	6	197	97	49.24
7	MEDP - GST Sahayak	0	0	0	2	53	7	13.21
8	Social Audit	0	0	0	1	27	27	100.00
9	Bima Shakti	1	17	14	2	37	14	37.84
10	Trg. On FLCRP	2	24	0	2	24	0	0.00
Total		8	181	95	112	3386	2887	85.26
Grand Total		18	402	316	565	19048	16210	

A = No.ofBathces, B= No. of Candidates Trained, C= No. of Candidates Settled

RSETI provides handholding support to the trained candidates for two years after training and keepsthem motivated to start their own micro

enterprise. Out of total **19048**trainees since inception, **16210**traineesare settled. Out of which, **7404**trainees are settled with self-investment, **6631**trainees are settled by availingfinancial

assistance from various banks/financial institutions in the district and 2189 trainees are in wage employment. As on 31-03-2021, the cumulative settlement ratio is 85.12%. Institute has conducted 5465 batches of self employment training and trained 19048 candidates, out of which 1943 are SC, 203 ST, 11239 OBC, 1500 Minority Communities members, 11939 are women beneficiaries, 151 Physical handicapped persons and 9777 from BPL families. The cumulative settlement of candidates stands at 16215 (85.12%) is very commendable achievement.

RSETI Sponsored Bank Profile :

State Bank of India (SBI) -

SBI STAR KOLHAPUR RSETI is functioning since February, 2007 under the directives of Ministry of Rural Development (MoRD), Govt. of India for imparting the training to rural unemployed youth. It is run by Bank of India in Kolhapur District being Lead Bank in the District.

Aim of SBI Star Nanded RSETI: To empower and enrich target group by building capacity and training and converting it into Small and Micro Entrepreneurship through bank credit for creating livelihood and enhancing financial worth.

Target of SBI Star Nanded RSETI: To create maximum Small and Micro Entrepreneurs from

Low Income Group i.e. BPL families and SHGs in the district.

Entrepreneurship Development Programme: SBI Star Nanded RSETI had introduced -

1. Implementation of Shramdan
2. Implementation of Yoga
3. Entrepreneurship through conducting simulation games and lectures on different aspects of EDP.
4. Most Important Lessons Learnt Yesterday (MILLY)
5. Skilled training in respective subjects.

As per the directives of MoRD, all the RSETIs in the country are graded every year as on 31st March based on the performance of the RSETIs during the financial year. This exercise is undertaken to assess the health of the RSETIs and to bring about improvements in their functioning. Out of 152 RSETIs managed by SBI, 151 RSETIs have been graded as outstanding during 2020-21 as against 142 during 2019-20 and 134 during 2018-19. Further, 53 RSETIs have secured 200/200 during 2020-21 as against 21 during 2019-20 and 4 during 2018-19.

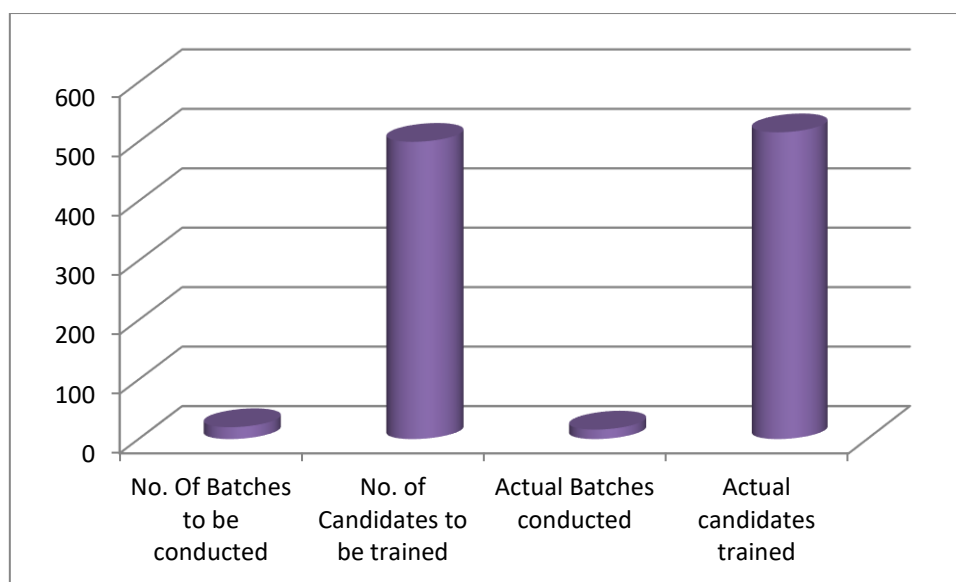
Composition of Training Programs for FY 2020-21:

MoRD, Govt. of India has advised to conduct training programs under categories such as Agriculture, Product, Process, General EDP and Skill up gradation.

Sr.No.	Particular	2020-21		Cumulative	
		No. of Batches	Candidate Trained	No. of Batches	Candidate Trained
1	Self Employed Programs	18	402	554	18783
2	Wage Employed Programs	0	0	11	265
3	Skill Upgradation Programs	0	0	16	413
4	Growth Programs	1	20	3	100
5	Rural Development Programs	1	19	39	5006
6	HRD Programs	5	145	42	1653
7	Sensitization Programs	20	294	122	3044
8	Any Other Trg. Programs /EOP	0	0	1	165
9	No. of Candidates Settled	--	319	--	16215
	A. With Bank Finance		161		6631
	B. With Own Fund		122		7404
	C. Wage Employment		36		2189
10	Settlement Rate (%)		79.35%		85.12

Sr.No.	Category	Examples	No. Of Batches to be conducted	No. of Candidates to be trained	Actual Batches conducted	Actual candidates trained
1	Agriculture	Dairy, Sheep Rearing, Vegetable Nursery Management and Cultivation etc.	7	155	2	90

2	Product	Dress Designing, Papad, pickle & Masala Powder making, Cloth Bag Making etc.	7	145	6	69
3	Process	LMV Driving, Beauty Parlor Management etc.	2	45	2	62
4	General EDP	EDP to BC/BF on Financial Inclusion, EDP to PMEGP beneficiaries etc.	4	45	8	181
		Total	20	390	18	402



Settlement of RSETI trained candidates:

RSETI provides handholding support to the trained candidates for two years after training and keep them motivated to start their own micro enterprise. Out of total **19048** trainees since inception, **16210** trainees are settled. Out of which, **7404** trainees are settled with self-investment, **6631** trainees are settled by availing financial assistance from various banks/financial institutions in the district and **2189** trainees are in wage employment. As on 31-03-2021, the cumulative settlement ratio is **85.12%**. Institute has conducted 5465 batches of self employment training and trained 19048 candidates, out of which 1943 are SC, 203 ST, 11239 OBC, 1500 Minority Communities members, 11939 are women beneficiaries, 151 Physical handicapped persons and 9777 from BPL families. The cumulative settlement of candidates stands at 16215 (85.12%) is very commendable achievement.

Types of Program

1. Agriculture EDP–

Agriculture EDPs intend at disseminating the latest advancements from the laboratory to the land, in the field of agriculture. Furthermore, India, basically being agrarian, offers a lot of opportunities

in the agribusiness sector. Combining skills of farming with entrepreneurship in field of agriculture and various allied activities like dairying, poultry farming, fisheries, agriculture, horticulture, sericulture, mushroom cultivation and floriculture can be a viable option for the rural youth from agricultural background. They can be guided for setting up of agri-clinic as a potential enterprise.

2. Product EDP–

In the present changing scenario and competitive world, innovation and creativity is the need of the day. It has been observed that an entrepreneur with creative and innovative mind and a little of investment can commence his/her own manufacturing unit producing utility articles as a sustainable micro enterprise, that is, dress designing for kids, women and men, agarbathi manufacturing, bags, bakery products, rexine utility articles, football making, leaf cup making and recycled paper manufacturing.

3. Process EDP –

4. The nation has achieved great strides in technology
5. front and there has been a great surge in the production

6. of machinery, equipment, electrical and electronic
The nation has achieved great strides in technology front and there has been a great surge in the production of machinery, equipment, electrical and electronic gadgets. Hence, there is enormous scope for servicing and repairs of these equipment and gadgets. The RSETI envisioned process EDPs related to radio/TV repairs, motor rewinding, two-wheeler repairs, irrigation pump-set repairs, tractor and power tiller repairs, electrical transformer repairs, cell phone repairs, beautician course, photography and videography, screen printing, photo lamination, domestic electrical appliances repair, computer hardware and desktop publishing (DTP).

4. General EDP –

1. It is observed that in each section of society, there are categories of youth who are interested in starting an enterprise and competent of some investments on their own or eligible for a bank loan. These entrepreneurs

It is observed that in each section of society, there are categories of youth who are interested in starting an enterprise and competent of some investments on their own or eligible for a bank loan. These entrepreneurs do not have proper guidance for selecting an enterprise close to their resources and personal preference. They are also in a state of uncertainty about the extent of the activity and investment involved in the enterprise. General EDPs take care of all the aspects of motivation, entrepreneurship, business selection, project planning, marketing, management skills and formalities related to launching of enterprise.

Credit Linkage

Assistance in Credit Linking of trainees by sending the list of candidates to bank branches and coordinating with them for extending financial assistance under SGSY or any other Government-sponsored scheme or direct lending is provided by the Director, RSETI. Certificates issued by a RSETI are recognized by all banks for purposes of extending credit to the trainees.

Women Empowerment

RSETIs give equal opportunities to women entrepreneurs. There are number of examples where women-led enterprises have achieved success. Therefore, RSETIs organize exclusive programmes

for women in various trades depending upon their attitudes and local demand.

Settlement of Entrepreneurs after RSETI Training

As mentioned already, the secondary source reveals that lakhs of youths have been trained as well as settled through self-employment under the umbrella of RSETI. Several authors (Chatterjee and Rao, 2016; Rao and Chatterjee, 2016; Velu, 2016; Chatterjee, 2017) have published success stories from the various parts of country. The youth who have trained from RSETI and started Micro Enterprises are earning in the range of Rs 5,000–30,000 per month. In good number of cases, the earnings have crossed Rs 50,000 per month (NACER, 2017). These are based on the study from the primary source and it divulges the fact that RSETI has brought usher of hope to the lives of BPL rural families to survive with dignity. It is worth to mention that ‘Little drops of water, little grains of sand, Make the mighty ocean and the pleasant land’.

Conclusion:

Many successful entrepreneurs imbibed technical skills and soft skills at RSETIs and proved themselves as an achiever. The misconception that entrepreneurs cannot be created or the poor cannot be an entrepreneur, needs to be dispelled. In fact, the poor are the best entrepreneurs because they manage to survive despite working under severe constraints of resources, assets and endowments. There is fortune at the bottom of pyramid but it depends on what kind of design existing for the people below poverty line. Thus, RSETI can be proved as a ray of hope for the rural youth, women and unemployed young population of rural and suburban area for being the first generation entrepreneurs.

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A Study on Consumer Durable Products with Special Reference to Tax Rate of GST in Aurangabad City

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Abstract

GST is a major tax reform in the country. It has changed the indirect tax structure of India. The rate of GST is determined by GST council. There are five GST rate prescribed by the GST council, 0%, 5%, 12%, 18% and 28%. This study highlights the consumers perception towards the rate of GST on consumer durable products(Home Appliances and Consumer electronics). The study is based on primary data. It is collected from the 200 consumer who are using home appliances and consumer electronics products with the help of structured questionnaire. Finally research study gives the opinion of the consumer with regard to GST rate on selected consumer durable products. The study also provides valuable suggestions to the consumer durable industry.

Introduction:

Goods and Services Tax (GST), a destination based tax, was introduced in India with effect from 1st of July, 2017 subsuming a large number of indirect taxes, cesses and duties levied by the Central and State Governments. Required amendments to the Constitution were made by The Constitution (One Hundred and First Amendment) Act 2017. The GST Council has been established thereafter. The GST Council consists of representatives of all the States and Union Territories with legislatures and its Chairman is the Finance Minister of India. GST Council deliberates on all aspects relating to GST and makes recommendations. In fact, without GST recommendations, changes in GST law cannot be made.

The Goods and Services Tax is based on two Parliamentary Acts – the IGST (Integrated Goods and Services Tax) Act and the CGST (Central Goods and Services Tax) Act which were passed in April 2017.

GST is a tax on supply of goods and/or services in terms of section 9 of the CGST Act, 2017 and section 5 of the IGST Act, 2017 and the liability to pay the tax arises at the time of supply as determined in terms of section 12 and 13 of the CGST Act. The tax has to be paid on the value of supply as determined in terms of section 15 of the CGST Act read with the Valuation rules. However, in case of import of goods, value shall be determined as per the provisions of Customs Act.

Supply is the taxable event under GST unlike manufacture in Excise, sale of goods in VAT/CST and provision of service in Service Tax.

The nature of supply under GST may be intra-state or inter-state/inter-territory as determined in terms of section 7, 8 or 9 of the IGST Act. If the nature of supply is intra-state, then CGST and SGST shall be payable and if nature of supply is inter-state, then IGST shall be payable. While inter-head set off of eligible input tax credit of IGST is allowed with CGST and SGST/UTGST and vice versa, set off of CGST and SGST/UTGST with each other is not allowed in terms of section 49(5) of CGST Act.

GST is one indirect tax for the whole nation, which will make India one unified common market. The GST intends to subsume most indirect taxes under a single taxation regime. GST is a single tax on the supply of goods and services, right from the manufacturer to the consumer. Credits of input taxes paid at each stage will be available in the subsequent stages of value addition, which makes GST essentially a tax only on value addition at each stage. The final consumer will thus bear only the GST charged by the last dealer in the supply chain, with set-off benefits at all the previous stages. This is expected to help broaden the tax base, increase tax compliance, and reduce economic distortions caused by inter-state variations in taxes.

Objectives of The Study

1. To study Customers' Perception towards Tax Rate of GST on Home Appliances and Consumer Electronics.
2. To Analyse the tax rates suggested by the customers on the products under study.
3. To suggest and recommend tax rate on Home Appliances and Consumer Electronics.

Research Methodology

The present study highlights on the on the customers' Perception towards Tax Rate Structure of GST on consumer durable products with reference to Home Appliances and Electronics Products in Aurangabad city. The research study is based on primary as well as secondary data. Primary data for the study is collected from 200 customers who use the consumer durable products selected for the research study. This data is randomly selected. The secondary data is collected through various magazines, newspapers, websites etc. for this study.

Types of Product Selected (Scope): I have selected only following two types of consumer durable products for the research study:

- Home Appliances:** Air Conditioner, Air Conditioner, Refrigerator, Washing Machine, Sewing Machine and cleaning equipments.
- Consumer Electronics:** Televisions up to 68 cm or 27", Fans, Audio, Video/ DVD Systems, Digital Cameras, LED Lights, Iron

Data Analysis and Interpretation

- Suggestion of the respondents' with regard to GST rate on Home Appliances**

Table1: Tax rate suggested by the respondents' on Home Appliances

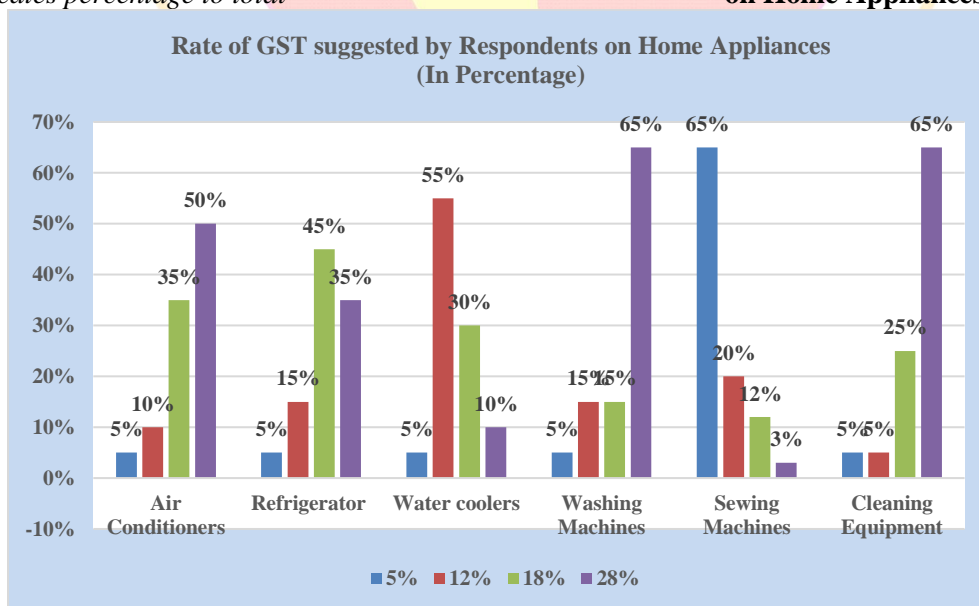
Name of the Products	Tax Rate Suggested GST (%)				Total
	5	12	18	28	
Home Appliances:					
Air Conditioners	10 (5)	20 (10)	70 (35)	100 (50)	200 (100)
Refrigerator	10 (5)	30 (15)	90 (45)	70 (35)	200 (100)
Water coolers	10 (5)	120 (55)	60 (30)	10 (10)	200 (100)
Washing Machines	10 (5)	30 (15)	30 (15)	130 (65)	200 (100)
Sewing Machines	130 (65)	40 (20)	24 (12)	06 (3)	200 (100)
Cleaning Equipment	10 (5)	10 (5)	50 (25)	130 (65)	200 (100)

Source: Primary Data

Brackets indicates percentage to total

Figures in

Graph1: Tax rate suggested by the respondents' on Home Appliances



Analysis and Interpretations:

The above table and graph depicts the rate of GST suggested or recommended by the

consumer on home appliances products which is categorised as one of the type of household products.

Regarding rate of GST suggested on Air Conditioner, out of total respondent 50 percent responded that the rate of GST should be 28%, followed by 35 percent said it should be 18%, 10 percent said it should be 12% and remaining 5 percent suggested that it should be 5 % GST rate on Air Conditioner.

The analysis shows that most of the responded recommended that the rate of GST on Air Conditioner should be 28 % as it comes under the category of luxurious or white goods.

With regard to rate of GST suggested on Refrigerator, out of total respondent 45 percent responded that the rate of GST should be 18%, followed by 35 percent said it should be 28%, 15 percent said it should be 12% and remaining 5 percent suggested that it should be 5 % GST rate on refrigerator.

Most of the consumers said that GST rate should be 18 percent on refrigerator. As far as the rate of GST suggested on Water cooler is concerned, out of total respondent 55 percent responded that the rate of GST should be 12%, followed by 30 percent said it should be 18%, 10 percent said it should be 28% and remaining 5 percent suggested that it should be 5 % GST rate on water coolers.

The analysis shows that most of the responded recommended that the rate of GST on water cooler should be 12 %.

Concerning the rate of GST suggested by the consumes on sewing machines, out of total respondent 65 percent responded that the rate of GST should be 5%, followed by 20 percent said it should be 12%, 12 percent said it should be 18%

and remaining 3 percent suggested that it should be 28 % on sewing machines.

It can be concluded from this analysis that majority of the responded recommended 5 % GST rate on sewing machine as it is generally used by poor section of the society.

Regarding rate of GST suggested on Washing Machines, out of total respondent 65 percent responded that the rate of GST should be 28%, followed by 20 percent said it should be 18%, 10 percent said it should be 12% and remaining 5 percent suggested that it should be 5 % GST rate on washing machines.

The analysis shows that most of the responded recommended that the rate of GST on washing machine should be 28 % as it comes under the category of luxurious or white goods.

In case of rate of GST recommended by the consumers on cleaning Equipment, out of total respondent 70 percent responded that the rate of GST should be 28%, followed by 20 percent said it should be 18%, 6 percent said it should be 12% and remaining 4 percent suggested that it should be 5 % GST rate on washing machines.

Most of the consumer recommended 28 % GST on cleaning equipment product as it is one of the category of white or luxurious goods.

• **Suggestion of the respondents' with regard to GST rate to be charged on Consumer Electronics:** The following table shows the suggestion or recommendations of therespondents' regarding tax rate to be charged on the Consumer Electronics.

Table2 : Tax Rate Suggested By The Respondents' On Consumer Electronics

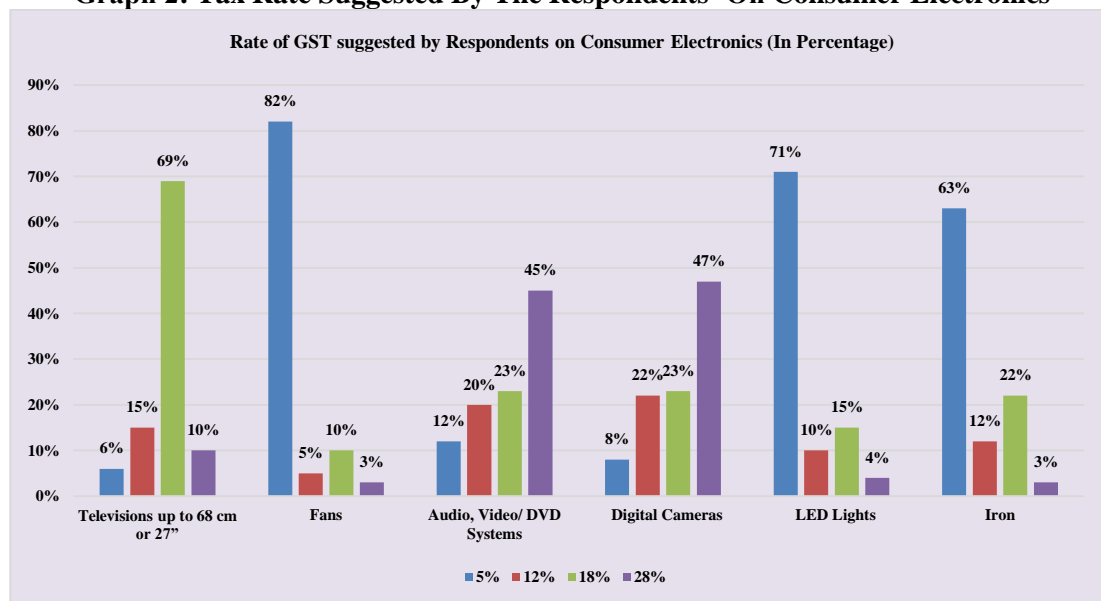
Name of the Products	Tax Rate Suggested GST (%)				Total
	5	12	18	28	
Consumer Electronics:					
Televisions up to 68 cm or 27"	12 (6)	30 (15)	138 (69)	20 (10)	200 (100)
Fans	164 (82)	10 (5)	20 (10)	06 (3)	200 (100)
Audio, Video/ DVD Systems	24 (12)	40 (20)	46 (23)	90 (45)	200 (100)
Digital Cameras	16 (8)	44 (22)	46 (23)	94 (47)	200 (100)
LED Lights	142 (71)	20 (10)	30 (15)	06 (4)	200 (100)
Iron	567 (63)	108 (12)	198 (22)	27 (3)	200 (100)

Source: Primary Data

Figures in

Brackets indicates percentage to total

Graph 2: Tax Rate Suggested By The Respondents' On Consumer Electronics



Analysis and Interpretations:

The above table and graph shows the rate of GST suggested or recommended by the consumer on Consumer Electronics products which is categorised as one of the type of household products.

Regarding rate of GST recommended by the consumers on Televisions up to 68 cm or 27'', out of total respondent 69 percent responded that the rate of GST should be 18%, followed by 15 percent said it should be 12%, 10 percent said it should be 28% and remaining 6 percent suggested that it should be 5 % GST rate on Televisions up to 68 cm or 27''. Most of the consumer recommended 18 % GST on Televisions up to 68 cm or 27''.

In case of rate of GST recommended by the consumers on fans, out of total respondent 82 percent responded that the rate of GST should be 5%, followed by 10 percent said it should be 18%, 5 percent said it should be 12% and remaining 3 percent recommended 28% GST rate on fans. Most of the consumers said that GST rate should be 5% on fans as it is also one of the product which is generally used in every household.

Concerning the rate of GST suggested by the consumers on Audio, Video/ DVD Systems, out of total respondent 45 percent responded that the rate of GST should be 28%, followed by 23 percent said it should be 18%, 20 percent said it should be 12% and remaining 12 percent suggested that it should be 5 % on Audio, Video/ DVD Systems. It can be concluded from this analysis that majority of the responded recommended 28 % GST rate on Audio, Video/ DVD Systems as it is generally used by higher income group.

With regard to rate of GST suggested on Digital Cameras, out of total respondent 47 percent responded that the rate of GST should be 28%, followed by 23 percent said it should be 18%, 22 percent said it should be 12% and remaining 8 percent suggested that it should be 5 % on Digital Cameras. It can be concluded from this analysis that majority of the responded recommended 28 % GST rate on Digital Cameras as it is generally used by higher income group.

As far as the rate of GST suggested on LED Lights is concerned, 4 percent respondent viewed that there should be 28 % GST, 15% viewed 18 % GST, 10 % respondent viewed 12 % and remaining and largest, i.e. 71 respondent said that there should be 5% GST on LED Lights as it is needed by every household. The above analysis shows that most of the responded recommended that the rate of GST on LED Lights should be 5 % as it comes under the category of essential products used in most of the households.

Regarding rate of GST suggested on Iron, out of total respondent 3 percent opinioned that the rate of GST should be 28%, followed by 22 percent said it should be 18%, 12 percent said it should be 12% and remaining 63 percent suggested that it should be 5 % GST rate on Iron. The analysis shows that most of the responded recommended 5 % GST rate on Iron.

FINDINGS, SUGGESTIONS OR RECOMMENDATIONS

Home Appliances

The research study found that out of all home appliances product, the rate of GST suggested by the respondents on Air Conditioners,

Washing Machines, cleaning equipment is 28 % as all these products comes under the category of luxurious Goods. It is also suggested that there should be 18% rate of GST on refrigerator. On water cooler and sewing machines, the rate of GST recommended by most of the consumers are 12% and 5% respectively as these products should beaffordable to poor people also.

Consumer Electronics

The research study found that as recommended by most of the responded, the rate of GST should be 28 % on Audio, Video/ DVD Systems and digital cameras. On products like Fans, LED lights and Iron, the recommended GST rate by the respondent is 5%. It is also suggested that rate of GST should be 18 % on Televisions up to 68 cm or 27".All these products come under the consumer electronic goods.I recommend and suggest to the government that they must take into

consideratiion the tax rate of GST suggested by the cusotmers while deciding the tax rate by the GST counsil on the home appliances and consumer electronic products.

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A Way to Become Vishwaguru

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Abstract:

Aatmanirbhar Bharat is a dream of self reliant India. India over the past two decades has made remarkable progress in reducing extreme poverty. Recent estimates suggest that extreme poverty increased due to the COVID-19 pandemic but later moderated as access to vaccines became widespread. India's aspiration to achieve high income status by 2047 will need to be realized through a growth process that delivers broad based gains to the bottom half of the population. Growth-oriented reforms will need to be accompanied by an expansion in good jobs that keeps pace with the number of labor market entrants. At the same time, gaps in economic participation will need to be addressed, including by bringing more women into the workforce. To make it real India needs a big motivation and support. Aatmanirbhar Bharat made a huge impact to make India world's fastest growing economy. Self reliance is the only way to prevent nation from heavy dependency on imports and manufacturing. It is the way through which MSME's can grow and stable in the market. This is a gateway of new India to become Vishwaguru at world stage.

Keywords: Infrastructure, MSME, Financial stimulus.

Introduction:

The word "Atma-nirbhar" can be translated as both self-reliance and self-sufficiency. AatmaNirbhar Bharat means Self reliant India. In simple words it means you are on your own. In the history, India saw a promotion of political self-reliance for swaraj (self-governance or self-rule) during the independence movement. Activists such as Mahatma Gandhi and Rabindranath Tagore explained self-reliance in terms of the nation and of the self. With the foundation of educational institutes such as Visva-Bharati University, Tagore had a role in bringing India closer to self-reliance in education. 1905, The swadeshi movement was one of the Indian sub-continent's most effective pre-independence movements.

Independent India's first major policy document, the Industrial Policy Resolution of 1948, echoed the "national consensus" regarding how India was to proceed. This national consensus called for a mixed economy and self-reliance. In the 1990s, Prime Minister P. V. Narasimha Rao redefined and adapted the meaning of self-reliance for the country compared with the Nehru era. In October 2005, Prime Minister Manmohan Singh said self-reliance is not simply a policy of autarky or isolating the country; worldwide relationships, interdependence and negotiating power are

associated features. Private companies and their products such as the Maruti 800 car, Thums Up beverage, Amul, HDFC, and pharmaceutical companies Bharat Biotech and Serum Institute of India, have been considered examples of self-reliance in India.

Prime Minister Modi used the phrase "self-reliance" first in June 2014 in relation to defence manufacturing. He reiterated this over the years; later he connected self-reliance to Digital India, making the poor self-reliant, technologies etc. On 12 May 2020, Prime Minister Modi publicly used the Hindi phrase for the first time when he said; "the state of the world today teaches us that (Atma Nirbhar Bharat) 'Self-reliant India' is the only path. It is said in our scriptures". In 2022, Union Home Minister Amit Shah acknowledged slogans such as "aatmanirbharta", "Make in India" and "vocal for local" were adapted from Gandhi's efforts towards swadeshi. Pre-independence aspirations that had been forgotten are now being revived and adapted, and are being put into practice.

OBJECTIVES:

1. To study the concept of Aatmanirbhar Bharat.
2. To study the objectives and impact of Aatmanirbhar Bharat.
3. Criticism and scope of Aatmanirbhar Bharat

Research Methodology:

The study is based on secondary sources of data/information. Different blogs, journals, newspapers and relevant websites have been consulted in order to make the study an effective one.

Concept of Aatmanirbhar Bharat:

The Indian Prime Minister Narendra Modi launched the AatmaNirbhar Bharat Abhiyan on 13th May 2020. It came as an economic package of Rs. 20 lakh crores which is 10% of GDP to support India to kick start the Aatmanirbhar Bharat Abhiyaan with various schemes and credit lines.

Aatmanirbhar that emerged included a willingness to associate with and challenge the global economy, *unlike past decades where there had been a wish to disassociate*, such as during the pre-independence swadeshi movement and with post-independence foreign aid. However, has been adapted with slogans such as "vocal for local" while at the same time, global interconnectedness is being promoted. The government aims to reconcile this; according to Economist Intelligence Unit; "Modi's policy aims to reduce domestic market access to imports, but at the same time open the economy and export to the rest of the world".

self-reliance policy does not aim to be protectionist, exclusionist or isolationist. For India, self-reliance means being a larger and more important part of the world economy. The concept requires policies that are efficient and resilient, and encourage equity and competitiveness. It means being self-sustaining and self-generating; and creating "wealth and values not only for ourselves but for the larger humanity".

In March 2021, Finance Minister Nirmala Sitharaman said the Aatmanirbhar Bharat campaign is not about bringing back socialism or import substitution, rather the intent is to boost manufacturing. The Indian PM Narendra Modi, thus, launched the Aatmanirbhar Bharat scheme following this crisis, trying to make India more self-reliant to recover from it. AatmaNirbhar Bharat will help to make India self-reliant by creating an eco-system that will allow Indian companies to be highly competitive on the global stage. It is not protectionism, It is not inward looking. It is not just import substitution and it is not economic nationalism. The COVID crisis has

shown the failings of multilateral and regional institutions and also the ineffectiveness of trade barriers and standalone economic models. Indian entrepreneurship must be freed from the shackles by adopting suitable governance models and reforming laws. The "new Swadeshi" must transform local industries to connect the ever-changing global trade structure and lead to "globalization" that serves local and global markets.

Five Pillars of Aatmanirbhar Bharat Abhiyan:

During his address to the nation, Prime Minister Narendra Modi focussed on five pillars to make India self-reliant. The Prime Minister said the pillars are the economy, infrastructure, technology-driven system, vibrant demography and demand.

1. **First Pillar: Economy:** PM Modi said government's try is towards building an economy that brings quantum jump rather than incremental change.
2. **Second Pillar: Infrastructure:** Modi said infrastructure should be world-class which the identity of modern India becomes.
3. **Third Pillar: Technology-driven system:** focussed on a technology-driven system which can fulfil the dreams of the 21st century; a system not based on the policy of the past century.
4. **Fourth Pillar: Demography:** termed India's vibrant demography as the country's strength. He said it is the source of energy for a self-reliant India.
5. **Fifth Pillar: Demand:** PM Narendra Modi said the cycle of demand and supply chain in the country economy, is the strength which needs to be harnessed to its full potential. He said, "In order to increase demand in the country and to meet this demand, every stake-holder in our supply chain needs to be empowered. We will strengthen our supply chain, our supply system built up with the smell of the soil and the sweat of our labourers."

Objectives of Aatmanirbhar Bharat:

- Develop India into a global supply chain hub.
- Strengthen the local manufacturers and

service providers to enhance a sense of self-reliance of the nation.

- Enter the global markets to export goods including agriculture, textiles, clothing and jewellery.
- Determine adequacy of each sector (e.g., defence, agriculture, healthcare, infrastructure, etc.), with the help of FY22 budget, to achieve self-reliance.
- Issue economic packages equivalent to 10% of the Indian GDP
- Special incentives and funds for small businesses and farmers who faced losses from COVID-19.
- Aatmanirbhar Bharat is not only for production of everything inside country but also exporting it to other nations.
- It's a big backup for MAKE IN INDIA, Vocal for the Local.
- Emphasis on self-reliance with a focus on land, labour, liquidity, and laws.
- Improve the standard of living by focusing on the trade deficit and the exchequer balance.
- Revive every area of the economy with a rise in fiscal motivation.

Overall Stimules That Provided In Aatmanirbhar Package:

1. Sanction of Rs 3 lakh crore for unsecured loans to MSMEs with an annual turnover of ₹100 crores
2. Investment of Rs. 90,000 crores bailout to discoms and independent power producers
3. Fiscal assistance for improving cold chains, warehousing, post-harvest management and dairy infrastructure
4. NABARD will allow a financing facility for funding agriculture infrastructure projects
5. Pradhan Mantri Matsya Sampada Yojana for the improving marine and inland fisheries
6. Investment of Rs. 30,000 for particular liquidity scheme for debt papers of NBFCs, HFCs, and MFIs
7. Rs 2 lakh crore Concessional credit boost to 2.5 crore farmers through Kisan Credit Cards in a Special Drive
8. Extension in payment of Income Tax and

GST for businesses

9. Other Investments for improving five pillars, including economy, infrastructure, systems, demography and demand
10. Reduction in TDS and TCS rates
11. Ease of doing business for corporate. Etc.

Criticism of Aatmanirbhar Bharat Abhiyan Inflated figures

- Several opposition leaders pointed out that as per the calculations by many economists; the actual government expenditure in the Aatmanirbhar package is just 1%.
- The actions of RBI were included as part of the government's fiscal package whereas government expenditure and RBI's actions cannot be clubbed together.

Need to spend more

- The Indian economy is likely to contract and the Gross Value Added across sectors is likely to fall. According to an assessment by Prof N R Bhanumurthy of the National Institute of Public Finance and Policy (NIPFP), India's GVA will contract by 13% this year under the Base case scenario (The Base case scenario refers to a scenario where governments bring down their expenditure in line with their falling revenues to maintain their fiscal deficit target).
- Several economists suggest that the government needs to spend much more to prevent an economic contraction.

Credit easing will not work immediately

- Direct expenditure by a government such as direct benefit transfer or by construction will mean that money reaches the people.
- But credit easing by the RBI is not direct government expenditure and banks will be hesitant to lend the money available with them.

Nothing to stimulate demand –

- Many economists have opined that the government stimulus tries to resolve only supply-side issues. There is nothing to generate demand. This could only be done by putting money in the hands of people.

Modest MSME package

- According to opposition leaders, the MSME package was modest and the measures were skewed in favor of the larger ones. Moreover, the unorganized sector was not catered to.

Insufficient support for the state governments

- The state governments which are at the forefront of fighting the pandemic have not been supported adequately via fund transfers.

A remodeling of Make in India Campaign

- The self-reliant India campaign is criticized by many as a remodeling of the Make in India Campaign which didn't produce expected results with some add-on.

FINDINGS:

The Aatmanirbhar Bharat initiative aims to achieve several outcomes, including:

1. **Boosting Domestic Manufacturing:** The initiative aims to promote domestic manufacturing and reduce India's dependence on imports, particularly in critical sectors such as defense, healthcare, and technology.
2. **Creating Employment Opportunities:** By promoting domestic manufacturing and entrepreneurship, the initiative aims to create job opportunities and boost economic growth.
3. **Encouraging Innovation:** The Aatmanirbhar Bharat initiative aims to encourage innovation and entrepreneurship, particularly in the technology sector, to make India self-reliant in areas such as artificial intelligence, robotics, and electric vehicles.
4. **Promoting Sustainable Development:** The initiative aims to promote sustainable development by encouraging the use of locally produced goods, reducing waste, and promoting clean energy.
5. **Strengthening India's Position in the Global Economy:** By promoting self-reliance and reducing dependence on imports, the Aatmanirbhar Bharat initiative aims to strengthen India's position in the global economy and promote trade with other countries on more equal terms.

Overall, the outcome of the Aatmanirbhar Bharat initiative is to create a self-sufficient and self-reliant India, which can sustain its

economic growth and development while reducing its dependence on imports.

CONCLUSION:

These issues have no easy solutions. Reducing power cost would mean forcing State governments to give up cross-subsiding power. It will also call for investment to evacuate coal from the mines quickly and economically.

Skilling and re-skilling needs a renewed focus. There is a need to identify emerging skill sets and train people. Labour reforms have to be pushed forward to improve productivity. The government should encourage and incentivise outsourcing to reduce logistics costs. Companies that outsource more than just transportation are seeing good results thanks to better visibility and better utilization of assets. It must also invest in infrastructure. Turnaround time at Indian ports need to be reduced sharply from 2.62 days. It is less than a day in China.

To reduce interest costs, governments (both Centre and States) have to live within their means and more importantly, eschew populism. It should also ensure that strong companies have unfettered access to cheap funds across the globe. It must adopt a policy of „give & take“ to sign trade deals and not get bogged down by domestic lobbies. Without tackling these issues, India will not be competitive in the global stage.

In other words, Aatmanirbhar Bharat Abhiyan promises to provide benefits to everyone from every sector. It aims to be self-resilient to face the competition with the global supply chain. But Aatmanirbharta will remain a pipe dream. If the government is serious in implementing this economic philosophy, it should clearly list out areas which need improvement to make Indian manufacturing competitive. It should also go a step further and announce the quantum of improvement and the time line to achieve it. Only then will required policies get framed and executed to bring about the change. Also, such a statement will clear all confusion in the minds of trade partners, investors and others who have been finding it difficult to understand the policy.

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A Study on Blockchain Technology

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Abstract

Blockchain technology is an advanced database mechanism that allows transparent information sharing within a business network. A blockchain database stores data in blocks that are linked together in a chain. The data is chronologically consistent because you cannot delete or modify the chain without consensus from the network. As a result, you can use blockchain technology to create an unalterable or immutable ledger for tracking orders, payments, accounts, and other transactions. The system has built-in mechanisms that prevent unauthorized transaction entries and create consistency in the shared view of these transactions.

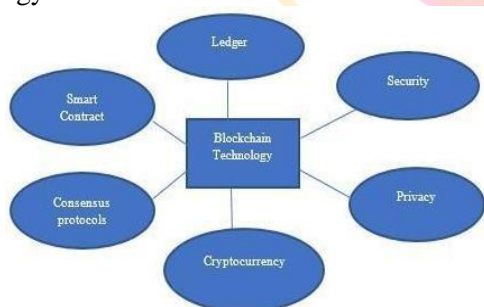
Blockchain is a one of emerging technology for decentralized and sharing of transactional data across a large peer to peer network, where non-trusting members can interact with each other without an intermediary, in a verifiable manner. In this paper, we review the basics of Blockchain, its applications, types, and working of Blockchain. Behind this innovative technique, the security, privacy issues and Consensus mechanisms of this technology are also important and are a matter of concern. The problems associated with Blockchain technology are also discussed in this paper.

Introduction

All traditional transactions depend on the centralized trusted party, which gives many problems of transaction cost, efficiency, and security. To solve these problems and to achieve secure, faster and transparent transactions we need to introduce the concept of Blockchain technology.

Blockchain technology, which was introduced by Satoshi Nakamoto. Bitcoin defines as one of the applications of Blockchain Technology in the financial field. The blockchain is nothing but a distributed ledger technology. It will process the transactions between the individuals and organizations without the need for third party involvement.

Fig.1: General Architecture of Blockchain Technology.



The above figure shows the Architecture of the Blockchain Technology.

Blockchain as a Service (BaaS) is a managed blockchain service that a third party provides in the cloud. You can develop blockchain applications and digital services while the cloud providers supply the infrastructure and blockchain building tools.

AWS Blockchain services provide purpose-built tools to support your requirement. You can use them

to build everything from a centralized ledger database that maintains an immutable record of transactions to a multi-party, fully managed blockchain network that helps eliminate intermediaries

EVALUATION OF blockchain TECHNOLOGY

Blockchain technology has its roots in the late 1970s when a computer scientist named Ralph Merkle patented Hash trees or Merkle trees. The technology has continued to evolve over these three generations:

First generation – Bitcoin and other virtual currencies

In 2008, an anonymous individual or group of individuals known only by the name **Satoshi Nakamoto** outlined blockchain technology in its modern form. Many of the features of Bitcoin blockchain systems remain central to blockchain technology even today.

Second generation – smart contracts

A few years after first-generation currencies emerged, developers began to consider blockchain applications beyond cryptocurrency. For instance, the inventors of Ethereum decided to use blockchain technology in asset transfer transactions. Their significant contribution was the smart contracts feature.

Third generation – the future

As companies discover and implement new applications, blockchain technology continues to evolve and grow.

THE ELEMENTS of Blockchain TECHNOLOGY ARE:

- Ledger:** Blockchain is a distributed ledger technology, means the copy of the record is same who are participating in the network. There is neither central authority nor a trusted third party in the Blockchain

- [2] **Consensus Protocols:** Transaction should be verified by all parties in a network. Creating a block and adding to its ledger is also a decentralized process.
- [3] **Security:** Blockchain uses the techniques of digital signatures and public key cryptography in order to verify the identity of the transactions in the network.
- [4] **Cryptocurrency (or crypto currency):** It is designed as a digital asset works as an exchange of medium for providing secure transactions using cryptography.
- [5] **Privacy:** All types of data can be stored in the blockchain. The privacy rules are applicable if sensitive data is processing-e.g. health data or citizen service
- [6] **Smart contract:** These contracts are acts as agreements with a facility of self-execute and self-enforced. These contracts take the data from external source, so that data should not tamper with that cryptographic proof must be attached.

USES of Blockchain:-

Blockchain is an emerging technology that is being adopted in innovative manner by various industries. We describe some use cases in different industries in the following subsections:

Energy

Energy companies use blockchain technology to create peer-to-peer energy trading platforms and streamline access to renewable energy

Finance

Traditional financial systems, like banks and stock exchanges, use blockchain services to manage online payments, accounts, and market trading.

Media and entertainment

Companies in media and entertainment use blockchain systems to manage copyright data. Copyright verification is critical for the fair compensation of artists

Retail

Retail companies use blockchain to track the movement of goods between suppliers and buyers.

FEATURES of Blockchain TECHNOLOGY

Blockchain technology has the following main features:

Decentralization

Decentralization in blockchain refers to transferring control and decision making from a centralized entity (individual, organization, or group) to a distributed network.

Immutability

Immutability means something cannot be changed or altered. No participant can tamper with a transaction once someone has recorded it to the shared ledger.

Consensus

A blockchain system establishes rules about participant consent for recording transactions. You can record new transactions only when the majority of participants in the network give their consent.

COMPONENTS of Blockchain TECHNOLOGY

Blockchain architecture has the following main components:

A distributed ledger

A distributed ledger is the shared database in the block chain network that stores the transactions, such as a shared file that everyone in the team can edit. In most shared text editors, anyone with editing rights can delete the entire file. However, distributed ledger technologies have strict rules about who can edit and how to edit. You cannot delete entries once they have been recorded.

Smart contracts Companies use smart contracts to self-manage business contracts without the need for an assisting third party.

Public key cryptography

Public key cryptography is a security feature to uniquely identify participants in the blockchain network. This mechanism generates two sets of keys for network members. One key is a public key that is common to everyone in the network. The other is a private key that is unique to every member. The private and public keys work together to unlock the data in the ledger.

WORKING of Blockchain

While underlying blockchain mechanisms are complex, we give a brief overview in the following steps. Blockchain software can automate most of these steps:

Step 1 – Record the transaction

A blockchain transaction shows the movement of physical or digital assets from one party to another in the blockchain network. It is recorded as a data block and can include details like these:

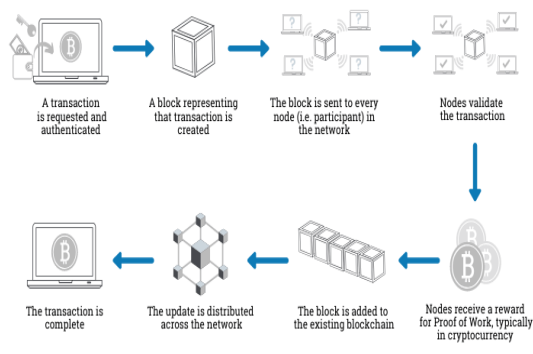
- ☐ Who was involved in the transaction?
- ☐ What happened during the transaction?
- ☐ When did the transaction occur?
- ☐ Where did the transaction occur?
- ☐ Why did the transaction occur?
- ☐ How much of the asset was exchanged?
- ☐ How many pre-conditions were met during the transaction?

Step 2 – Gain consensus

Most participants on the distributed blockchain network must agree that the recorded transaction is valid. Depending on the type of network, rules of agreement can vary but are typically established at the start of the network.

Step 3 – Link the blocks

Once the participants have reached a consensus, transactions on the blockchain are written into blocks equivalent to the pages of a ledger book. Along with the transactions, a cryptographic hash is also appended to the new block. The hash acts as a chain that links the blocks together. If the contents of the block are intentionally or unintentionally modified, the hash value changes, providing a way to detect data tampering. Thus, the blocks and chains link securely, and you cannot edit them. Each additional block strengthens the verification of the previous block and therefore the entire blockchain.



Working of Blockchain

Step 4 – Share the ledger

The system distributes the latest copy of the central ledger to all participants.

TYPES OF blockchain NETWORKS:

There are four main types of decentralized or distributed networks in the blockchain:

1. Public blockchain networks

Public blockchains are permissionless and allow everyone to join them. All members of the blockchain have equal rights to read, edit, and validate the blockchain. People primarily use public blockchains to exchange and mine cryptocurrencies like Bitcoin, Ethereum, and Litecoin.

2. Private blockchain networks

A single organization controls private blockchains, also called managed blockchains. The authority determines who can be a member and what rights they have in the network. Private blockchains are only partially decentralized because they have access restrictions.

3. Hybrid blockchain networks

Hybrid blockchains combine elements from both private and public networks. Companies can

set up private, permission-based systems alongside a public system. In this way, they control access to specific data stored in the blockchain while keeping the rest of the data public. They use smart contracts to allow public members to check if private transactions have been completed.

4 Consortium blockchain networks

A group of organizations governs consortium blockchain networks. Preselected organizations share the responsibility of maintaining the blockchain and determining data access rights. Industries in which many organizations have common goals and benefit from shared responsibility often prefer consortium blockchain networks.

Blockchain PROTOCOLS

The term blockchain protocol refers to different types of blockchain platforms that are available for application development. Each blockchain protocol adapts the basic blockchain principles to suit specific industries or applications. Some examples of blockchain protocols are provided in the following subsections:

Hyperledger fabric

Hyperledger Fabric is an open-source project with a suite of tools and libraries. Enterprises can use it to build private blockchain applications quickly and effectively. It is a modular, general-purpose framework that offers unique identity management and access control features. These features make it suitable for various applications, such as track-and-trace of supply chains, trade finance, loyalty and rewards, and clearing settlement of financial assets.

Ethereum

Ethereum is a decentralized open-source blockchain platform that people can use to build public blockchain applications. Ethereum Enterprise is designed for business use cases.

Corda

Corda is an open-source blockchain project designed for business. With Corda, you can build interoperable blockchain networks that transact in strict privacy..

Quorum

Quorum is an open-source blockchain protocol that is derived from Ethereum. It is specially designed for use in a private blockchain network, where only a single member owns all the nodes, or in a consortium blockchain network.

BENEFITS OF Blockchain TECHNOLOGY

Blockchain technology brings many benefits to asset transaction management. We list a few of them in the following subsections:

Advanced security

Blockchain systems provide the high level of security and trust that modern digital transactions require. There is always a fear that someone will manipulate underlying software to generate fake money for themselves. But blockchain uses the three principles of cryptography, decentralization, and consensus to create a highly secure underlying software system that is nearly impossible to tamper with. There is no single point of failure, and a single user cannot change the transaction records.

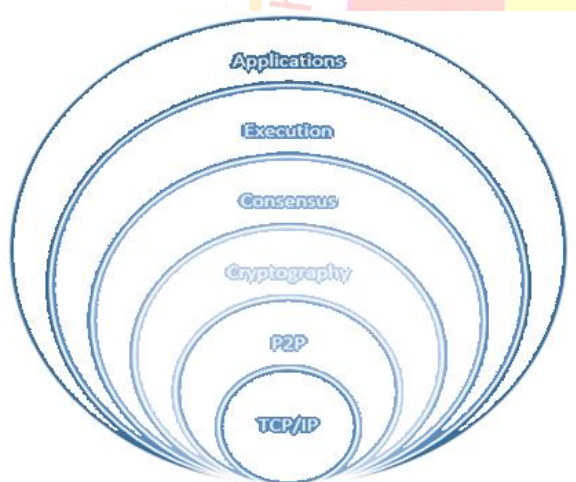
Improved efficiency

Business-to-business transactions can take a lot of time and create operational bottlenecks, especially when compliance and third-party regulatory bodies are involved. Transparency and smart contracts in blockchain make such business transactions faster and more efficient.

Faster auditing

Enterprises must be able to securely generate, exchange, archive, and reconstruct e-transactions in an auditable manner. Blockchain records are chronologically immutable, which means that all records are always ordered by time. This data transparency makes audit processing much faster.

Six Layers of Blockchain Technology



The Blockchain technology is built upon 6 main layers that are:

1. The TCP/IP network
2. Peer-to-Peer protocols
3. Consensus algorithms
4. Cryptography algorithms
5. Execution (Data blocs, Transactions, ...)
6. Applications (Dapps, smart contracts ...)

The actual TCP/IP network

The first layer in the Blockchain is the TCP/IP protocol in simple words, the internet we all know, and the way it simply works with all its protocols. Without the internet, the concept of

distributed apps or even the Blockchain will never exist.

Peer-to-Peer protocols

On top of the internet layer, we the Peer-to-peer protocols also known as P2P. The P2P protocol was developed to give end-users the ability to communicate with each other without the need for a central server.

The P2P protocols can be divided into two main types:

Structured P2P

In structured peer-to-peer systems, network connections are fixed, and peers keep track of the resources (e.g., shared material) that their neighbor peers have.

Unstructured P2P

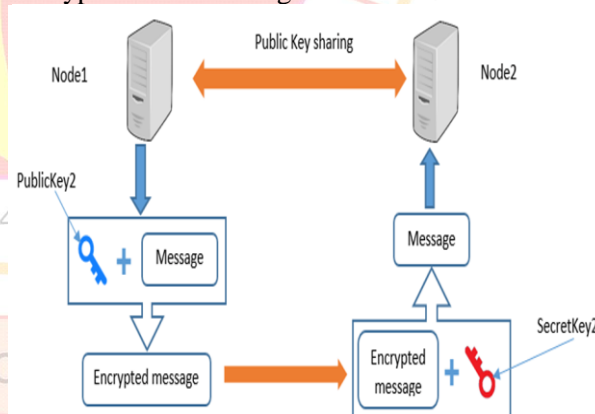
The unstructured P2P is the type used in Blockchain technology as the links are randomly established and all the data is stored in each node contrarily to the

Cryptography algorithms

I think what made all this concept available is the advancement in cryptography algorithms. The Blockchain technology was built on multiple cryptography algorithms and the most popular ones are:

Public/Private key encryption

When this field has started to first show up in the community of mathematicians, the only type of encryption that was known, was the symmetric encryption. This concept is based on having one shared key between two people to encrypt and decrypt the sent message.



Hash function

Hash functions are another essential cryptography concept in the Bitcoin processes. Hash functions are algorithms that can transform a large data into a small unique portion with a specific number of bytes. Those functions are used precisely in checking the integrity of the sent information. Moreover, the hashing algorithms represent the key concept in the PoW mechanism used by Bitcoin.

Here is a list of the most popular hash functions:

- MD5
- SHA256
- SHA-512

Digital signature

The digital signature concept is also a key element in Bitcoin technology and it is used in signing transactions sent by users.

Consensus algorithms

Consensus algorithms are the result of a famous problem discussed and researched for a long time ago called the Byzantine generals problem. This problem was first introduced by M. Pease, R. Shostak, and L. Lamport.

The Byzantine general's problem is defined as multiple generals trying to attack a city at the same moment to win the war. The problem is that they need to agree on the timing even if one of them is not loyal.

Consensus algorithms can be divided into two main categories:

Proof-based consensus mechanisms

This setup necessitates nodes competing in a leader-election lottery, with the winner proposing the ultimate value. To earn the privilege to propose the next block, the method requires proof of some effort as well as the ownership of some authority or tokens.

Traditional fault tolerance-based

This form of consensus method is based on a basic strategy of nodes publishing and verifying signed messages in stages. After a given number of messages have been received across a particular number of rounds (phases), an agreement is established.

Here is a list of some of the most popular consensus algorithms:

- Proof of Work (PoW)
- Proof of Stake (PoS)
- Proof of Deposit (PoD)
- Proof of Importance (PoI)

Future Scope of Blockchain Technology

The paradigm move to cryptocurrency has swept the world of finance and changed the way the world looks at money. With the onset of Bitcoin, blockchain technology has risen to new popularity and significance. Blockchain is an irreversible, impenetrable digital database that permanently and verifiably records transactions.

Understanding Blockchain:

Before we delve into the **scope of blockchain technology**, let us have a broad overview of **blockchain and its characteristics**. Blockchain, which is a digital ledger, allows for duplication and sharing over the entire network of

connected computer systems. Every member of the Blockchain has access to the history of every transaction or modification made there.

Dissecting the Scope of Blockchain and Its Application in Various Industries:

The future of blockchain technology and its applications have enticed numerous organizations cutting across varied domains and fields. With the prospect of being accepted globally owing to its disruptive characteristics, blockchain technology has been included in numerous studies.

Finance Industry and the Future of Blockchain Technology

Blockchain technology has been successful in delivering its promise and demonstrated consistency regarding its objective of tracking financial assets. After seeing the potential and positive effects of this technology, several financial institutions made investments in it. Blockchain is able to address the flow and **deals of black money flow** because of its transparent ledger architecture.

Cybersecurity and the Future of Blockchain Technology

For apparent reasons, **the future of blockchain technology** is mostly in the area of cybersecurity. The data remains secure and verifiable despite the open and distributed nature of the Blockchain ledger.

Cloud Storage and the Future of Blockchain Technology

Data loss, hacking, and human mistake are all serious risks associated with centralized systems. **Blockchain technology** can be used to improve cloud storage security and hacker resistance.

Networking, IoT, and the Future of Blockchain Technology

Blockchain technology is being adopted by businesses like IBM and Samsung to create a distributed network of IoT devices. The ADEPT concept attempts to eliminate the central site for the control of communication between devices for tasks like software updates, error handling, keeping track of energy usage, etc.

Digital Advertising and the Future of Blockchain Technology

Business entrepreneurs are often plagued by the complexities of stiff competition. Owing to bad players publishers and promoters struggle with digital marketing, ineffective payment structures, domain fraud, etc..

Supply Chain Administration and the Future of Blockchain Technology

At each stage of the supply chain, the **usage of blockchain technology** can monitor employment, expenses, and releases while minimizing time delays and human errors. Blockchain can also guarantee the legality of products and the fair trade status of those products through traceability. Blockchain has the potential to stop revenue losses from illegal or grey market goods as well as reputational harm.

Governments' Use of National Digital Currencies

The year 2017 witnessed a massive increase in the value of Bitcoin which is relatively higher in comparison to other services and forms of money. Cryptocurrency has come to attain a significant position in the market as among the most valuable assets. Even with the fixed cap of 21 million units, the demand for Bitcoin will once again increase. Governments across the globe are likely to develop their own digital currencies and take part in an open market as a result.

Government Organizations and the Future of Blockchain Technology

The idea of blockchain can also aid in the management of enormous amounts of data, which can be highly beneficial for government organizations. The adoption of Blockchain will result in an efficient data management system with the potential to enhance how these entities operate.

Future Blockchain Experts will be in High Demand

Blockchain engineers and specialists are in short supply on the job market, despite the technology being at the height of its popularity. Investing in Blockchain technology now will benefit you in the long run.

Conclusions

Blockchains gives robust, distributed peer to peer systems and ability to interact with peers in a trustless and auditable manner. The government should provide consistent laws for this technology, and enterprise gets ready to hold blockchain technologies. Consensus mechanism is the core technology of Blockchain. In Future work, concentrate on algorithms based on consensus mechanisms of Blockchain technology for different scenarios.

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Virtualization in Cloud Computing

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Latur.

Abstract:

Virtualization makes it possible to create a virtual representation of anything, which may include computer resources, a virtual computer hardware platform, or storage devices. Cloud computing technology is one of the biggest milestones in leading us to next generation technology and booming up business and IT field. It helps to overcome the problems of data loss, accessing data whenever needed and data security. This technology is mainly service oriented and focuses on cost reduction, hardware reduction and pay just for service concept. Virtualization in cloud computing is making a virtual image of the storage devices servers or network resources so that they can be used on multiple machines at the same time. There are four main types of cloud computing: private clouds, public clouds, hybrid clouds, and multiclouds. There are also three main types of cloud computing services: Infrastructure-as-a-Service (IaaS), Platforms-as-a-Service (PaaS), and Software-as-a-Service (SaaS). Cloud storage is the abstraction, pooling, and sharing of storage resources through the internet. Cloud storage is facilitated by IT environments known as clouds, which enable cloud computing.

Introduction:

Virtualization uses software to create an abstraction layer over computer hardware that allows the hardware elements of a single computer processors, memory, storage and more to be divided into multiple virtual computers, commonly called virtual machines (VMs).

Virtualization is the "creation of a virtual (rather than actual) version of something, such as a server, a desktop, a storage device, an operating system or network resources". In other words, Virtualization is a technique, which allows to share a single physical instance of a resource or an application among multiple customers and organizations. It does by assigning a logical name to a physical storage and providing a pointer to that physical resource when demanded.

The goal of virtualization is usually one of the following: higher levels of performance, scalability, reliability/availability, agility, or to create a unified security and management domain. This virtual view is constructed using excess processing power, memory, storage, or network bandwidth.

The benefits of server virtualizations are more efficient utilization of physical servers. More efficient utilization of power. Virtual machine creation: create virtual machine to customer's specifications for memory, CPU reservation, and disk space and supported OS.

Virtualization is technology that you can use to create virtual representations of servers, storage, networks, and other physical machines. Virtual software mimics the functions of physical hardware to run multiple virtual machines simultaneously on a single physical machine. Businesses use virtualization to use their hardware resources efficiently and get greater returns from

their investment. It also powers cloud computing services that help organizations manage infrastructure more efficiently.

Virtualization example

Consider a company that needs servers for three functions: to store business email securely

1. Run a customer-facing application
2. Run internal business applications

Types of Virtualization:

1. Hardware Virtualization.
2. Operating system Virtualization.
3. Server Virtualization.
4. Storage Virtualization.

1) Hardware Virtualization:

When the virtual machine software or virtual machine manager (VMM) is directly installed on the hardware system is known as hardware virtualization. The main job of hypervisor is to control and monitoring the processor, memory and other hardware resources. After virtualization of hardware system we can install different operating system on it and run different applications on those OS.

Usage:

Hardware virtualization is mainly done for the server platforms, because controlling virtual machines is much easier than controlling a physical server.

2) Operating System Virtualization:

When the virtual machine software or virtual machine manager (VMM) is installed on the Host operating system instead of directly on the hardware system is known as operating system virtualization. Operating System Virtualization is mainly used for testing the applications on different platforms of OS.

3) Server Virtualization:

When the virtual machine software or virtual machine manager (VMM) is directly installed on the Server system is known as server virtualization. Server virtualization is done because a single physical server can be divided into multiple servers on the demand basis and for balancing the load.

4) Storage Virtualization:

Storage virtualization is the process of grouping the physical storage from multiple network storage devices so that it looks like a single storage device. Storage virtualization is also implemented by using software applications. Storage virtualization is mainly done for back-up and recovery purposes.

Virtualization Work in Cloud Computing:

Virtualization is the "creation of a virtual (rather than actual) version of something, such as a server, a desktop, a storage device, an operating system or network resources".

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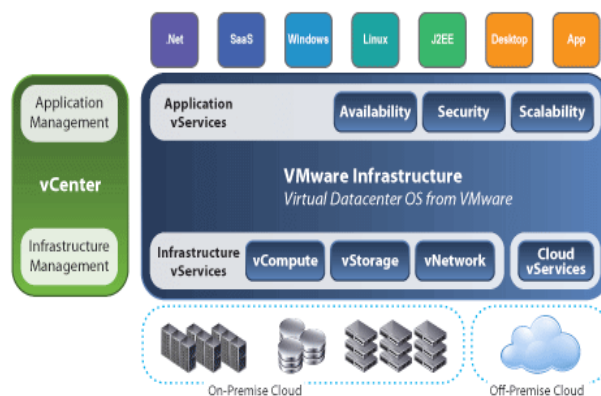
Virtual machines in the cloud that do the computation for SaaS applications as well as delivering them to users. If the cloud provider has a geographically distributed network edge, then the application will run closer to the user, resulting in faster performance.

Creation of a virtual machine over existing operating system and hardware is known as Hardware Virtualization. A Virtual machine provides an environment that is logically separated from the underlying hardware.

The machine on which the virtual machine is going to create is known as **Host Machine** and that virtual machine is referred as a **Guest Machine**

The main usage of Virtualization Technology is to provide the applications with the standard versions to their cloud users, suppose if the next version of that application is released, then cloud provider has to provide the latest version to their cloud users and practically it is possible because it is more expensive.

To overcome this problem we use basically virtualization technology, By using virtualization, all servers and the software application which are required by other cloud providers are maintained by the third party people, and the cloud providers has to pay the money on monthly or annual basis.



By using virtualization, you can interact with any hardware resource with greater flexibility. Physical servers consume electricity, take up storage space, and need maintenance. You are often limited by physical proximity and network design if you want to access them. Virtualization removes all these limitations by abstracting physical hardware functionality into software. You can manage, maintain, and use your hardware infrastructure like an application on the web.

Virtualization example

Consider a company that needs servers for three functions:

1. Store business email securely
2. Run a customer-facing application
3. Run internal business applications

Each of these functions has different configuration requirements:

- The email application requires more storage capacity and a Windows operating system.
- The customer-facing application requires a Linux operating system and high processing power to handle large volumes of website traffic.
- The internal business application requires iOS and more internal memory (RAM).

To meet these requirements, the company sets up three different dedicated physical servers for each application. The company must make a high initial investment and perform ongoing maintenance and upgrades for one machine at a time. The company also cannot optimize its computing capacity. It pays 100% of the servers' maintenance costs but uses only a fraction of their storage and processing capacities.

Efficient hardware use

With virtualization, the company creates three digital servers, or virtual machines, on a single physical server. It specifies the operating system requirements for the virtual machines and can use them like the physical servers. However, the company now has less hardware and fewer related expenses.

Infrastructure as a service

The company can go one step further and use a cloud instance or virtual machine from a cloud computing provider such as AWS. AWS manages all the underlying hardware, and the company can request server resources with varying configurations. All the applications run on these virtual servers without the users noticing any difference. Server management also becomes easier for the company's IT team.

To properly understand Kernel-based Virtual Machine (KVM), you first need to understand some basic concepts in *virtualization*. Virtualization is a process that allows a computer to share its hardware resources with multiple digitally separated environments. Each virtualized environment runs within its allocated resources, such as memory, processing power, and storage. With virtualization, organizations can switch between different operating systems on the same server without rebooting. Virtual machines and hypervisors are two important concepts in virtualization.

Virtual machine

A *virtual machine* is a software-defined computer that runs on a physical computer with a separate operating system and computing resources. The physical computer is called the *host machine* and virtual machines are *guest machines*. Multiple virtual machines can run on a single physical machine. Virtual machines are abstracted from the computer hardware by a hypervisor.

Hypervisor

The *hypervisor* is a software component that manages multiple virtual machines in a computer. It ensures that each virtual machine gets the allocated resources and does not interfere with the operation of other virtual machines. There are two types of hypervisors.

Type 1 hypervisor

A type 1 hypervisor, or bare-metal hypervisor, is a hypervisor program installed directly on the computer's hardware instead of the operating system. Therefore, type 1 hypervisors have better performance and are commonly used by enterprise applications. KVM uses the type 1 hypervisor to host multiple virtual machines on the Linux operating system.

Type 2 hypervisor

Also known as a hosted hypervisor, the type 2 hypervisor is installed on an operating system. Type 2 hypervisors are suitable for end-user computing.

Virtualization provides several benefits to any organization:

Efficient resource use

Virtualization improves hardware resources used in your data center. For example, instead of running one server on one computer system, you can create a virtual server pool on the same computer system by using and returning servers to the pool as required. Having fewer underlying physical servers frees up space in your data center and saves money on electricity, generators, and cooling appliances.

Automated IT management

Now that physical computers are virtual, you can manage them by using software tools. Administrators create deployment and configuration programs to define virtual machine templates. You can duplicate your infrastructure repeatedly and consistently and avoid error-prone manual configurations.

Faster disaster recovery

When events such as natural disasters or cyberattacks negatively affect business operations, regaining access to IT infrastructure and replacing or fixing a physical server can take hours or even days. By contrast, the process takes minutes with virtualized environments. This prompt response significantly improves resiliency and facilitates business continuity so that operations can continue as scheduled.

How does virtualization work?

Virtualization uses specialized software, called a hypervisor, to create several cloud instances or virtual machines on one physical computer.

Cloud instances or virtual machines

After you install virtualization software on your computer, you can create one or more virtual machines. You can access the virtual machines in the same way that you access other applications on your computer. Your computer is called the host, and the virtual machine is called the guest. Several guests can run on the host. Each guest has its own operating system, which can be the same or different from the host operating system.

From the user's perspective, the virtual machine operates like a typical server. It has settings, configurations, and installed applications. Computing resources, such as central processing units (CPUs), Random Access Memory (RAM), and storage appear the same as on a physical server. You can also configure and update the guest operating systems and their applications as necessary without affecting the host operating system.

Application virtualization

Application virtualization pulls out the functions of applications to run on operating

systems other than the operating systems for which they were designed. For example, users can run a Microsoft Windows application on a Linux machine without changing the machine configuration. To achieve application virtualization, follow these practices:

- Application streaming – Users stream the application from a remote server, so it runs only on the end user's device when needed.
- Server-based application virtualization – Users can access the remote application from their browser or client interface without installing it.

Desktop virtualization

Most organizations have nontechnical staff that use desktop operating systems to run common business applications. For instance, you might have the following staff:

- A customer service team that requires a desktop computer with Windows 10 and customer-relationship management software
- A marketing team that requires Windows Vista for sales applications

You can use desktop virtualization to run these different desktop operating systems on virtual machines, which your teams can access remotely. This type of virtualization makes desktop management efficient and secure, saving money on desktop hardware. The following are types of desktop virtualization.

Local application virtualization – The application code is shipped with its own environment to run on all operating systems without changes.

Conclusion

Mainly Virtualization means, running multiple operating systems on a single machine but sharing all the hardware resources. And it helps us to provide the pool of IT resources so that we can share these IT resources in order get benefits in the business.

Virtualization is the fundamental technology powering cloud computing. It separates computing environments from the physical infrastructure, thereby enabling multiple operating systems and applications to run simultaneously on a single machine.

Cloud computing is the delivery of computing resources over the internet. It offers cost savings, scalability, high performance, economies of scale, and more. For many companies, a cloud

migration is directly related to data and IT modernization.

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A Study On Fundamental Analysis Of Sectoral Growth Of Startups In India.

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Abstract

'Startup' means a Company in the first stages of operations. From single founders with no team to some of the biggest tech companies in the world, definition of 'Startup' is extremely broad — and very unclear. Entrepreneurship is the creation or extraction of economic value. Mentoring is guiding founders and imparts entrepreneurial skills and may increase the self-efficacy of nascent entrepreneurs. 'StartupIndia' is an initiative of the Government of India and its campaign was first announced by Shri. Narendra Modi, Prime Minister of India, during his speech on 15th August 2015. 'Startup India' initiative was inaugurated on 16th January 2016 by the former Finance Minister of India Arun Jaitley which will also be now celebrated as 'National Start-up Day'. The five pillars of Startup India initiative are – Facilitation, Policy, Partnership and Programs, Grass Roots Initiative and Outreach, Virtual Incubators. The term 'Aatmanirbhar Abhiyan' is used as an umbrella concept with regard to making India a larger and more involved part of the world economy, pursuing policies that are efficient, competitive and resilient, that encourage equity, and being self-sustaining and self-generating. Bold reforms across sectors to drive the country's push towards self-reliance were undertaken corroborating with StartupIndia.

Keywords: Startup, Entrepreneurship, Mentoring, Ecosystem, Incubation, Unicorns, Atmanirbhar Abhiyan

Introduction

"Never dream of becoming something, if you dream, dream of doing something."

- Shri. Narendra Modi, Hon'ble Prime Minister of India

A Startup is a human institution designed to create a new product or service under conditions of extreme uncertainty. A Startup must have the strong environment which cultivates on the features like –

Entrepreneurship – An entrepreneur is an individual who creates and/or invests in one or more businesses, bearing most of the risks and enjoying most of the rewards 'Startup'.

Mentoring – Mentoring offers direction for entrepreneurs to enhance their knowledge of how to

sustain their assets relating to their status and identity and strengthen their real-time skills.

Ecosystem – The Startup ecosystem consists of individuals, organizations, business incubators & business accelerators & top-performing entrepreneurial firms & Startups.

Internal Startups – Large companies often try to promote innovation by setting up 'Internal Startups', new business divisions that operate at arm's length from the rest of the company.

Unicorns – Some Startups become big and they become unicorns, i.e. privately held Startup companies valued at over US\$1 billion. The term was coined in 2013 by venture capitalist Aileen Lee, choosing the mythical animal to represent the statistical rarity of such successful ventures.

Funding refers to the money required to start and run a business –

Sr. No.	Stage of Operations	Round	Source of Funding
1.	Ideation	Pre-Seed Stage	Working on ideas / prototypes. Sources – Bootstrapping / Self-Financing, Friends and Family, Prize Money / Grants / Financial Benefits at Business Plan Competitions / Pitching Events, Collateral-Free Debt.
2.	Validation	Seed Stage	Product / Service launched in the market. Sources – Incubators, Government Loan Scheme, Angel Investors, Crowd Funding, Collateral-Free Debt.
3.	Early Traction	Series A Stage	Product / Service gaining market traction. Sources – Venture Capital Funds, Banks / Non-Banking Financial Companies (NBFC's) Loans, Venture Debt Funds.
4.	Scaling	Series B, C, D and E Stage	New consumers and rapidly increasing revenues. Sources – Venture Capital Funds, Private Equity / Investment Firms
5.	Exit Options		Established customer base and stable revenues. Sources – Mergers and Acquisitions, Initial Public Offering (IPO), Selling Shares, Buybacks.

This Research Paper is about “A Study on Fundamental Analysis of Sectoral Growth of Startups in India”.

Statements of The Problem:

1. Restrictive Government policies such as license raj, land permissions, foreign investment proposals, environmental clearances, etc. have hampered culture of entrepreneurship in India.
2. Business environment is not conducive for new technologies, innovation, products, services, etc. preventing entrepreneurs having a successful venture.

Objectives of The Study

The principal objectives of this paper are –

1. To understand the concept of Startups in India.
2. To analyze Sectoral Growth of Startups in India.
3. To evaluate the policy implementation of Sectoral Growth of Startups in India.

Hypothesis of The Study

There is no significant relationship between Startup and Sectoral Growth in India.

Research Methodology

Research Design: The entire research is carried out by descriptive research design. It helps us to study the Sectoral Growth of Startups in India. It studies the main areas where problem lies and also tries to evaluate some appropriate courses of action with the help of formulated hypothesis based on techniques availability.

Sample of the Study: Startup Sector in India

Period of the Study: The secondary data of the Startup Sector in India was collected for the year 2016 - 2022 which helps in a more logical manner to compare & analyze amongst them.

Techniques of Data Collection: This study is based on secondary data only gathered from published material in various Journals, Books, Reports of Surveys by Private and Public Institutions & Ministries, Websites, Newspapers, various Research Studies & e-resources.

Techniques for Data Analysis: Data collected from the above sources is analyzed by using appropriate methods like tabulation, charts, percentages, averages, etc. The results drawn from the application of above tools helps us in generalizing the inferences regarding the Sectoral Growth of Startups in India.

Significance of The Study

1. Startup India initiatives undertaken in various sectors would serve as a standard for other bodies in pursuance of their activities.
2. “A Study on Fundamental Analysis of Sectoral Growth of Startups in India” has not been undertaken gives the vital piece of literature & will provide new spaces for further research.
3. The measures highlighted in the study will help a person in analyzing the sectoral growth of Startups in India & in reciprocate its regards for the country.
4. It provides a compilation of practices followed by Startups in various sectors; hence it calls for other bodies to mandatorily set targets in their Startup activities.
5. The holistic Startup methodology would serve as a guide to the sectoral growth in best performance of their activities.

Scope of The Study

1. Studying the sectoral growth of Startups in India & its performance.
2. Analyzing Startup policies which were adopted & its results in various sectors in India.
3. Evaluating sectoral growth of Startups in India & providing generalizations for Startups

Limitations of The Study

1. The study has covered only the sectoral growth of Startups in India & not their financial reporting or other forms of communication.
2. Tools and techniques of data analysis are based on time and resources available and applicable to nature of data.
3. The hypothesis is not tested on T, F, or Chi-square test, but on logical ground.

Review of Literature

1. #Startup India, The Way Ahead, Prarambh Power of Enthusiasm, New Delhi: DPIIT, Ministry of Commerce and Industry, Government of India, 2021, the book details about the journey so far i.e. 41,000+ Startups recognised by DPIIT across 54 sectors and 224 sub-sectors, etc. Startup India Action Plan, The way ahead – Starting up, Government connect, Ecosystem a canvas, Entrepreneurship in every corner, Building capacities enhancing capabilities, developing competency of global scales, Digital Aatmanirbharta make in India for the world.
2. #Startup India, Action Plan, New Delhi: Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce

and Industry, Government of India, January, 2016, the objective of the book is to address action plan in focusing on three areas –

1. Simplification and handholding – Self-certification, Startup India hub, mobile app & portal, legal support and fast-tracking patents, relaxing norms of public procurement, faster exit;
2. Funding support and incentives – Fund of funds with a corpus of ₹ 10,000 Crore, credit guarantee fund, tax exemption – capital gains, 3 years, investments above fair market value;
3. Industry-Academia partnership and incubation – Startup fests, Atal Innovation Mission (AIM), Self-Employment & Talent Utilization (SETU) program, harnessing private sector incubator setup, innovation centres at national institutes, research parks, biotechnology sector, innovation focused programs for students, annual incubator grand challenge.

3. #Startup India, Evolution of Startup India Capturing the 5-Year Story, New Delhi: DPIIT, Ministry of Commerce and Industry, Government of India, December, 2020, the objective of the book is to disseminate and propagate the success of Startup India among masses. The book explains in details about the Startup India – journey of evolution, Startup India recognition, state and sector-wise split of funds of funds for startups, Startup India hub: an interactive guide to the ecosystem, empowering the states, Startup India yatra, national Startup awards: rewarding ecosystem enablers, stakeholder engagement and marquee events, Startup India tableau at republic day parade, January, 2020. Till 2022-23, 41,317 Startups are recognized by DPIIT.

4. #Startup India, Startup India Kit, New Delhi: Invest India, National Investment Promotion & Facilitation Agency, DPIIT, Ministry of Commerce and Industry, Government of India, May, 2022, this book is basically for budding entrepreneurs, visionaries, dreamers and mentions 69,000+ Startups recognised by DPIIT. It is a handbook to learn more about the benefits offered under the Startup India Initiative and the process to avail them like market access support, regulatory support, public procurement benefit, funding support, tax benefits, Intellectual Property Rights (IPR) support, amongst others. It also details about Startup India online platform i.e. www.startupindia.gov.in.

Concept Of sectoral Growth of Startups In India

A Startup in India is defined as an entity that is headquartered in India, which was opened less than 10 years ago, and has an annual turnover less than ₹100 crore. Under this initiative, the government has already launched the Mobile App Development Ecosystem (I-MADE) program, to help Indian entrepreneurs build 10 lakh mobile app start-ups in collaboration with 11 Indian universities, and the MUDRA Bank's scheme (Pradhan Mantri Mudra Yojana), an initiative which aims to provide micro-finance, low-interest rate loans to entrepreneurs from low socioeconomic backgrounds for which initial capital of ₹20,000 crore has been allocated.

Highlights of the Startup India scheme are –

1. ₹10,000 crore Startup funding pool.
2. Reduction in patent registration fees.
3. Improved bankruptcy code, to ensure a 90-day exit window.
4. Freedom from inspections for the first 3 years of operation.
5. Freedom from capital gain tax for first 3 years of operation.
6. Freedom from tax for the first 3 years of operation.
7. Self-certification compliance.
8. New schemes to provide IPR protection to Startup firms.
9. Built Startup oasis as Rajasthan incubation center.

The Ministry of Human Resource Development and the Department of Science and Technology have partnered in setting up over 75 Startup support hubs. The DPIIT coordinates implementation of Startup India initiative with other government departments. The Reserve Bank of India has also taken steps to improve the 'ease of doing business' start-up businesses. All Indian States and Union Territories have taken exemplary initiatives in Startup India Scheme. As per the Industry-Academia Partnership and Incubation, 'Research Parks' are created in partnership with higher education providers. An initial investment of ₹100 crore, has been set aside for the program, which aims to provide students with access to funds and mentorship for Startups. State Rankings and National Startup Awards recognizing excellence in Entrepreneurship Sector-wise had promoted Startup India initiative to a great extent and help in achieving substantial growth in various sectors. Aatmanirbhar Entrepreneurs include 'vocal for local', 'local for global', 'make for world' and 'brain drain to brain gain': India's Unicorn now worth \$ 168 Billion, 3 New Unicorns every month in 2021, Home to 51 Unicorns.

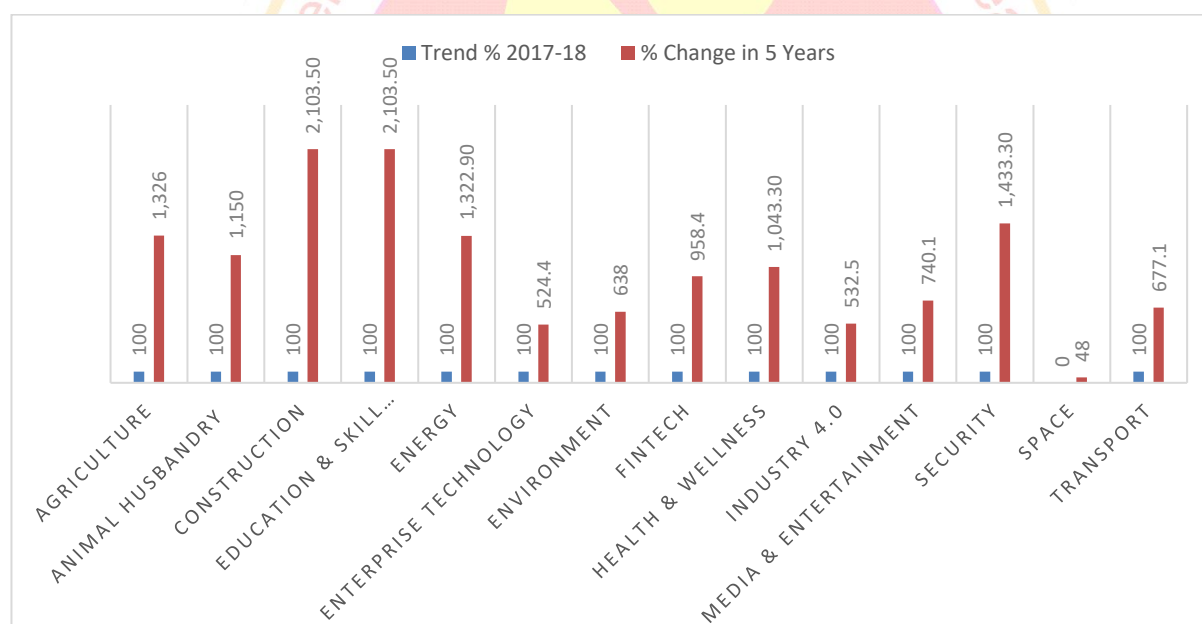
FINDINGS

1. Data Collection, Tabulation and Analysis:

Sr. No.	Sector	Co.'s Regd. till Year.		Trend %		% Change in 5 Years	Ranking
		2017-18	2022-23	2017-18	2021-22		
1	Agriculture	268	4,090	100	1,429	1,326	3
2	Animal Husb.	16	216	100	1,250	1,150	5
3	Construction	144	3,317	100	2,203.5	2,103.5	1
4	Education	144	3,317	100	2,203.5	2,103.5	1
5	Energy	249	3,792	100	1,422.9	1,322.9	4
6	Technology	217	257	100	624.4	524.4	12
7	Environment	84	704	100	738	638	10
8	Fintech	231	2,676	100	1,058.4	958.4	7
9	Health	173	2,151	100	1,143.3	1,043.3	6
10	Industry 4.0	353	2,239	100	632.5	532.5	11
11	Media	137	1,288	100	840.1	740.1	8
12	Security	54	882	100	1,533.3	1,433.3	2
13	Space	0	48	0	48	48	13
14	Transport	153	1,342	100	777.1	677.1	9

Note: Sectors represented above are shown as per their importance and data availability.

2. Graphical Representation:



3. Interpretation:

It can be seen from the above that all sectors has made substantial growth in last 5 years and are ranked accordingly to the highest growth attained in the concerned sector.

Ranking	Sector	% Change in 5 Years
1	Construction	2,103.5
1	Education and Skill Development	2,103.5
2	Security	1,433.3
3	Agriculture	1,326

4	Energy	1,322.9
5	Animal Husbandry	1,150
6	Health and Wellness	1,043.3
7	Fintech	958.4
8	Media and Entertainment	740.1
9	Transport	677.1
10	Environment	638
11	Industry 4.0	532.5
12	Enterprise Technology	524.4
13	Space	48

In last 5 years, Construction and Education & Skill Development Sectors has achieved more than 2000% growth, whereas Security, Agriculture, Energy, Animal Husbandry, Health and Wellness Sectors has achieved more than 1000% growth, while Fintech, Media and Entertainment, Transport, Environment, Industry 4.0, Enterprise Technology Sectors has achieved more than 500% growth and lastly Space Sector has achieved merely 48% growth as it comes under government domain resulting in modest growth in outsourced areas.

Conclusions

1. It can be seen from the above that there is a significant relationship between Startup and Sectoral Growth in India.
2. The concept of Startup India has been taken into well consideration by Individuals / Organisations working in different sectors in India and achieved phenomenal growth.
3. Proactive action from Central and State Governments has spurred growth and fostered the entrepreneurial culture in the country.

Suggestions

1. To take into consideration standards and best practices followed all over the world with regards to Startups & calls for a specific standard for Startup India to be followed mandatorily.
2. Specialised Bank Branches for Startups to provide end-to-end support at every stage and one-stop shop in providing investment banking, treasury / forex, advisory and other ancillary financial services.

3. Government initiatives and policies in creating a favourable environment for Startups, enabling expansion of infrastructure, co-working spaces, incubators, accelerators and access to funding and market.

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Comparative Study of Customers Satisfaction With Reference To Airtel and Jio

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Abstract

With telecom industry thriving, mobile companies are trying their level best to have an edge over the others and increase their market share and subscriber base. At present Reliance Jio and Bharti Airtel are leading in their market share and subscriber base. This research paper examines various viewpoints in regards to Jio and Airtel to assess customer satisfaction. Questionnaire were sent online for the research having questions relating to factors affecting customer satisfaction namely, quality of service including data speed, internet connectivity, etc. and tariffs. An attempt is made to understand the strengths and weaknesses of both the companies to find out in which areas they are lacking and which are the points where they fare better than the other leading to increase in their customers. A sample size of 200 respondents, of which 100 were Airtel users and 100 were Jio users, was taken. The findings showed that there is no significant difference between customer satisfaction either from Airtel or from Jio. In some variables like economy mainly call cost per minute and new schemes, Jio users find it satisfying, whereas when it comes to connectivity and better network coverage, Airtel users enjoy higher level of satisfaction than the users of Jio.

Keywords: Airtel, Customer Satisfaction, Jio, Mobile, Telecommunication

Introduction

Development in telecommunications and internet service providers have played a catalyst in cell phones becoming a part and parcel of life. More and more citizens are getting mobile and internet savvy. India ranks as second largest in telecommunications market and in terms of total internet users. And it is expected to grow more. This has led to 4G and 5G services and smarter smart phones. Many keep shifting from one service provider to another, if not satisfied. With competition increasing, each telecom and internet provider are trying to find out new and innovative ways to have an edge over the other providers. Just under cutting each other will not hold good in terms of profit and in the long run. They have to come up with new products and services as well as new schemes. They have to understand and cater to the changing needs of the customers.

Bharati Airtel, Reliance Jio, BSNL, and Vodafone Idea are the major players at present in the Indian market. But in terms of market share, profitability and subscriber base, Airtel and Jio lead. The study therefore is for comparing customer satisfaction from users of Jio and Airtel.

In terms of market share Jio has held 35% of the market share among the rest of the other companies whereas Airtel has a 31.56% market share in the telecommunication sector.⁷ Regarding subscriber base, Reliance Jio has 42.6 crores subscribers against Bharti Airtel which has 36.8 crores.⁶

Statistics available on the net show that Jio leads in number of subscribers but when it comes to

revenue and profitability, Airtel is number one. The reason for lack of profitability in case of Jio could be attributed to it being a relatively new in the market in comparison of Airtel.

Bharti Airtel Limited, under the business name of Airtel, has operating in the since 1995. It has its headquarter in New Delhi and operates in 18 countries of Asia and Africa. Airtel provides services namely, landline telephones, cell phones, broadband, television – digital, satellite, internet and internet protocol and payment bank. In India, the company's product offerings include 2G, 3G and 4G LTE, and 4G+ services, mobile commerce, fixed line services, high speed home broadband, DTH, enterprise services including national & international long-distance services. In the last year, as per report in June 22, it has gained around 7,10,000 new users.

A subsidiary of Reliance Industries, Reliance Jio operating since 2007. Headquartered in Mumbai, it offers multiple services like traditional as well as mobile phones, internet services through wireless broadband and OTT services. In September 2019, Jio launched a fibre to the home service, offering home broadband, television, and telephone services. It provides voice over LTE to provide voice service on its 4G network and does not give 2G or 3G service. It also offers 4G+ services and plans to e. However, furthermore, it is planning to provide 5G and 6G services too. As a wireless service provider, it has the highest market share. As per report in June 2022, in the last year, it has lost around 9.3 million subscribers.

Airtel is a purely and primarily a telecommunications company as against Jio, which has interests in a variety of industries, being a part of Reliance Industry. **Despite being the oldest multinational company in telecom, Airtel does not manufacture its mobile phones.** On the other hand, Jio came to the telecom industry only a few years ago and has released its own branded mobile phone with a high-speed network connection.

Both companies offer 1 GB plan. In this segment, Jio's plan has price advantage. While Jio offers its 28 days plan at Rs. 209, the same costs Rs. 265 with Airtel. Similarly, Jio's 24 days plan is priced at Rs. 179 while you will have to buy this plan from Airtel paying Rs. 239.⁹ Both offer prepaid and post-paid plans with varying data and call allowances. In this too Jio has price advantage. Regarding offering of broadband services, Airtel offers fiber as well as DSL broadband plans with speeds up to 100 Mbps whereas Jio offers fiber broadband plans with speeds up to 1 Gbps.

With booming market in telecommunications and information technology, the mobile market in India is expanding quickly, the service providers have to adapt quickly to the changing environment and needs of customers. For this they are required to assess the level of customer satisfaction. Jio is leading in market share, but Airtel, which has been in the market since more than two and a half decades too is not far away from it. The responses provided by the customers are used to determine whether adjustments to the business practises are required to raise overall customer satisfaction. The study aims at identifying the most preferred Telecom service among the two. It will also give an insight into the strategies they will have to adopt to have an edge over the other.

Objectives

1. To study the services provided by Reliance Jio and Airtel mobile services.
2. To find out customer satisfaction from using Jio and Airtel mobile services.
3. To identify the factors influencing the customer satisfaction of mobile service users.

Literature Review

Umameshwari, K. (2020)¹⁹: In her study it was seen that demographic variables – age, gender and occupation have no impact on factors of customer satisfaction and most of the customers were satisfied with Airtel and Jio with respect to the factors chosen – tariff, data plan, service coverage, compatibility, etc.

Nurysh N, Naghavi N, Fah B.C.Y(2019)¹⁵: Here critical variables like perceived value and service quality that have a direct impact on customer satisfaction with Malaysian mobile phone providers were looked into. Also investigated between factors is the moderating impact of alternative appeal. Thus, it can be seen through empirical results based on quantitative research and additional multiple regression analysis that perceived value and service quality have a favourable impact on customer satisfaction. However, it was discovered that there is no influence on improving or enhancing pleasure from the combination of the two variables with alternative attractiveness.

Yadav, R.K. and Dabhade, N. (2019)²⁰: This study sought to identify key unstated variables that affected customer satisfaction in the Indian mobile service sector. A number of satisfaction indicators were examined, including communication services, network problems, technology, price, brand image, and customer care services. Reliance Jio's entry into the Indian telecom industry in December 2015 caused a distraction and stimulation in Madhya Pradesh as Jio offered a variety of free communication options, cheaper data packs, and free voice calls without roaming. This cautioned the already present players in the market and compelled them too to deliver services at lower cost. The nature of this research study was exploratory. The results demonstrated that in the mobile service sector, plan diversity and network signal quality were two crucial predictors of consumer happiness.

Poulose J, Sharma V, Joseph S (2018)¹⁶: The purpose of this study was to evaluate a model of various factors, including customer relationship management, alternative attractiveness, switching costs, satisfaction, loyalty, and switching barriers that influence consumer retention strategies in the Indian telecom service industry. The information was gathered from respondents in the three most populous cities in Central India—Indore, Bhopal, and Ujjain. According to the findings, customer relationship management, switching barriers, loyalty, and satisfaction are all strongly correlated and directly affect customer retention, although the association with alternative attractiveness has been found to be poor. The relationship between independent and dependent variables exhibited a considerable variation due to switching cost, which was determined to be a very effective moderating variable.

There are many papers on comparative study on customer satisfaction from Airtel and Jio. But with changing technologies and services offered, an attempt is required to find out in the

present times. Till now it was done for specific states and foreign countries, but not for a metro city. The respondents for the present study were from SRM College, Chennai.

Research Methodology

The present study is descriptive as well as exploratory. Primary as well as secondary data used for the study. A structured questionnaire was used to collect the data. Secondary data is collected from research papers, Annual reports of Telecom service providers, Journals on Telecom sector and through the website of TRAI, Ministry of Communications, Telecom service providers etc.

Data Collection:

For collecting Primary Data, total 200 respondents were taken, of which 100 each were users of Airtel and Jio.

Service Users	No. of Respondents
Airtel	100
Jio	100

It was a convenience sampling with respondents being selected from SRM College. A structured questionnaire in google form was framed taking into account various factors which affect customer satisfaction. It was sent by WhatsApp to various students' groups of the college and forms of first 100 users of Airtel and Jio were considered for analysis.

Data Analysis And Interpretation

Table No. 1: First Time Users of Airtel & Jio

First Time Users	Airtel	Jio
Yes	34	30
No	66	70
Total	100	100

The above table shows that of 100 Airtel respondents, 34% are first time users while 66% are not and among 100 Jio respondents 30% are first time users.

Table No. 2: Source of Information for Purchase

Source	Airtel	Jio
Newspaper	3	4
Advertisement	39	58
Friends and Family	58	38
Total	100	100

As per the above Table No. 3, for Airtel nearly 60% were influenced by recommendation by family and friends whereas for Jio, advertisements worked for them (60%).

Table No. 3: Features that Influenced Buying Decision

Features	Airtel	Jio
Connectivity (Signal Strength)	50	49
Data Speed (Network Availability)	51	52
Attractive Schemes	34	39

The above table shows that around 50% were influenced by the connectivity and data speed, attractive schemes influenced 34% of Airtel users and 39% of Jio users.

Table No. 4: Chance of Recommending Airtel/Jio to Friends

Recommending to Friends	Always	Most Likely	Like ly	Rarely	Never	Total
Airtel	4	26	48	10	12	100
Jio	12	44	22	18	4	100

The above table shows that when it comes to two extremes, always and never, Airtel shows 4% always and 12% never whereas just the opposite is that of Jio with 12% stating that they will always suggest Jio to their friends and 4% suggested that they would never recommend it to their friends. Most likely to be recommended to friends were for Jio with 44% against Airtel at 26%.

Table No. 5: Problems Faced by Customers

Problems	Airtel		Jio	
	Yes	No	Yes	No
Connectivity	36	64	24	76
Unwanted alert and call messages	64	36	76	24
Convenience of Service Outlets	56	44	72	28
Total	100	100	100	100

Minority of respondents had problem with connectivity and majority had problems with unwanted alert calls and messages and convenient service outlets.

Table No. 6: Users Availing Customer Care Services

Availing Customer Care Services	Airtel	Jio
Yes	75	67
No	25	33
Total	100	100

Table No. 6 depicts that 3/4th of Airtel users use Customer Care Services in comparison of Jio where 2/3rd of customers make use of such services.

Table No. 7: Reasons for Availing Customer Care Services

Customer Care Services	Airtel	Jio
Complaint	42	24
Query	16	35
Value Added Service	09	17
Information on New Schemes	33	24

From the above table shows that among Airtel respondents who availed customer care service, maximum, 42%, called for registering complaints, and 33% for information on new schemes. Only 16% used it for queries and 9% for getting information about value added service. Among Jio respondents who availed customer care service, majority 35% were for enquires, 24% were for registering complaints and to get information on new schemes and only 17% used the customer care services for information on value added plan.

Table No. 8: Average Monthly Recharge Expenditure of Users

Average Monthly Recharge Expenditure(in Rs.)	Airtel	Jio
100 – 200	15	26
200 – 300	53	44
300 – 400	28	27
Above 500	4	3
Total	100	100

From the above table it can be seen that maximum monthly recharge expenditure falls between Rs. 200 to Rs. 300, followed by Rs. 300 to Rs. 400. Only 3 to 4% recharge it for above Rs. 500.

Table No. 9: Usage Duration of Airtel and Jio

Usage	Airtel	Jio
< 1 month	5	9
1 – 6 months	11	11
> 6 months	20	23
> 1 year	64	57
Total	100	100

Regarding usage duration, it could be seen that for Airtel and Jio, the duration is more than one year.

Table No. 10: Overall Level of Satisfaction of Customers

Overall Satisfaction	Highly Satisfied	Satisfied	Neutral	Not Satisfied	Highly Dissatisfied	Total
Airtel	16	50	30	4	0	100
Jio	6	64	26	4	0	100

The above table shows for Airtel 16% are highly satisfied and 50% are satisfied while 30% were neutral and 4% are not satisfied with the overall performance. None of the customers were highly dissatisfied. In case of Jio only 6% were highly satisfied whereas 64% were satisfied. None were highly dissatisfied.

Table No. 11: Loyalty to the Brand

Loyalty	Airtel	Jio
Yes	70	61
No	30	39
Total	100	100

70% of Airtel customers opted to stick with the company. In fact, a sizable number of consumers who were prepared to leave their current subscribers also expressed interest in Airtel. Therefore, this status suggests that the company is headed in the right direction.

Findings

- 30% and 34% are the first-time users of Airtel and Jio respectively.
- Most of the users of both the telecommunication service providers.
- Connectivity, followed by attractive schemes are the major factors that influence the buying decision of a service provider.
- Regarding recommending the service provider to friends, 44% were most likely in case of Jio and 26% in case of Airtel, though for likely recommending 48% were Airtel users and 22% were Jio users.
- Unwanted alter and call messages was the major problem faced by the respondents followed by convenience of service outlets.
- Data shows that 3/4th of the Airtel users that contacted customer care service were for registering complaints in comparison to 2/3rd in case of Jio users.
- Most of the companies approaching customer care service were to register complaints and get information of new schemes.
- Majority of respondents monthly expenditure on an average was between Rs. 200 to Rs. 300.
- Majority of users were making use of the services since more than a year.
- Regarding overall satisfaction, 64% of the Jio users were satisfied whereas it was 50% in case of Airtel users.
- More percent of Airtel users are loyal to the service providers, than Jio users.

Suggestions

- Both companies need to work on its Post-Paid services as number of users is less.
- Both should avoid unwanted alter and call messages.
- Airtel needs to understand to handle complaints and ensure that the number of complaints are reduced.

4. Airtel as well as Jio should introduce new schemes to avoid losing customers.
5. Company needs to work a little more on its value-added services.
6. Jio should try to build brand loyalty, and not be just one for whose free offers people wait for.

Conclusion

From the analysis, it can be clearly seen that both the top two players provide customer satisfaction, though more customers are satisfied with Jio. Both are introducing cutting edged plans and introducing improved deals and schemes. Both are leading, it has to be seen as to who will be the market leader.

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Study of Importance of Business Correspondent in Spreading The Awareness of Social Security Schemes

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Abstract

Making our India Self-Reliant under the campaign of Atmanirbhar Bharat Abhiyan is a strategic plan for achieving the goals of sustainable development of our country. It was announced by Hon'ble Prime Minister on 12th May 2020. One of the pillars of the Atmanirbhar Bharat Abhiyan is the 'Economy'. Inclusive growth and sustainable development are essential for economic development.

The government is taking the steps towards Atmanirbhar Bharat through the policy of financial inclusion. It includes the policy of PMJDY (Pradhan Mantri Jandhan Yojana) in the year 2014, Social security schemes like PMJJBY- Pradhan Mantri Jeevan Jyoti Bima Yojana, PMSBY- Pradhan Mantri Suraksha Bima Yojana, APY-Atal Pension Yojana etc in the year 2015. After launching the Pradhan Mantri Jandhan Account people of underprivileged sector of India got connected to the banking sector. The Government of India then brought the strategic plan to float the social security schemes through the banking sector.

In the year 2006 January the RBI had introduced the concept of Business correspondent as per the suggestion given by Nachiket Mor Committee. Business Correspondents are the agents appointed by banks for providing the banking services at the areas where the bank branch or ATM is not located.

Our research will be carried to find out how Business Correspondents can contribute in spreading an awareness as well as link the people of unorganised sector, underprivileged class to the social security schemes introduced by the government to ensure the financial inclusion and literacy on large extent.

This study will help us to know in what way maximum people can become the beneficiaries of these social security schemes with the help of BC: Business Correspondent.

Keywords: Business Correspondents, Social Security Schemes, campaign

Introduction:

Financial inclusion is very important parameter that decides the stage of development of any country. Financial inclusion means everyone of nation have the access of affordable financial products and services that satisfy their financial needs like savings, transactions, credit, insurance, and investments. These services are required to be delivered in a responsible and sustainable ways. According to World Bank it considers as key element to reduce poverty and support in achieving the prosperity. Financial inclusion is one of the important goals of sustainable development. It is important to achieve the goal of removing **Inequality and Ensuring the wellbeing** of the society. In the year 1969 bank nationalisation was done for financial inclusion through mass banking. By taking in to consideration the challenges encountered in achieving the expected growth in financial inclusion Reserve Bank of India had introduced branchless model i.e Business Correspondent previously known as Business Facilitator popularly recognised as Bank Mitra as per the commendations given by Nachiket Mor Committee in 2006. These are third party authorised agent appointed by bank. Business Correspondents delivers various banking services with the help of technology based on Aadhar as

major customer identification. BC links unbankable area to the nearest located bank. BC can be individual or institutional like NGOs, Cooperatives societies, farmers clubs, post offices, insurance agents, well-functioning Panchayats, Agriculture business centres etc.

The government is marching towards **Jan Dhan Se Jan Suraksha**. Pradhan Mantri Jan Dhan was introduced in the year 2014 to bring the maximum population in banking channel. For the inclusive and sustainable growth, the Indian government has introduced Janasuraksha Schemes on 9th May 2015. Some changes are brought in the architecture of the social security schemes. **From 1st Oct 2022 tax payer is not allowed to enrol under this scheme.**

The central idea of this research paper is to understand the need of educating society about social security schemes with the help of BC: Bank Mitra

1. To know the importance of social security schemes.
2. To study the role of Business Correspondent in penetrating the social security schemes to the last person of the society.
3. To suggest ways of spreading more awareness of social security schemes amongst underprivileged group of the

society through bank appointed agent known as BC.

Literature Review

As per World Bank financial inclusion report due to the mobile revolution the millions of underprivileged customers are moving from informal and cash-based transactions to formal digital transactions. Most of the countries are drafting the financial inclusion strategies.

'The person from underprivileged class suffers the problem of seasonality, assurance of fixed income, lack of awareness about the various schemes and absence of social security protection' Nearly 90% of the India's workforce is in informal sector with no minimum wages and social security.

The Government has taken the initiative of launching bank linked Janasuraksha Schemes known as PMJJBY (Pradhan Mantri Jeevan Jyoti Bima Yojana), PMSBY (Pradhan Mantri Suraksha Bima Yojana) and APY (Atal Pension Yojana) to give the economic justice to the neglected sector of the economy. Through these schemes there is auto-debit of the premium which is affordable to the poor people of the country. **It is a universal social security scheme.** Union Finance Minister Smt. Nirmala Sitharaman expressed that low-cost insurance schemes and the guaranteed pension scheme are ensuring that Janasuraksha to the last person of the society. The government constituted one committee headed by the member of IRDA: Insurance Regulatory Development Authority for reviewing the policy and its premium rates. The committee recommended to raise the premium rates to make the schemes updated and viable. Accordingly, the premium rates are revised on 1st June 2022.

Dr.ThirumaValavan A (2015) in his study Challenges in Business Correspondent Model - An Empirical Study noted that the financial literacy campaigns to be organised to spread the awareness about the various facilities given by BC to the villagers. He further noted that in order to gain the popularity and acceptance of BC from the villagers BC is to be announced by known person of the village.

Shigufta Hena Uzma and Suvendu Kr. Pratiha (2019) in her study Financial Modelling for Business Sustainability: A Study of Business Correspondent Model of Financial Inclusion in India noted that for the sustainability of BC model BC model can be the effective tool for the banks for better market penetration and expansion so that more financial inclusion can be achieved.

Dr.TapaskumarParida (2016-17) in his study-Measuring impact of Insurance including Janasuraksha schemes on insurance consumption in India noted that the popularisation and implementation of Janasuraksha schemes by banks has resulted in the rise of the awareness levels about the insurance and its needs. It has resulted in the rise of demand for Janasuraksha schemes.

Know about the Janasuraksha Schemes as a mode of financial justice to the citizen

A. PMJJBY (Pradhan Mantri Jeevan Jyoti Bima Yojana)

Government had introduced **life insurance** scheme in the year 9th May 2015. It offers life insurance cover to the policyholder for death due to any reason to the nominee. The recent premium against Rs.2lakh sum assured, is Rs. 436/-(w.e.f. 1st June 2022) where the premium is made auto debited to the account. During 1st June to 3rd May there must be the sufficient balance in the account for the debit of the premium.

Eligibility is the age of the policyholder is 18 to 50 years. Aadhar is the minimum requirement as KYC compliance. The scheme is offered through LIC and other Life Insurance companies willing to offer the product on similar terms with necessary approvals and tie ups with Banks or Post office for this purpose.

B. PMSBY (Pradhan Mantri Suraksha Bima Yojana)

Government had introduced **accident insurance** scheme in India in the year 9th May 2015. It offers accidental insurance in case of an accident of the policyholder for death and disability cover on account of an accident. The risk coverage under the scheme is Rs.2 lakh for accidental death and full disability and Rs. 1 lakh for partial disability. The recent premium against Rs.2 lakh sum assured is Rs. 20/-(w.e.f. 1st June 2022) where the premium is made auto debited to the account. During 1st June to 3rd May there must be the sufficient balance in the account for the debit of the premium.

Eligibility is the age of the policyholder is 18 to 70 years There is an annual auto renewal of the policy. Aadhar is the minimum requirement as KYC compliance. The scheme is being offered by Public Sector General Insurance Companies or any other General Insurance Company who are willing to offer the product on similar terms with necessary approvals and tie up with banks for this purpose.

C. APY (Atal Pension Yojana)

Government had introduced **pension** scheme in India in the year 9th May 2015 with the theme of minimum investment and maximum benefit. It offers pension product that is monitored by

PERDA: Pension Regulatory Authority of India. It supports the citizen especially unorganised sector workers to get monthly pension when they are no longer earning any fixed income. It helps in securing one's economic wellbeing during old age. The subscriber i.e Pension holder decides the expected monthly amount of pension from Rs. 1000, Rs. 2000, Rs. 3000, Rs. 4000 and Rs. 5000 on which the amount of premium is required to pay. Under APY after the demise of subscriber his or her spouse continues to get the monthly pension and after the death of spouse the registered nominee gets the benefit of Rs. 1,70,000 in case of 1000 monthly pension, Rs. 3,40,000 in case of Rs. 2,000 Rs. 5,10,000 in case of Rs. 3,000 Rs. 6,80,000 in case of Rs. 4000 and Rs. 8,40,000 in case of monthly pension of Rs. 5,000. Accordingly, the three persons per each APY is going to get the benefit of APY like subscriber, spouse of subscriber and nominee of subscriber.

As on April 2022 the Enrolment of this scheme is

Sr. No	Particulars	PMJJBY	PMSBY	APY
1	Enrolments	13.11 cr	29.01cr	47,24,189

Source: <https://pib.gov.in/pressreleaseiframepage.aspx?rid=1783535>

From the above table as enrolment under APY is less and under PMSBY is high. It may be due to the amount of the premium i.e Rs. 20 per year which is very less in case of PMSBY. But if you compare with the total population of the country, we have to take more efforts to spread the awareness and organise the linking programs. The Department of Financial Services GOI has issued circular on 20th March 23 about the **3 month saturation campaign** for the jansuraksha schemes at gram panchayat level during 1st April 23 to 30th June 23. The objective is to penetrate schemes on urgent basis to the last person of the society.

According to Mr. N.K.V Roop kumar and Dr. D.D. Harsolekar (2021) in his study- A study on the effect of socio economic factors on the awareness of Janasuraksha schemes amongst the poor and underprivileged sections of the society noted that in order to reduce the proportion of 'Non Awareness of Jansuraksha schemes amongst the excluded sections of the society the special groups or categories are needed to be given special attention to and various communication initiatives relevant and specific to these groups should be formulated and implemented. Special interest groups need to be engaged and trained in the use of audio-visual communication to create the awareness.

Research Methodology

*Data Collection:

1. Primary data:

The study is based upon the Observations during the implementation of two pilot projects of Depositors' Education and Awareness Fund RBI at rural and semi urban areas, Nimgaon Mahalungi, Shirur, Pune and Saswad Pune respectively. Experiences shared by BC on the social security schemes about the opportunities and challenges.

2. Secondary data:

The study is based on secondary source of data consisting of RBI reports, official website of Ministry of finance and government of India and research papers are reviewed for finding the research gap. RBI guidelines about the working of BC, Department of Financial Services GOI Circulars related with the social security schemes.

Findings:

1. During corona pandemic the people realized the importance of these social security schemes. It has made possible for BC to make its popularity public.
2. BC not only links the subscribers to the scheme but also keeps follow up and one to one mentoring and handholding, it would be rather difficult for the bank at their level.
3. BC is not an official banker but this role recognizes him or her more due to the personal attention and service.
4. People from the various parts of the country are not aware about these schemes even though they have a savings bank account.
5. Some people knows about these schemes but unable to get enrolled with the bank due to inability of banker to support and guide the illiterate people through their staff and BC.
6. The bankers at the various branches at rural and semi urban areas are not acquainted with the regional language hence not able to communicate it properly with the BC as well as customers.
7. The appointed BC if not belonged to the local area, then local people are unable to keep trust on stranger to get linked with the Schemes.
8. The people are unaware about the successful stories of enrolled people under these schemes.
9. People have their bank account with cooperative bank and belongingness to this bank but they do not get this facility from Cooperative banks.
10. The appointed BC do not get quick services and guidance on priority basis from bank, even though he or she is supporting the bank to increase their business and reputation.

11. The network issue is many times makes hurdle in getting the enrollment fast.
12. The customers are not educated or made follow up either by BC or Bank about maintaining the balance between 1st June to 3rd May as against the auto debit of premium to continue the scheme.
13. The district coordinator: DC of BC is coordinating, guiding, and monitoring the activities of BC and having many areas under his or her control. So naturally it becomes difficult for DC to implement task effectively.
14. Many times acquiring the required infrastructure for being BC like Laptop and Aadhar identification machine is itself makes challenge.

Suggestions:

1. As the people from rural, semi urban area are having bank account at cooperative bank and they feel more comfortable with them. If Cooperative banks get the target of enrolling more customers to these schemes through their BC, then this number of beneficiaries can be more effective.
2. Through appointed BC wide publicity of the success of the scheme can be given so that these customers can understand its importance. Make the information available with the BC about the success stories of the schemes.
3. The bank can organize not only the financial literacy but also enrollment campaigns through BC and it is required to educate about the rights and duties of the customers.
4. The appointed BC should get the priority when he or she comes in the bank with any requirement or compliance of the services on behalf of the customers.
5. If the colleges are involved to support to the BC towards spreading the awareness of social security schemes, then it will be the win-win situation to nation, bank, BC as well as students.
6. Lead bank can take the efforts to minimize the allotted areas of District Coordinator for effective mentoring and handholding of BC.
7. Lead bank can acknowledge efficiency of BC by announcing **Best BC Award** every year.
9. The required infrastructure for BC is laptop with Window 10 for connectivity and Mantra Machine for Aadhar identification that can be given on rent by the banks to tap more deserving person as BC.

Conclusions:

BC model can be more effectively used by lead banks of the various districts to educate, link,

handhold and make the database of the beneficiaries of the social security schemes for the follow up of its administration. It will help to build the confidence and trust over the social security schemes and in real sense the outcome will be more impressive and productive,

Glimpses of the Interaction with BC of Bank of Maharashtra a lead bank of Pune District



Interaction with BC at Nimgaon Mahalungi Interaction with BC at Saswad

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Internet of Things (IoT) Security Challenges

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Abstract-

The Internet of Things (IoT) developed the global network containing of people, smart devices, intelligent objects, information, and data. It is no secret that as more and more devices connect to the internet, the challenges of safeguarding the data that they transfer and the communications that they initiate are becoming more reflective. Over the years, we have seen a surge in IoT devices, broadly in two areas – in homes and in manufacturing. With the former, we have seen an entire ecosystem built around Amazon's Echo devices using the Alexa Voice Service. Google, Microsoft, and Apple have followed suit as well. Since these are self-determining and closed platforms, the responsibilities of securing the devices rest with the platform providers. In this paper, we highlights cyber security in manufacturing and related industries. Industries such as manufacturing, oil & gas, refining, pharmaceuticals, food & beverage, water treatment, and many more are constantly looking to add the right layers of security, as they bring an increasing number of equipment and devices online. Device manufacturers and plant operations managers constantly face pressure to protect their physical assets from cyber threats. Moreover, for each of these industries, the nature of the data, topologies of IoT devices, and complexities of threat management and ensuring compliance vary widely.

Keywords-- Internet of Things, Cyber-attack, Security threats.

Introduction

The modern rapid development of the Internet of Things (IoT) and its ability to offer different types of services have made it the fastest growing technology, with massive impact on social life and business environments. Internet of Things (IoT) devices are rapidly becoming universal while IoT services are becoming persistent. Their success has not gone unnoticed and the number of threats and attacks against IoT devices and services are on the increase as well. The Internet of Things (IoT) is an idea that could radically alter our relationship with technology. The promise of a world in which all of the electronic devices around us are part of a single, interconnected network was once a thing of science fiction. But IoT has not only entered the world of nonfiction; it's taking the world by storm. IoT devices are no longer a niche market. They have started to move from our workspaces into our homes, where IoT devices are expected to have the most important impact on our daily lives. Most smart home devices will be benign, everyday appliances like kettles and toasters. Even if these devices are hacked and co-operated, short of ruining your breakfast, there's not a lot a hacker can do to cause you grief. The market is currently focusing on the vertical domains of IoT since it is in relatively early phases of development. But IoT cannot be treated as a single thing, or single platform, or even a single technology. In order to achieve the expected rapid growth from IoT opportunities, more focus needs to be put on interfaces, platforms, mobile applications and common/dominant standards. IoT in the education sector has already started to make the conventional education system more automated — interactive

smart classrooms are helping students learn and participate more, whilst automatic attendance and various student tracking systems could help to make schools more secure. Internet-enabled remote classrooms will be a milestone for developing countries, making deep penetration in areas where setting up a traditional school infrastructure is not possible. Internet-enabled manufacturing and industrial units are giving differentiating results, making them safer and more efficient through automated process controls. Plant and energy optimization, health and safety control and security management are now increasingly being provided by advanced sensors, networked with sophisticated microcomputers. Financial services are already leveraging the internet for many of their services. Exponential improvement in digital infrastructure and the next generation of IoT enabled products could further lead the growth of the financial sector, with innovations, such as smart wearable and smart monitoring devices, helping customers to keep better track of their money and investments. Telcos could face a surge in data usage due to IoT-enabled devices, thus raising their ARPU (average revenue per user), while on the other hand, they will also have to deal with some concerns, such as privacy and infrastructure security. While the possibilities of these new technologies are mind-boggling, they also reveal severe IoTcybersecurity challenges. During the last few years, we've seen a dramatic increase in the number and the sophistication of attacks targeting IoT devices. The interconnectivity of people, devices and organizations in today's digital world, opens up a whole new playing field of vulnerabilities — access points where the cyber criminals can get in.

Internet of Things (IOT)

The internet of things, or IoT, is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. A thing in the internet of things can be a person with a heart monitor implant, a farm animal with a biochip transponder, an automobile that has builtin sensors to alert the driver when tire pressure is low or any other natural or man-made object that can be assigned an IP address and is able to transfer data over a network. The internet of things (IoT) is a computing concept that describes the idea of everyday physical objects being connected to the internet and being able to identify themselves to other devices. The term is closely identified with RFID as the method of communication, although it also may include other sensor technologies, wireless technologies or QR codes.

Features Of Internet Of Things (IOT)

Some most popular characteristics of Internet of things are:

- i. **Intelligence:** IoT comes with the combination of algorithms and computation, software & hardware that makes it smart. Ambient intelligence in IoT enhances its capabilities which facilitate the things to respond in an intelligent way to a particular situation and supports them in carrying out specific tasks. In spite of all the popularity of smart technologies, intelligence in IoT is only concerned as means of interaction between devices, while user and device interaction is achieved by standard input methods and graphical user interface [8]. Together algorithms and compute (i.e. software & hardware) provide the “intelligent spark” that makes a product experience smart. Consider Misfit Shine, a fitness tracker, compared to Nest’s intelligent thermostat. The Shine experience distributes compute tasks between a smartphone and the cloud. The Nest thermostat has more compute horsepower for the AI that make them smart.
- ii. **Connectivity :** Connectivity empowers Internet of Things by bringing together everyday objects. Connectivity of these objects is pivotal because simple object level interactions contribute towards collective intelligence in IoT network. It enables network accessibility and compatibility in the things. With this connectivity, new market opportunities for Internet of things can be created by the networking of smart things and applications. Connectivity in the IoT is more

than slapping on a WiFi module and calling it a day. Connectivity enables network accessibility and compatibility.

- iii. **Dynamic Nature :** The primary activity of Internet of Things is to collect data from its environment, this is achieved with the dynamic changes that take place around the devices. The state of these devices change dynamically, example sleeping and waking up, connected and/or disconnected as well as the context of devices including temperature, location and speed. In addition to the state of the device, the number of devices also changes dynamically with a person, place and time. The state of devices change dynamically, e.g., sleeping and waking up, connected and/or disconnected as well as the context of devices including location and speed.
- iv. **Enormous scale:** The number of devices that need to be managed and that communicate with each other will be much larger than the devices connected to the current Internet. The management of data generated from these devices and their interpretation for application purposes becomes more critical. Gartner (2015) confirms the enormous scale of IoT in the estimated report where it stated that 5.5 million new things will get connected every day and 6.4 billion connected things will be in use worldwide in 2016, which is up by 30 percent from 2015. The report also forecasts that the number of connected devices will reach 20.8 billion by 2020.
- v. **Sensing:** IoT wouldn’t be possible without sensors which will detect or measure any changes in the environment to generate data that can report on their status or even interact with the environment. Sensing technologies provide the means to create capabilities that reflect a true awareness of the physical world and the people in it. The sensing information is simply the analogue input from the physical world, but it can provide the rich understanding of our complex world. We tend to take for granted our senses and ability to understand the physical world and people around us. Sensing technologies provide us with the means to create experiences that reflect a true awareness of the physical world and the people in it. This is simply the analog input from the physical world, but it can provide rich understanding of our complex world.
- vi. **Heterogeneity:** Heterogeneity in Internet of Things as one of the key characteristics. Devices in IoT are based on different hardware platforms and networks and can interact with other devices

or service platforms through different networks. IoT architecture should support direct network connectivity between heterogeneous networks.

- vii. Security: IoT devices are naturally vulnerable to security threats. As we gain efficiencies, novel experiences, and other benefits from the IoT, it would be a mistake to forget about security concerns associated with it. There is a high level of transparency and privacy issues with IoT. It is important to secure the endpoints, the networks, and the data that is transferred across all of it means creating a security paradigm

Applications Of Internet Of Things (IOT)

Some useful applications of Internet of Things (IOT) are:

- **Connected Health-** IoT has various applications in healthcare, which are from remote monitoring equipment to advance & smart sensors to equipment integration. It has the potential to improve how physicians deliver care and also keep patients safe and healthy.
- **Smart City-IoT** will solve major problems faced by the people living in cities like pollution, traffic congestion and shortage of energy supplies etc. Products like cellular communication enabled Smart Belly trash will send alerts to municipal services when a bin needs to be emptied
- **Connected Cars** - Most large auto makers as well as some brave startups are working on connected car solutions. Major brands like Tesla, BMW, Apple, and Google are working on bringing the next revolution in automobiles
- **Smart Retail-** Retailers have started adopting IoT solutions and using IoT embedded systems across a number of applications that improve store operations such as increasing purchases, reducing theft, enabling inventory management, and enhancing the consumer's shopping experience. Through IoT physical retailers can compete against online challengers more strongly.

Smart Farming -The potential of IoT in the retail sector is enormous. IoT provides an opportunity to retailers to connect with the customers to enhance the in-store experience. Smartphones will be the way for retailers to remain connected with their consumers even out of store. Interacting through Smartphones and using Beacon technology can help retailers serve their consumers better.

Security Challenges Facing IOT

IoT security is the safeguard of Internet of Things devices from attack. While many business owners are aware that they need to protect computers and phones with antivirus, the security risks related to IoT devices are less well known and their protection is too often neglected. Internet of Things devices are everywhere. From cars and fridges to monitoring devices on assembly lines, objects around us are increasingly being connected to the internet. The speed at which the IoT market is growing is staggering - Juniper research estimates that the number of IoT sensors and devices is set to exceed 50 billion by 2022. While consumer IoT devices allow lifestyle benefits, businesses are quickly adopting IoT devices due to high potential for savings. For example, after Harley-Davidson turned their York, Pennsylvania plant to a 'smart factory' using IoT devices in every step of the production process, they reduced costs by 7% and increased net margin by 19%. Data Integrity Billions of devices come under the umbrella of an interlinked ecosystem that is connected through IoT. Manipulating even a single data point will result in manipulation of the entire data which is exchanged and shared back and forth from the sensor to the main server. Decentralized distributed ledger and digital signatures should be implemented in order to ensure integrity Encryption Capabilities Data encryption and decryption is a continuous process. The IoT network's sensors still lack the capability to process. Privacy Issues IoT is all about the exchange of data among various platforms, devices, and consumers. The smart devices gather data for a number of reasons, like, improving efficiency and experience, decision making, providing better service, etc.; thus, the end point of data shall be completely secured and safeguarded. Common Framework There is an absence of a common framework and so all the manufacturers have to manage the security and retain the privacy on their own. Once a common standardized framework is implemented, the individual efforts will then collectively be utilized in an expandable manner and so reusability of code can be achieved

Conclusion

The IoT framework is helpless to attacks at each layer. Therefore, there are many security threats and requirements that need to be dispatched. Current state of research in IoT is mainly concentrated on confirmation and access control protocols, but with the rapid growth of technology it is essential to combine new networking protocols like IPv6 and 5G to achieve the progressive mash

up of IoT topology The main importance of this chapter was to highlight major security issues of IoT particularly, focusing the security attacks and their countermeasures. Due to lack of security mechanism in IoT devices, many IoT devices become soft targets and even this is not in the victim's knowledge of being infected. In this chapter, the security requirements are discussed such as confidentiality, integrity, and authentication, etc

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Agriculture and Rural Development: Need of India

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Abstract: -

Indian economy is the first in highest population in the world. India across China in growing population. But various burning issues were stand in front of Indian economy. Such as unemployment, poverty, hangers, regional imbalance inequality, rural development, agriculture development etc. When we finish this problem then only India became the superpower nation in the world. Only younger population does not sufficient to the need of became superpower in the world. Most of the population depends upon agriculture and the related activities for employment and to satisfy the daily needs of family. But this sector gone from various threats from last few years. Various farmers make suicide due to less income from agriculture or no income from agriculture. Most of the land in India depends upon Manson for water. No fix source of water in India for agriculture. Due to this reason rural development does not achieve its target of development. Agriculture and rural development these two things depend upon each other. Without agriculture development rural development does not possible.

Key Words: - Agriculture, Rural Development, Backbone .

Introduction

Rural development and agriculture were the two sides of one coin. Agriculture is the life blood and backbone of the Indian economy. It is the largest and biggest sector for giving employment to the people. Employing 58% of the population with only 4% of the world's water resources and 2.4% of the world's land. Rural development is dependent upon the agricultural development because most of the India's population live in rural areas. India constitutes 6,40,000 villages and 90,93,54,771 people live in villages in India. Near about 70% population live in villages. So rural development is necessary rural development means the process of improving the quality of life and economic well-being of people living in rural area. In olden days India is called 'Sonye Ki chidiya' because rural people also satisfied their daily needs in the villages also. Villages was self-sufficient and self-reliant 'Bara balutedari' system was there. In this system the people in villages work which in he was expert they give services to others and get services from others. There was no money for medium of exchange. But after the entry of the British they attack on this system. They purchase the raw material from India at very low cost, send it to their nation and finished product were made in their factories, again they brought those goods in India for selling at higher rates. They make loot of Indian People and rule on India near about 150 years. After independence agriculture and rural development these two problems were exist in front of new government. Making 5 Year plans and other way government try to over come these problems. 76 years gone after independence, but these

problems do not finish. So, agriculture development is necessary for rural development.

Objectives of the Study

1. To know what is agriculture development.
2. To know what is rural development.
3. To know the relation between above two concepts.

Hypothesis of the study: -

1. **Agriculture development is going on at a very very slow.**
2. **Rural development is depend upon agriculture development.**
3. **There is a strong relation between these two concepts.**

Research Methodology:-

For writing this paper secondary sources of data were used. In this books, Magazines, newspapers, Journals etc.

Rural development is the life blood and backbone of Indian economy because after 76 years of independence also India's most of the population lives in rural area or villages and their main source of employment is agriculture land and related businesses. Three quarters of the world's poor live in rural area and most earn their living from farming. The agriculture sector is central pillar of the Indian economy, employing 60% of the nation's workforce and contributing to about 17% of the GDP.

Rural development is a process of change by which the efforts of the people themselves are united, those of government authorities to improve their economic, social and cultural conditions of the communities into the life of the nation and to enable them to contribute fully to national programme. Rural development is a process of bringing change among rural community from the traditional way to living to progressive way of

living. It is also express as a movement for progress. Agriculture is the important sector of Indian economy which determines the growth and sustainability India is first in the world for growing population and also first for the production of milk, pulses, jute and jute like fibres, second in rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton production and is a leading producer of spices and plantation crops as well as livestock fisheries and poultry.

Production of the both food for rural and urban population and cash crops for the export market to earn foreign currencies. Agriculture work most of the agricultural areas located in the rural areas. So, it is identified that rural development is also agriculture development natural resources and human resources in rural areas have a great potential to be developed in the agriculture sector.

The basic objectives of rural development is to improving the quality of life of rural people, to improve the infrastructure of rural areas, to reduce unemployment, poverty, hunger, inequality by providing the opportunities for employment, to provide the clean water, education facilities, electricity, healthcare facilities, proper communication. Rural people migrate from rural to urban area for employment, so urban area developed but rural area become desert.

The agriculture sector India remains the backbone of the it's society employee 58% of the population with only 4% of the world's water resources and 2.4% of the world's land India supports 17.8% of the world's population and 15% of the livestock population. In spite of these important this sector has gone from a critical situation, various forms make suicide due to debt, less income, more expenses, no fix guaranty income from agriculture, increased family expenses for education of children, marriage of girl, sickness of family member etc.

India's Agriculture Income and Share in GDP

Sr. No	Year	GDP Share in (%)
1	1950-51	59%
2	2003-04	20.0%
3	2019-20	17.8%
4	2020-21	20.1%
5	2021-22	19 %
6	2022-23	18.3 %

Source: Financial Inclusion and rural development, Shantanu Saurabh.

In 1950-51 agriculture and related activity had a share of 59% of the country's total GDP in the financial year, in the 2020-21 what's 20.1% it was 19% in 2021-22 and it again come down to 18.3% in 2022-23. This share was decreased due to

various problem faced by Indian farmers. Such as low rainfall or no rainfall, incenses prices fertilizers and pesticides, migration of workers from rural to urban area, pricing policy of government for agricultural goods, selling policy, very very less resource of water increased wages of laborers, various diseases on crops etc. At the time of independence around 83% of Indian population were living in rural areas nowadays also 70% a population live in rural area and their daily needs satisfy on agriculture allied sectors. Gandhiji that time said that for understanding true India go to rural area or villages. Rural development and agriculture development are the two rings of one chain. Without once development another development is not possible from the very beginning of planning era the focus of rural development is continue to till date and remain in future and because the target is now a days also not achieved. Strategically the focus of our planning was to improve the economic, social of the under privileged sections of rural society thus economic growth with social justice became the main objective of the planning process under ruler development it begin with and emphasis of agriculture production.

According to Acharya Vinoba Bhave and Jai Prakash Narayan understanding village is a central point rural development plants were made Pandit Nehru's perceptions was that rural social and urban society development programmed were not balanced till all India's economic, social development will not be possible Dr.APJ Abdul kalam was said that for becoming a development nation the development of rural areas will be taken into consideration. In short as compare to urban area more population live in rural area, the development of it will not be done then nations (India's) development will not be possible from 1980 district rural development agency (DRDA) and district Planning Committee were was work for rural development from independence to till date government tried to development the agriculture sector green revolution in 1960 is one of the important step in agriculture development, increasing the crop yield with hybrid seeds was the main objective of the green revolution. After that also governments makes various plan's but now a day's also the target of agriculture development will not be achieved.

Conclusion

We can say that without rural development India's development will not be possible and without agriculture development rural development will not be possible so we can say that these two

terms are the two side of a coin or these two concepts are the rings of a one chain. So rural development depends upon agriculture development and India's development depends upon rural development.

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Human Resource Management in Co-operative Banks in India

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Abstract: -

In the today's competitive environment, employees of any organization are the main factor for the success of the firm. In many sectors like education, health, media, insurance, banking etc. human resource plays a very important role in successful delivery of the services. Most of the service sector insists on absorbing human resource with specific qualification, required skills and basic hands on training. However, Cooperative banks in India do not have these advantages due to their existing function and structure. These banks in India have been operating for many years. They are becoming increasingly complex business systems, requiring all the tools and techniques of modern management for their success but one of the hurdles in their development is lack of trained manpower to manage transactions on efficient business lines. Recruitment, training, retention of the existing workforce and fostering a culture of continuous learning remain the biggest challenges facing co-operative banks today. Because, Human Resource Development (HRD) is an important factor that defines the characteristics of a successful banking organization; Cooperatives need to develop their lay members, board members and most importantly their staff

Key words: - Cooperative banks, Human Resources Management.

Research Methodology: - This Paper Is Based On Secondary Data Which Is Collected From Various Books, Journals, News Papers, Websites Etc.

Introduction:-

In the industry of banking, Co-operative sector is the only sector which has adopted the socialist pattern in Indian economy. Co-operative banks are value-based, member-owned and democratically controlled institutions located in urban, semi-urban and most importantly rural areas, which serve the needy people with financial assistance without any barrier. The performance of any co-operative bank depends on profitability. But the profitability depends on the employees working in the organization and certainly the performance of the employees is affected by the formulation and adoption of appropriate human resource development policies. These policies of cooperative banks are generally decided by the respective senior management officers of the banks. But, in the process, neither the management nor the government realized the important role of employees in the development of these co-operative banks. Co-operative banks also have to develop general members, board members and employees for their development. Apart from this, the cooperative banks will also have to consider the potential members who will make their debut in the cooperative sector in the future. In fact the job of HRD is more difficult in a co-operative organization than in a commercial bank where the main focus of development is mainly confined to the employees.

Need of HRM:

Internationally, technology driven channels like ATMs, net banking and mobile banking have drastically reduced the number of walk-in

customers at bank branches. However, Indian bank customers still find it difficult to use these technology-based channels and are more comfortable with traditional over-the-counter banking in person to ensure error-free and risk-free banking services. While struggling to provide good, fast as well as efficient service at the bank counter, employees also have to take care of various regulatory norms to minimize operational risks. This clearly highlights that the employees of co-operative banks play an important role in managing not only the customer's 'transaction' but also future long-term relationships.

Human Resource Policies:-

While it may be true that all co-operative banks have their own policies, the manner in which they are documented and presented to employees varies widely. There are no specific rules as to how principles and practices should be documented and implemented by cooperative banks, other than those expressly required by law. Therefore the nature and tone of the policies and procedures of co-operative banks lies entirely in their activities. This discernment presents both a challenge and an opportunity for the cooperative. One of the challenges is the almost infinite number of options on how to define, enforce and communicate the rules of operation of banks. A set of policies suitable and appropriate for the opportunity will lay the foundation for meeting the business objectives of the cooperative banks, providing the necessary guidance to the employees and achieving the desired organizational culture. In fact many co-

operative banks do not have any specific written documentation of HR policies.

In fact, the rules and bye-laws of the Co-operative Bank were framed to protect the co-operative bank from certain evil practices prevalent in the market and to protect it from vested interests. This hampers the autonomous growth of these banking institutions. An important factor to be noted is that although cooperative banks come under the financial discipline of the RBI, NABARD and the apex bank, they have autonomy in terms of personnel. Co-operative banks should be committed to Equal Employment Opportunity (EEO) policies that provide a healthy work environment, which are free from any form of discrimination and harassment.

Recruitment and Selection:-

After human resource planning is done, the next step is to get the required staff to keep the organization functioning.

There are following three types of recruitment in co-operative banks

- a) By direct recruitment
- b) On deputation by the Government or by taking individuals from the sister co-operative society management to employ women in their organisations.
- c) By promotion

The main source of recruitment is newspaper advertisement but in co-operative society, information regarding vacancies is conveyed through circular system to the State Employment Office which receives restricted distribution. Thus, in the absence of wide publicity of vacancies, jobs in co-operative banks are easily accessible to persons known to top and middle executives, internal promotion may be a good option if quality is not sacrificed. The only way to attract professionals would be when compensation needs to be internally consistent and externally competitive. It has been observed that the number of women in co-operative banks is very low both at clerk and officer levels.

Training and Development:-

Designing and implementing an effective training and development system is a very important challenge because all the costs are borne now, while all the benefits accrue in the future in terms of the complexity and magnitude of banking services, especially the work undertaken by cooperative banks for socio-economic development. In urban, semi-urban and rural areas, the need for training is increasing. Recognizing the importance of training, many cooperative training institutes established at various levels are imparting

training to the employees of cooperative banks. The results of training for any type of organization include increased employee productivity, increased morale, reduced supervision, and organizational stability and flexibility. Poor quality training or focusing on the wrong development area will be a complete waste of time and money. It leaves the organization in no better position than if there had been no training at all. Cooperative banks provide training for many reasons:

1. To teach the employees perform in their initial job assignment.
2. To improve the current performance of employees who may not be working as effectively as desired
3. To prepare employees for future promotions.

Performance Appraisal:-

Performance Appraisal is a systematic approach to track individual performance against the target objectives of the Co-operative Bank and to identify strengths and opportunities for improvement. This includes giving an annual performance review and much more. Periodic formal reviews may be part of the performance appraisal process, but good performance management is an ongoing process, a once-a-year event. In almost all co-operative banks, the performance of the probationer is informally monitored and evaluated. Daily diaries of clerical staff, entries in service registers and periodic employee performance reviews are the methods used for evaluation of probationers. However, the implementation of appraisal for permanent employees is usually not taken seriously.

Promotion:-

As per the Co-operative Society Rules enforced by the Government, provision is made for promotion on the basis of merit and ability of the employees, according to which the seniority of the employees is considered only when the merit and ability are approximately equal. Employee recognition is one of the most important tools for motivating and enhancing performance. No organization can attract and retain key people by spending money on them because employees want both salary and appreciation for their work.

Conclusion:-

Compared to all other management functions, human resource management in co-operative banks is more sensitive, individualized and context dependent and cannot usually be managed by a set of predefined techniques. In fact, employee satisfaction is basically difficult to achieve. Thus, employee satisfaction is the first step

to customer satisfaction. An effective organization depends on appropriate human resource policies and practices for recruiting, developing, selecting, evaluating, compensating, and placing, promoting, or transferring employees. Based on careful analysis of business needs, cooperative banks should prioritize their choices. Successful HRM requires banks to practice sound management philosophies that respect human dignity and diversity and are committed to employee growth, believe in the value of employee contributions, and

share wealth fairly and equitably in decision making.

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Critical Evaluation - The concept of Consumer Behaviour

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Abstract:

The Consumer is the centre point of every market. The field of consumer behaviour studies deals with the how an individuals, organizations & groups select, purchase, use and dispose off products and services to satisfy their wants and desires. Mainly customer is the pivot around which the whole market industry revolves nowadays. Hence there is need to study the consumer behaviour for every marketer, industrialist, producer to product and launch their product in market. Marketer aware about the buyer behaviour any different circumstances. The study of consumer behaviour takes us to the roots of why a consumer has positive or negative predisposition. For marketer the knowledge of consumer behaviour is as much necessary as consumers are necessary for marketing of product/service. This knowledge of consumer behaviour is necessary for formulation and implementation for marketing strategies. Every marketer must know about the needs and wants of the consumers and their purchasing power to develop the product. As behaviour is the subject matter of psychology. The students, scholars and business practitioners all over the world keep on researching about the actions and reactions of consumers in different circumstances of market. The impact of price and similar factors on the buying behaviour of consumers all these topics are important towards scholars and researchers. In this article we will discuss about the various aspect of the consumer behaviour.

Keywords: Consumer, Consumer Behaviour, Psychological Model, Factors of Consumer behaviour

Introduction:

Behaviour means the way that you act or behave with the other human being. Every person has their separate psychology. Consumer means any person or group who is the ultimate or final user of a product or service. When we added these two words Consumer & Behaviour we will get the new concept i.e. Consumer Behaviour. The overall market is revolves around the concept of Consumer. We are aware about the concept i.e. Consumer is the king of Market. Every vendor of the market must aware about how consumer thinks, how consumer behave, how consumer act & react in a different circumstances in the market. Consumer behaviour is the study which refers to the all behaviours of consumers as these are the paramount importance to consumers. Generally, each and every marketer is interested in knowing how consumer obtain the thing, consumer the thing and dispose the various categories of products. The consumer is consider many factors while purchasing any product like price of the product, quality, quantity, durability, likes-dislikes, preference, taste, habits etc. and so on. These factors analysis helpful to the marketers.

The Kotler & Armstrong defined Consumer Behaviour a, "Consumer buying behaviour refers to the buying behaviour of final consumers - individual households who buy goods and services for personal consumption." This definition clearly stated that the consumer behaviour means the behaviour of the ultimate consumer of the product or service. Every individual is separate identity in the world; no one is similar in this world. With

reference to this concept every consumer has their separate opinions and reviews about the product and services. Feedback of consumer is different for different user. Consumer behaviour is defined as "activities of people take over when obtaining, consuming and disposing of product or services."

Statement of the Problem:

As a matter of fact, consumer is the king of market. So that, he is just like a voter in the democracy. Consumer's selection of product & services determines the fate of the product/services. Therefore in order to attract him more and more, the marketer should know their customers behaviour. So that they could treat consumer in the way they like to be treated. The study of consumer behaviour is very important for determining the form, price, style, packaging, brand, trademark etc. of the product. Hence the critical evaluation of the behaviour of the consumer should be analyzed. The study of consumer behaviour helps towards getting the answers of the some questions like - who are the customers. What they buy? Where do they buy? How do they buy? Why? When?

Review of Literature:

Subadra S, Murugesan K M & Ganapathi R (2010) studied in his paper titled with "Consumer perceptions & Behavior" and stated that consumer behavior consists of all human behavior that goes in making purchasing decisions of various product/service. An understanding of the consumer behavior enables a marketer to take correct marketing decisions which are compatible with its consumer wants and desires.

Ahmad Hosaini & Dr. Kuldeep Chand Rojhe, (2020) state in his paper that, "Consumer behaviour caters a clear essential for recognition and knowing consumer requirements. Hence the overall analysis of consumer behaviour for any product is important to the marketer."

Bhattacharya S, Mitra S (2010) studied the impact of brand on consumer behavior i.e. Brand name, Brand loyalty & symbolic meaning. It was also stated that the less the monthly income of the family the more the impact of brand on consumer behavior

Objectives of Study:

- To examine the overall concept of consumer behaviour in detail
- To study the psychology of consumer
- To know the process of buying behaviour of consumer
- To study the psychological models of the consumers behaviour
- To study the various factors affecting on the behaviour of the consumer.

Scope & Limitation of the Study:

The consumer behaviour is the wider concept. The functional scope of this study is, understanding the consumer behaviour is crucial for business to create effective marketing strategies

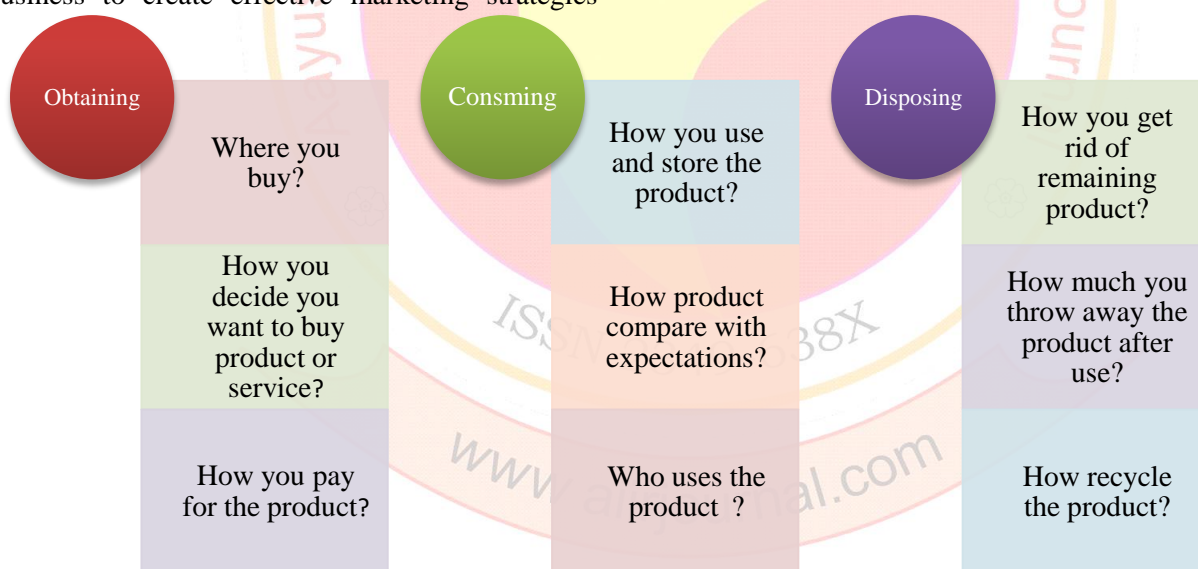
that can affect the consumer buying behaviour of product/service. The limitation is, it is a psychological concept. No one can accurately examine the behaviour of consumer. It is changeable according to the market situation of circumstances. Businesses only predict the behaviour of consumer. Consumer research can be conducted along with a very limited group of people. Hence the research conclusion conducted on these limited people cannot be applied to the general public in the same way and consumer research requires a lot of time these are the limitations.

Research Methodology:

This research paper is descriptive in nature. The research paper is based on Secondary Data. Secondary data is collected through various online websites, books, magazines, newspapers, Journals. The conceptual facts are related to consumer behaviour are included in this paper.

Concept of Consumer Behaviour:

Consumer behaviour is the study of consumers and the processes which is used to choose the product, consumer the product and dispose the product and services including consumers' emotional, mental and behavioral responses.



[Source: Page No. 1 (Fig. 1.1) - Consumer Behaviour - Nair, Banerjee, and Agarwal]

Obtaining is related with the searching for information regarding to the product characteristics & choices, finding alternative products or brand and purchasing. Consumer behaviour focuses on this type of behaviour including how consumers buy the product or service - Do the shop specialty stores, shopping on internet or shopping at malls?

How consumers pay for the product or service - by using cash or credit card? Purchasing products for gift or for themselves, how brand influence their product choices.

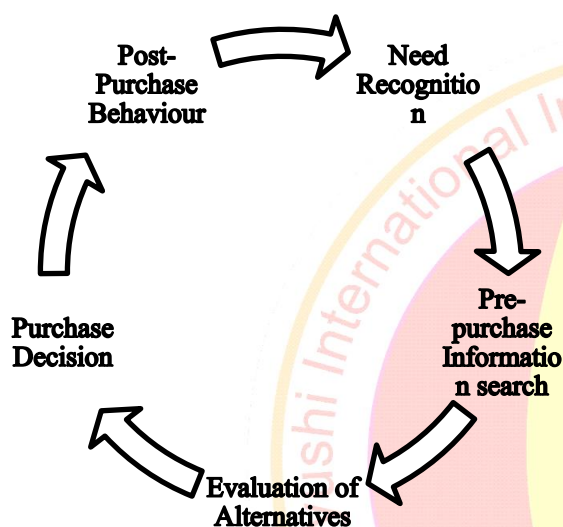
Consuming is the concept which is related with how, where, when and under which & what circumstances consumers use the product or service. The decisions about whether the consumers use products at home or at the office these issues

included in the consuming concept. Is the overall experience of the product is pleasurable or not?

Disposing refers how consumers get rid of products and packaging. It include the examination of consumer behaviour from an ecological standpoint - how consumer dispose the product packaging, how to resell the product?

Process of Buying Behaviour of Consumers:

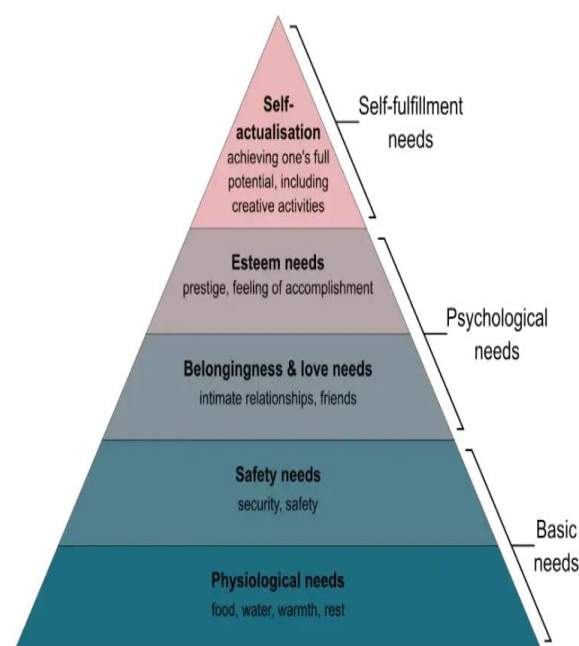
The most important and basic requirement for the marketer is to understand how consumers make their choices. Every buying behaviour involves an element of active reasoning. It includes the following steps:



[Consumer Buying Decision Process]

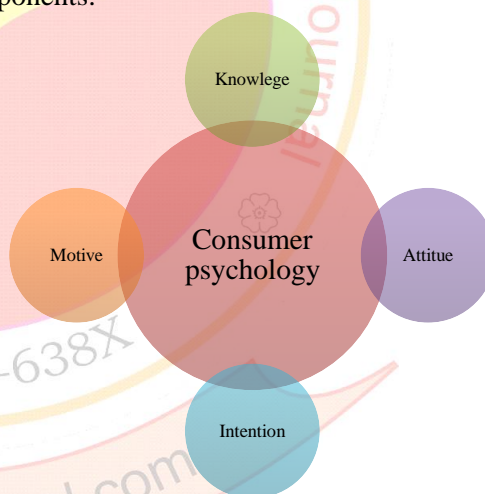
Psychological Model of Consumer Behaviour

There are many models of the consumer behaviour among them one is very much impacted on the consumer behaviour i.e. psychological model of the consumer behaviour. This model is based on the theory of Hierarchy of need which is given by renowned psychologist Maslow. In this model the human needs are categorized into Psychological, Safety, Love and belonging, Ego and Self-Actualization needs. As per this model, the needs of the consumer affect or influence his behaviour. The needs & wants of the consumer never get over and arise one after another. Every consumer keeps his basic needs at first priority for satisfying them and then move on to other need. This satisfying the need of consumer cycle continues until the point of time when he reached the top level



[Source: <https://commercemates.com/consumer-behaviour-models>]

Psychology of Consumers: For making a grand success of marketing program it is necessary for every marketer to study the consumer behaviour so that he would know the purchase intention, attitudes, perception and desires/need of customers. Consumer psychology has the following 4 components:



- **Knowledge:** The information which is related with product or service given to the customer is necessary to develop the consumer psychology. For giving knowledge of the product, promotional activities play an important role.
- **Attitude:** It is state of mind of feeling. It induces a predisposition to behave in some way. Attitude of every consumer is playing a vital role in the buying decision process.
- **Intention:** It means desire to do something. When marketer knows the intention of consumers, the marketing plans and policies

can be formulated and implanted with the help of production co-ordination.

- **Motive:** Motive is an integral state which directs the behaviour of consumer. It is also called as urge. It means consumers behaviours is directed towards a particular cause.

Factors affecting Consumer Psychology in Marketing:

Most of the successful marketers are aware about the various affected factors of the consumer behaviour like social, cultural, environmental etc. Every marketer also has specific knowledge of consumer engagement with the particular brand of the product. This will be beneficial to craft the effective campaigns which are required by target consumers. Psychological factors like emotions, motivations, perceptions and desires of the consumer are very much important to consider when making a plan of marketing campaigns because these factors drive the consumer behaviour. The behaviour of the consumer may changes according to the psychological fact. This is simply says that psychological factors may cause customer to buy the products or neglect the products and connect with the competitor brand partner. For instance, suppose the consumers surrounding environment is totally affected by the person who think about the climate change. In this situation the consumer only choose to purchase the product brands which are eco-friendly and environmentally beneficial to the consumer.

- Personal Cultural
- Social Psychological

Consumer buying process:

A very crucial area for marketing to business is to determine the decision maker or the real consumer in the buying decision of product or services. For purchasing a four wheeler or two wheeler etc men take the decision whereas for purchasing kitchen-wares, house furnishing, baby products etc. buying decision taken by women. As similar for buying a new house or going for vacation holidays generally the decisions are taken by majority members in the family. The businessman must find out the characteristics of such person who play a vital role in influencing the decision to make a purchase. Following are the different participants involved in any consumer buying process:



Summing Up:

Consumer behaviour being a branch of management science. It is a part of behavioral

science. It is positive science in nature. It provides information about the relationship between various influences and effects. Consumer behaviour study is like studying medicine. As the study of medicine involves using the knowledge of different subject like biology, chemistry, physics, engineering and other disciplines. Like the same, consumer behaviour study involves the relevant portions of economics, psychology, sociology, anthropology, statistics and other disciplines. In order to understand the consumer mind the psychological theories and the application of psychological tools and techniques are very must require.

Suggestions:

It is suggest that, the businessman should reinforce the positive thought & beliefs related to products and services among the consumers. It is also suggested to Marketers that, shaping the emerging habits with the new offerings towards customers. Analyze the consumer beliefs; it will help to understand the consumer psychology. Marketer must know about the needs and wants of the consumers and their purchasing power to develop the product. The various promotional schemes should be implanted by taking into consideration of consumers taste, preferences, their consumption habits, and their purchasing habit and so on.

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Chat GPT for Teaching, Learning And Research

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DCCL

Abstract

The introduction of artificial intelligence in education has brought this From the use of information and communication technology as a tool for Improve teaching and learning. Expert Systems and Machine Intelligence Providing personalized service could revolutionize education Learning experiences, automating repetitive tasks, empowering teachers Focus on more important tasks, such as: B. Providing one-on-one care student. Used in many educational applications including adaptive ones A learning system that can change the complexity of the content depending on the situation. student performance. This article provides an overview of the educational literature Meaning of artificial intelligence. By evaluating some ChatGPT This study evaluates the potential and limitations of Open AI. ChatGPT for teaching, learning and research. that's what the results showed ChatGPT also provides fast and instant responses to search queries As automatic text generation similar to conversational responses.

Introduction

Any person imparts knowledge or skills to another person, the activity .It is often referred to as teaching. Sharing can refer to sharing experiences Or knowledge transfer. B. Lecture. The lesson applies to both art and science. As an art, it highlights the invention and artistry of the teacher Ability to create meaningful classroom scenarios for students to learn. As a science, it reveals something logical, mechanical, or procedural. Steps to ensure you reach your goals. Different educators have different perspectives on the concept of education. "Teaching is a close interaction between more mature and less mature personalities. mature with the intention of furthering the formation of the latter Teaching is learning, selling is like shopping (Wallfisch & Wallfisch, 1979). Education is the organization and management of a scenario. a gap or obstacle that a person is striving to overcomehe learns it Teaching is a series of actions should bring learning. Teaching is a form of influence intended to influencebehavior of others". Smith extended the definition1963, agent, teaching to include a system of actions with an end A goal and situation involving two sets of factors: related to Agents have no control (class size, student characteristics, physical facilities, etc.) And what he can control (teaching, technique, etc.) Educational psychologists have defined learning in different ways and in parts. various meanings. It was defined as a quantitative increase in knowledge. Involves remembering information, skills, and procedures Remember and use it as needed. seen to be meaningful or abstract the meaning and tie the thematic parts together And to the real world, to interpreting, grasping, and understanding reality Changing the world by reinterpreting information (Behlol & Dad, 2010). learning is Defined as a change in behavior induced by an experience. with

this concept Learning is viewed as the ability to map experience to action. to say the least In other words, learning is defined as the effect of experience on behavior (Houwe, Barnes-Holmes & Moors, 2013). Learning can be defined as:

Lasting change brought about by teachers through student tactics Improving specific skills, changing attitudes, comprehension, etc. Certain scientific laws that operate in the learning environment (Muna & Callum, 2021).

Abbreviation for "Information and Communication Technology" "ICT" is the utilization of various technologies in management. Processing and transmission of information and intermediation Communication (Ratheeswari, 2018). Combining a wide range of tools, Technologies such as personal computers, the Internet, and mobile phones Other software packages.

Information and communication technology (ICT) plays an important role in many fields. Aspects of our lives today such as education, commerce and healthcare entertainment. Allows us to collect, store and share information

In addition to enabling real-time conversations with other users, conversations with other users (Opara,2022). Information and communication technology also enables enterprises Automate and improve activities to perform more effectively and efficiently Communication and access to a wide range of information means. ICT is the driving force behind many technological developments The breakthroughs that led to the construction of the modern world and their continue to play an important role in how we live, work and interact each other. According to Balanskat, Blamire, Kefala (2006), although teachers seem to be aware of this The importance of ICT in schools continues to face challenges. Integrate these technologies into teaching and learning. According to John McCarthy, the inventor of artificial

intelligence, it is Science and technology for building intelligent machines, especially smart machines Computer Program” (Tutorial Point, 2020). artificial intelligence is the way Think by programming a computer, computer-controlled robot, or software As intelligent as intelligent people. AI is understanding how the human brain works and how it learns,Decide, act and use when trying to solve a problem We will use the results of this research to build intelligent software and systems. **Of The purpose of AI is to:**

1. Create an expert system.learn, show, explain,Advise users.

2. Build a machine with human intelligence.

Creating a system to Understand, think, learn and act like humans.

Artificial intelligence, often called machine intelligence, is intelligence Indicated by machines rather than by natural intelligence Humans and other animals (Saleh, 2019). You should perform tasks such as:

Speech recognition, learning, planning, problem solving. Artificial intelligence is an emerging technology that has begun to change Educational tools and organization. Education is an area where trainers play an active role Must be present to provide the best possible educational practice. The introduction of artificial intelligence is changing the role of teachers. This is very important. in the education system. To measure a specific person's pace In other countries, AI primarily uses advanced analytics, deep learning, and machines. learning. As AI solutions continue to advance, AI solutions can help identify Gap in teaching and learning and improvement in educational literacy. AI can Offers efficiency, personalized and simplified activities and provides instructors Time and flexibility to understand and make adjustments. Characteristics unique to humans that computers cannot reproduce. that is with a robot Professor (Kengham, 2020). AI supports each person individually We offer courses based on interest and ability assessment. Verma et al., (2019) reported that AI may never be able to do this.It completely replaces the human taxonomy and comes pretty close. teachers are allowed We already have automated grading for nearly all types of multiple-choice and fill-in-the-blank tests, and automated grading of student assignments may soon follow.

Today, essay grading software is still in its infancy and not up to date. But in college they grade major lecture assignments and exams Even sharing between TAs can be time consuming. even in the lower Grading Teachers often spend a significant amount of time grading. Time spent

interacting with students,Prepare for classes or work on professional development.

Chat GPT

What is “CHATGPT”?

A Chabot could be a program that employments client input to reenact human-like intuitive. The ChatGPT Chatbot was made by San Francisco-based OpenAI. On November 30, 2022; the Chatbot was made available for gratis open testing. Nowadays, we'll see at the GPT and endeavor to figure out what it all implies (Atuhaire, 2022). The Diary of India characterizes ChatGPT as a 'conversational' AI that would reply questions like a human—or so the guarantee and presumption goes. ChatGPT is an progressed Chatbot based on OpenAI's GPT innovation. It is able of taking care of a wide assortment of textbased demands, extending from fundamental questions and answers to more complicated occupations (Lund, 2022). OpenAI's ChatGPT could be a enormous dialect demonstrate planned as a conversational specialist. ChatGPT, as a huge dialect demonstrate, is prepared on tremendous volumes of data (Azaria, 2022). For illustration, on the off chance that you would like help composing a message to a colleague, ChatGPT can rapidly create a significant and wellwritten letter. So also, in case you wish to address a issue with a colleague's efficiency but do not know what to say, ChatGPT can offer assistance. ChatGPT, with its colossal information stockrooms and productive engineering can indeed creator theses on topics such as the value of counterfeit insights. Usually ChatGPT's particular esteem for scholarly analysts.

How does it work?

"ChatGPT show utilizes Fortification Learning from Human Criticism (RLHF), utilizing the same approaches as InstructGPT, but with unobtrusive Varieties within the information gathering course of action," agreeing to OpenAI. We utilized administered fine-tuning to prepare an introductory demonstrate: human AI coaches advertised discoursed in which they played both sides—the client and an AI right hand. We given the trainers with model-written thoughts to help them in composing their answers. This unused discussion dataset was combined with the InstructGPT dataset, which was changed over into a exchange organize.

Literature Review

Azaria (2022) highlights a startling ChatGPT preference towards the utilization of digits in numbers. The analyst finds a solid

relationship between the recurrence of digits made by ChatGPT and people's favorite numbers, with the most common digit created by ChatGPT coordinating humans' most favored number. He moreover examines a few of the benefits of ChatGPT being planned as a conversational specialist, as well as a few of its downsides. Verma (2018) presents an outline of this innovation and the degree of counterfeit insights in numerous spaces, with a center on its utilization in instruction, as well as its meaning, looking methodologies, advancements, and future.

Chatgpt And Access To Information

ChatGPT is an AI-powered tool that can facilitate information access for students, finding information on Google can be a difficult task for many people, because Students must decide on an exact link to search for specific information. Let's compare the difference between Google and ChatGPT. Let us compare the distinction between google and ChatGPT. Google returns answers based on search results from specific websites. ChatGPT provides direct answers like chatting with a tutor. Google gives reactions based on look comes about from particular websites, ChatGPT gives a coordinate reaction, it is like Chatting with a mentor. Google look comes about are based on websites that the Google calculation has distinguished Search results are based on websites identified by the Google algorithm as significant to your look inquiry. In differentiate, Chatbots like ChatGPT can give coordinate reactions since they have been modified with a particular set of data and rules for creating reactions. ChatGPT may be a expansive dialect show prepared by OpenAI, so it can give reactions to a wide run of questions on a assortment of themes.

Prospects of Chatgpt

1. Fast and quick reaction: The AI dialect demonstrate can react rapidly and instantly to request and enlightening.
2. Moving forward inquire about AI dialect models like as ChatGPT may be a profitable asset for scholastics in a extend of spaces. Here are a few illustrations of how they may well be utilized to progress inquire about:
 - i. Characteristic language processing:
By recognizing designs and patterns within the dialect utilized, AI dialect models may help analysts in analyzing
 - ii. Data enrichment:
Researchers can use her AI language model to do this

Providing additional training data to machine learning models that can do this Help them improve their performance.

Data extension:

Researchers can use her AI language model to do this Providing additional training data to machine learning models that can do this

Help them improve their performance. and comprehending endless volumes of content information, such as social media postings or news articles..

iii Self-Determination/Active Learning:

ChatGPT supports self-paced learners, Those looking to learn a skill may get a direct answer.

Challenges

ChatGPT sometimes writes that it sounds plausible but inaccurate or illogical. answer. Fixing this problem is difficult because:

- 1) currently in existence
 - i. There is no authoritative source of information during RL training.
 - ii. train the model further
Have them discreetly reject questions that can be answered correctly. and
 - iii. supervised training, the ideal response misleads the model

Relies on what the model knows rather than what the human knows protesters know

- 2) Models are often very detailed and use specific terms such as:
It repeats that it is a language model trained with OpenAI. these issues Occurs due to training data bias (trainers prefer longer answers that seem more thorough) and the well-known over-optimization
- 3) If the user makes an unclear request, the model should provide Clarify your question. Instead, our existing models are often intended by the user. problem.
- 4) Efforts are made to ensure that the model rejects erroneous requests May react to harmful instructions and display bias behave. OpenAI uses moderation API to warn or ban Certain forms of dangerous goods, some of which I believe are incorrect Below are some Other issues to consider when using ChatGPT Negatives and positives for now.
 - 1) Results generated by ChatGPT are not quoted or referenced. So this increases the possibility of plagiarism
 - 2) Sometimes learners are presented with incorrect answers.

- 3) Limited results due to few answers to some questions asked.

work of the author/researcher/website and not by thin air.

Conclusion

This article made clear that the concepts of teaching and learning are important for life. The use of artificial intelligence. The process of teaching and learning with chatbots such as OpenAI ChatGPT model that provides immediate and direct responses to questions. Question asked. Despite the advantages ChatGPT offers, there must be drawbacks deal with and consider.

Suggestion

Proper research should be done and should not be relied upon completely.

Search due to the limited number of answers provided by ChatGPT. The engine is still reliable for research and shouldn't be exchange/exchange. Answers provided by ChatGPT. Literary works should be cited and properly referenced. Anything by ChatGPT is the

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Regional Language Education and Aatma Nirbhar Bharat Mission: A Study of Language Curriculum and Pedagogy in Schools and Colleges

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Abstract:

The diversity of languages, cultures, and identities in India is well-known. The Aatma Nirbhar Bharat Mission is a national initiative aimed at promoting self-reliance and economic independence. There has been much discussion in academic and policy circles about the role of regional languages in promoting this mission. This paper seeks to examine the role of language education in achieving these goals. The article analyzes the role of regional language education in promoting the Aatma Nirbhar Bharat Mission, which aims to make India self-reliant. The study focuses on language curriculum and pedagogy in schools and colleges, particularly in the context of regional languages. The authors argue that regional language education is essential for promoting cultural diversity and preserving linguistic heritage. It also plays a crucial role in promoting economic growth and ensuring social cohesion. The study examines the challenges faced by regional language education, including limited resources, inadequate teacher training, and a lack of standardization in curriculum and pedagogy. The authors suggest that addressing these challenges requires a multi-pronged approach, including greater investment in language education, enhanced teacher training, and the development of standardized curriculum and pedagogy. The study concludes that regional language education is critical for achieving the goals of the Aatma Nirbhar Bharat Mission and ensuring sustainable development in India.

Keywords: regional languages, language education, Aatma Nirbhar Bharat Mission, curriculum, pedagogy, self-reliance

Introduction:

In India, language plays a crucial role in cultural identity and social integration, with 22 officially recognized languages and over 1,600 dialects spoken across the country. While this diversity presents challenges, it also offers opportunities for national unity and economic development. The Aatma Nirbhar Bharat Mission, launched in May 2020, aims to promote economic self-reliance and reduce dependence on foreign goods and services to achieve a strong and prosperous India. The potential of regional languages in contributing to the mission's success has been widely discussed in academic and policy literature. This study seeks to investigate the impact of language education on fostering self-reliance and national pride in the context of the Aatma Nirbhar Bharat Mission.

Background:

In India, language plays a significant role in shaping personal and communal identities in a society with diverse cultures and languages. The Constitution of India acknowledges 22 languages as the official languages of the country, with Hindi and English serving as the official communication languages between the Union government and the states. Despite the recognition of numerous languages, maintaining linguistic diversity and preserving regional languages presents challenges. One obstacle is the dominance of English in education, commerce, and government, which impedes the promotion of regional languages and cultural diversity. The use of English as a medium

of instruction is considered a hindrance to this endeavor.

Through its various initiatives, including the promotion of regional languages, the Aatma Nirbhar Bharat Mission aims to tackle the issues of economic dependence and foster self-reliance. The mission acknowledges the significance of language diversity in promoting both national unity and self-reliance. Therefore, language education is considered a vital instrument in promoting linguistic diversity, cultural awareness, and a sense of national pride.

Review of Literature:

The development of human society, culture, and identity is significantly influenced by language. India, being a country with multiple languages, has an extensive linguistic landscape consisting of approximately 19,500 languages and dialects spoken across the nation, as per the *Census of India, 2011*. Along with English and Hindi, the Constitution of India has recognized 22 regional languages as official languages. It is essential to encourage and safeguard these regional languages to promote linguistic diversity, cultural pluralism, and national integration.

The promotion of self-reliance and economic growth through indigenous entrepreneurship, innovation, and production is the primary goal of the Aatma Nirbhar Bharat Mission, which was launched in 2020. Regional language education is an essential component of this initiative since it can enhance communication, knowledge sharing, and skill development among the masses. Additionally, regional language

education can contribute to the empowerment of marginalized communities, preservation of traditional knowledge, and promotion of cultural heritage. Numerous studies have examined the impact of regional language education on various aspects of student development, including academic achievement, language proficiency, cognitive abilities, socio-emotional skills, and identity formation. **Mohanty (2018)** conducted a study in Odisha, India, to investigate the effect of mother tongue education on secondary school students' academic performance. The results revealed that students who received instruction in their mother tongue outperformed those who studied in a second or third language in all subjects. The study also found that mother tongue education had a positive effect on students' motivation, interest, and self-confidence.

In a similar vein, the impact of regional language education on the academic performance and attitudes of primary school children in Odisha, **Padhi (2019)** examined India. The research indicated that students who received education in their native language outperformed those who were instructed in a second or third language across all subjects. Additionally, the study showed that instruction in regional languages positively influenced students' attitudes towards learning, including their enjoyment, engagement, and sense of belongingness.

The necessity of efficient language curriculum and pedagogy has been highlighted by various scholars to optimize the advantages of regional language education. **Prasad (2018)** proposed that the language curriculum should prioritize communicative language teaching, which includes the use of language in practical situations, interactive and collaborative learning, and student-centeredness. Likewise, **Panda and Patnaik (2020)** recommended that language pedagogy should concentrate on enhancing students' critical thinking, creativity, problem-solving, and cultural awareness, rather than memorization and reproduction by rote.

Choudhury and Talukdar (2017), propose that mother tongue based multilingual education can be an efficient approach to enhance the quality of education in India. Their research explores this topic in detail, providing insights and recommendations for educators and policymakers. In 2017 article published in the Journal of Educational Research and Practice, **Dutta and Mukherjee** discuss the importance of native language in the context of globalization. The article is titled "The Significance of the Mother Tongue in the Age of Globalization" and it examines the role that language plays in education and society.

Specifically, the authors explore how the use and preservation of native languages can help individuals maintain their cultural identities and promote linguistic diversity.

Regional language education is crucial for promoting language diversity, cultural pluralism, and national integration (**Singh, 2020**). However, there are several challenges associated with regional language education, such as a lack of resources, inadequate teacher training, and low status and prestige attached to regional languages (**Kumar, 2018**). The Aatma Nirbhar Bharat Mission aims to promote self-reliance and sustainability, and regional language education can play a significant role in achieving these goals (**Sahoo & Sahu, 2019**).

From the above we can say that, regional language education is an essential component of the Aatma Nirbhar Bharat Mission, as it can contribute to the socio-economic development, cultural diversity, and national unity of India. The literature suggests that regional language education can have a positive impact on various aspects of student development, but effective language curriculum and pedagogy are critical for realizing its full potential.

The literature review can also explore the impact of globalization, digitalization, and socio-economic factors on regional language education in the context of the Aatma Nirbhar Bharat Mission.

Methodology:

The study employs qualitative research techniques to investigate how language education contributes to the development of self-sufficiency and patriotism within the framework of the Aatma Nirbhar Bharat Mission. It involves conducting survey with language instructors, students, as well as administering surveys to collect information on language curriculum and pedagogy in academic institutions. Additionally, content analysis is utilized to scrutinize language textbooks and educational regulations concerning language education.

Objectives:

1. To explore the language curriculum and pedagogy in schools and colleges across different regions of India.
2. To assess the effectiveness of current language education practices in promoting self-reliance and national pride.
3. To identify the strengths and limitations of language education in the context of the Aatma Nirbhar Bharat Mission.
4. To provide recommendations for policymakers and educators to improve language education in promoting Aatma Nirbhar Bharat.

Hypothesis:

It is hypothesized by the study that language education in educational institutions like schools and colleges has a crucial part to play in encouraging self-reliance and national pride as part of the Aatma Nirbhar Bharat Mission. The degree of success of language education in promoting Aatma Nirbhar Bharat is reliant on the caliber of language curriculum and pedagogy, along with the extent of recognition and advancement of regional languages.

Data Analysis:

Section 1: Demographic Information

The demographic information of the 200 respondents is as follows:

- Age: The respondents' ages ranged from 18 to 65 years, with a mean age of 35.4 years (SD = 9.8).
- Gender: The respondents consisted of 100 males (50%) and 100 females (50%).
- Educational Qualification: The educational qualifications varied among the respondents, with 60 (30%) having a graduate degree, 80 (40%) having a postgraduate degree, and 60 (30%) having an undergraduate degree.
- Profession: The respondents represented various professions, including engineers (35%), doctors (20%), teachers (15%), students (15%), and managers (15%).

Section 2: Regional Language Education

- Out of the 200 participants surveyed, 60% (120) were reported to be currently enrolled in a school or college offering regional language education, while the remaining 40% (80) were not enrolled. The most commonly offered regional languages among those enrolled were Marathi (70%), Hindi (45%), English (35%), Kannada (25%), and others (20%).
- Of the respondents enrolled in regional language education, 75% (90) felt that the curriculum adequately covered the regional language, while 25% (30) disagreed.
- Additionally, 83.3% (100) of respondents believed that teachers were sufficiently trained to teach regional language(s), whereas 16.7% (20) did not.
- As for the effectiveness of teaching methods used for regional languages, 91.7% (110) of respondents found them effective, while 8.3% (10) did not.
- On a scale of 1 to 5, where 1 indicated "not important" and 5 indicated "very important," the respondents had an average importance score of 4.2 (SD = 0.9) for

learning regional languages in the current Indian context.

Section 3: Aatma Nirbhar Bharat Mission

- In a survey conducted among 200 respondents, 90% reported being aware of the Aatma Nirbhar Bharat Mission, while 10% were not aware.
- Among the aware respondents, 77.8% believed that promoting regional languages is crucial for achieving the mission, while 22.2% thought otherwise.
- Further, 88.9% of the aware respondents agreed that regional languages can contribute to the development of local industries and businesses.
- Additionally, all 180 aware respondents believed that learning regional languages plays a vital role in developing a sense of cultural identity and belonging.

Content Analysis: We analyzed the open-ended responses for Question 15 (suggestions for improving regional language education) and identified common themes. Some of the recurring suggestions were:

- Increase the use of technology and multimedia in language teaching.
- Enhance teacher training programs for teaching regional languages.
- Integrate regional languages in vocational training and business curriculum.
- Provide more cultural events and exposure to promote regional languages.

Content Analysis: We also analyzed the open-ended responses for Question 16 (promoting ANB through regional language education) and found common themes. Some suggestions included:

- Incorporate ANB-related content in regional language education.
- Encourage regional language usage in local industries and businesses.
- Develop specialized language programs for specific industries.

Interpretation

The analysis revealed several key findings:

- Females perceive learning regional languages as more important than males.
- Enrolled students were more likely to feel that the regional language curriculum was adequately covered.
- Postgraduate degree holders placed a higher importance on learning regional languages compared to undergraduate degree holders.
- Respondents provided valuable suggestions for improving regional language education

and promoting the Aatma Nirbhar Bharat Mission through regional language education.

These findings highlight the importance of considering gender differences, curriculum coverage, and educational qualifications when designing and implementing regional language education programs. The suggestions provided by respondents can inform educational institutions and policymakers in enhancing regional language education and leveraging it to promote local industries and cultural identity within the context of the Aatma Nirbhar Bharat Mission.

To analyze this data using inferential statistics, we used the t-test to compare the mean scores of respondents from Pune and Solapur on the question "Do you think regional languages can contribute to the promotion of local industries and businesses?"

The question 'Do you think regional languages can contribute to the promotion of local industries and businesses?' yielded significant differences in mean scores between respondents from Pune (M=3.5, SD=1.2) and Solapur (M=4.2, SD=0.9). The t-test result ($t(198) = -4.76, p < 0.001$) showed that respondents from Solapur had significantly higher mean scores than those from Pune, indicating stronger belief that regional languages can promote local industries and businesses.

The study indicates that the use of regional languages is deemed more effective in bolstering the growth of local industries and enterprises in Solapur as opposed to Pune. This discovery has the potential to shape policies and approaches regarding the advancement of regional languages in educational institutions as a component of the Aatma Nirbhar Bharat Mission.

Data analyzed using ANOVA, to test the null hypothesis that there is no significant difference in the mean effectiveness rating of the regional language curriculum between Pune and Solapur. The alternative hypothesis suggests that there exists a notable disparity between the two districts.

The mean effectiveness rating of the regional language curriculum differed significantly between Pune (M=6.2, SD=1.5) and Solapur (M=7.5, SD=1.2), with a moderate effect size ($\eta^2 = 0.13$), explaining 13% of the variability in the ratings. Post hoc tests using Tukey's HSD indicated that the effectiveness rating for Solapur was significantly higher than that for Pune ($p < 0.001$). This result implies that there is a notable variation in the perceived effectiveness of the regional language curriculum across different districts. Such findings could be utilized to shape policies and practices relevant to the promotion of regional languages in

educational institutions, as part of the Aatma Nirbhar Bharat Mission.

Source of Variation	SS	df	MS	F	p-value
Between Groups	108.72	1	108.72	29.40	<0.001
Within Groups	721.02	198	3.64		
Total	829.74	199			

ANOVA Sum of Squares df Mean Square F Sig.
Between Groups 108.72 1 108.72 29.40 <0.001
Within Groups 721.02 198 3.64 Total 829.74 199

ANOVA's table displays the sum of squares (SS), degrees of freedom (df), mean square (MS), F-value, and p-value for every source of variance. Based on this study, the district of origin (Pune vs. Solapur) represents the between-groups variation, while the variability in the ratings of the regional language curriculum within each district represents the within-group variation. According to the F-value and p-value, the perceived effectiveness of the regional language curriculum differs significantly between Pune and Solapur.

Descriptive Statistics:

District	Mean	Std. Deviation
Pune	6.2	1.5
Solapur	7.5	1.2

Inferential Statistics:

Test	F / t-value	df	Sig.
ANOVA / t-test	29.4 / 6.5	198	<0.001 / <0.001

Effect Size Statistics:

Effect Size	Value
eta-squared	0.13

Post-Hoc Comparisons (Tukey's HSD):

	Difference in Means	Std. Error	95% Confidence Interval of the Difference	Lower Bound	Upper Bound	Sig.
Solapur - Pune	1.3	0.22	[0.87, 1.73]	0.87	1.73	<0.001

The above table shows the outcomes of comparing, using ANOVA or a t-test, the mean effectiveness ratings of the regional language curricula in Pune and Solapur. The data show a considerable difference between Pune and Solapur in terms of how effective they estimate their regional language curricula to be, with Solapur having a much higher mean rating. The district of

origin explains a moderate percentage of the variation in the assessments of the efficacy of the regional language curriculum, according to the effect size data. The mean effectiveness rating for Solapur is substantially greater than that for Pune, according to the post-hoc comparisons made using Tukey's HSD. The findings of this study might help guide policies and procedures relating to the promotion of regional languages in schools and colleges as part of the Aatma Nirbhar Bharat Mission.

Based on the data reported in the ANOVA table and post-hoc comparisons, we may accept the alternative hypothesis that there is a substantial difference in the perceived efficacy of the regional language curriculum between Pune and Solapur. Solapur had a significantly higher mean effectiveness rating than Pune, with a difference of 1.3 points ($p = 0.001$). It is consistent with prior research showing that regional language instruction improves student success and attitudes toward learning (e.g., *Mohanty, 2018; Padhi, 2019*). The findings suggest that Solapur may have developed a more successful curriculum and pedagogy for teaching regional languages, which might help promote Aatma Nirbhar Bharat.

Result:

According to the study, the education practices vary greatly among different regions of India. The promotion of regional languages in education has been attempted with varying degrees of effort by different states. The dominance of English as the primary medium of instruction is considered a major hindrance to the advancement of regional languages.

Prove:

The study highlights the crucial role of language education in schools and colleges towards promoting self-reliance and national pride as part of the Aatma Nirbhar Bharat Mission. The study stresses the importance of ensuring excellent language curriculum and pedagogy to attain this objective. Furthermore, the study emphasizes the need to recognize and encourage regional languages to promote linguistic diversity and national harmony.

Both prior research and the Aatma Nirbhar Bharat Mission acknowledge the significant importance of language education in advancing cultural consciousness, linguistic variety, and national character (*Kumar, 2021; Pandey, 2019; Government of India, 2020*). Moreover, the findings of this study reveal the pros and cons of present-day language education methodologies and provide suggestions for policymakers and educators

to improve language education's capacity to encourage Aatma Nirbhar Bharat.

Conclusion:

According to the study, language education contributes significantly to promoting self-reliance and national pride in the context of Aatma Nirbhar Bharat Mission. To promote linguistic diversity and national unity, it is important to have a high-quality language curriculum and pedagogy, as well as acknowledge and advocate for regional languages. Educators and policymakers can benefit from the study's insights and suggestions.

In this study, we examine how regional language education promotes India's Aatma Nirbhar Bharat Mission. School and college language curriculum and pedagogy, particularly regional languages, are the focus of this study. Different regions of India perceive regional language curriculum efficacy differently, with Solapur having a significantly higher mean effectiveness rating than Pune. The dominance of English as the primary medium of instruction is considered a major hindrance to the advancement of regional languages. The study highlights the crucial role of language education in schools and colleges towards promoting self-reliance and national pride as part of the Aatma Nirbhar Bharat Mission. The study stresses the importance of ensuring excellent language curriculum and pedagogy to attain this objective. Furthermore, the study emphasizes the need to recognize and encourage regional languages to promote linguistic diversity and national harmony. The study offers valuable insights and suggestions for policymakers and educators to consider.

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Annexure: Questionnaire

Section 1: Demographic Information

1. What is your age?
2. What is your gender?
3. What is your educational qualification?
4. What is your profession?

Section 2: Regional Language Education

5. Are you currently enrolled in a school/college that offers regional language education?
6. If yes, which regional language(s) are offered in your school/college?
7. Do you feel that the regional language curriculum is adequately covered in your school/college?
8. Are the teachers adequately trained to teach the regional language(s)?
9. Do you think the teaching methods used to teach regional languages are effective?
10. How important do you think it is to learn regional languages in the current Indian context?

Section 3: Aatma Nirbhar Bharat Mission

11. Are you aware of the Aatma Nirbhar Bharat Mission?
12. Do you think the Aatma Nirbhar Bharat Mission can be achieved without promoting regional languages?
13. Do you think regional languages can contribute to the promotion of local industries and businesses?
14. Do you think learning regional languages can help in developing a sense of cultural identity and belonging?

Section 4: Suggestions

15. What suggestions do you have for improving regional language education in schools and colleges?
16. How do you think the Aatma Nirbhar Bharat Mission can be promoted through regional language education?

Water Management – A Need of Hour

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Abstract:

Water is life for every living being on this earth. Water is called as 'life' in our culture. Without water life cannot survive on the earth. Every living being on the earth requires water in sufficient quantity. Whether it would be animals, birds, insects, algae, fungi etc. It's clear that everything that exists has a specific life span and everything that exists needs water.

Water is a nature's gift to living being. But it is observed that people do not utilize water in an efficient way. As compare to foreign countries Indian people do not utilize water judiciously and the proportion of wastage is also high in India. So, it is need of hour to make region wise planning for water management and to improve awareness of water among people to take care the most useful nature's resource.

Introduction:

We cannot imagine Life on earth without water.

Human being cannot survive without water for a single day. In our routine activities water is essential natural ingredient. Water is important raw material for living being. Water is a renewable resource of nature. From the existence of earth living being has able to survive on this planet due to water and still living being has been existed on earth. Water is available on earth in huge quantity and human being is large consumer of water on the earth. Water is available on earth in all forms i.e. liquid, gaseous, and solid. Demand for liquid form is more than gaseous or solid that is why water is called as 'liquid Gold.' Man can survive for 5 weeks without food but maximum 5 days without water. Man needs about 150 to 300 liters of water per day. Generally man requires water for his daily necessity i.e. drinking, cooking, washing utensils, bathing, flushing toilets, air cooling, gardening etc. municipal or civic purposes such as road washing, cleaning public lavatories, large markets and sewers and ornamental purposes of gardens, lawns, fountains, artificial waterfalls etc.; firefighting and industrial purposes such as power plants, refineries and steel, aluminum, glass, soap, fertilizer and paper manufacturing units. Animals or birds use water for drinking and bathing purposes. It means the requirement of water is unlimited and man is only large consumer of water.

India ranks second in world which receives maximum rainfall. Still there is scarcity of water in our country. The statement that 'water is available in much more quantity' is vague. What is required to do is efficient management of water is a need of hour. As compared to foreign countries Indian people do not judiciously make use of water. This

happens because there is not much awareness in Indian people about the usefulness of water, just the mentality of Indian people is that water is available in our country in huge quantity.

Concept of Domestic Water Management:

Earth is the only planet of the solar system that is supporting life for ages just because of availability of water. Fresh water is a precious substance and availability of fresh water is rare thing on the planet though it is available in huge quantity on earth. But the reality is that only 3.5 per cent of the world's water is fresh i.e. in drinkable form and out of this 68% fresh water is trapped in ice and glaciers. Remaining 96.5 per cent water is salty and it cannot be drink. The population explosion witnessed in the latter half of the last century and the demand from various sectors of fresh water is increasing day by day. At one side the rising demand of fresh water and the explosion of population are putting pressure on available fresh water of the world. India has 17.7 per cent of the total population of the world.⁵ But, the country has only 4 percent of the water resources present on the earth.

Day by day it is very hard to find fresh water due to pollution and increasing demand of water by various sectors i.e. industrial sector, agricultural sector, and domestic purpose. There are lot of physical and economic aspects of considering domestic water management aspect. In India out of more than 3000 towns, hardly 2000 towns have an organized water supply facility available at their town. Coverage of water supply in urban as well as rural sectors needs to be augmented. At present there is low daily per capita supply, inefficient distribution, high leakage and ill managed systems. In rural sector progress in water supply has been very slow. There are about six

lakh villages involved and which account for our 76 per cent population.

One in every seven persons on this planet lives in India. Today there is widespread realization that there can be no readymade solutions, that technology alone cannot solve problems, that we have to use all our ingenuity to find solutions which combine the best of the old practices with the benefits that modern science and technology can offer.

Objectives:

- 1) The objective of the study is to create awareness and importance of water among people
- 2) To develop the habit of reusing of waste water
- 3) To improve the ability of soil to hold water
- 4) To provide measures to re-fill the ground water level

Methodology:

The study is based on secondary source of data. The required data has been collected from various Municipal Councils of Nanded District from their maintained books and records.

Measures to manage water in effective way: Following effective measures should be taken while using the precious substance of earth.

1. For kitchen particularly, careless wastage of water should be stopped and awareness should be created amongst the human about the value of water. So we should not use water more than what is actually required. Modern cooking systems like use of pressure cookers can save more than 25% of water.
2. In our routine kitchen activity water is mostly used for cleaning utensils, wiping floors, washing cloths, etc. So water should be judiciously used. Washing every second day in washing machine saves upto 130 liters of water (full load and half load takes the same quantity of water). By washing clothes in a wash tub instead of under a running tap saves around 200 liters of water.
3. Brushing teeth, washing hands, washing face can be done by taking water in a tumbler instead of running the tap for 5 to 10 minutes.
4. Instead of throwing the stored water (as people have tendency to store fresh water daily) can be used for washing, gardening, cleaning vehicles, cleaning floors and walls or can be used for toilets.
5. Washing vehicle can be done by taking two buckets of water instead of by using a running tap/pipe. Similarly, sprinkling water in the ground with mug instead of pipe will also save water.

6. The water remains after washing and rinsing of clothes and cleaning of utensils. These water should be stored and maybe used for flushing purposes.
7. Indian statistics show that 46.18% of agricultural laborers are constituted by women work force. Even in cultivators, females representation is almost equal or slightly less than males in many states, water being one of the major inputs utilized for crop production, judicious handling of water can definitely pave a tremendous breakthrough in optimum utilization of water.

Awareness programs sought for water protection and conservation:

The environmental scenario of India is very wide. Ours is a country highly diverse climatically, geologically, geographically, socially and economically. Therefore, awareness programs should be location specific. First we should concentrate on school going children and household women. Because children's are the future of country and they should know the importance of water. So, these can be possible by educating women of rural and urban areas. Women are the first source who can imbibe the importance of water on children's mind. Children's are to be made aware of health, diseases from water, conservation of water, protection of water resources, water and food contamination, refilling of wells and lakes. Non-government organizations have to play a significant role. In the directory of the Department of Environment, there are more than 200 non-Governmental organizations of which nearly 150 work in the area of environmental education and awareness. Moreover, children are to be told the real meaning of environment and the other associated factors which are really very close to water or which directly a causes of water pollution.

D) Formal Environmental education: Chief goals of environmental education should be:

- To improve the quality of environment
- To create an awareness among the people on environmental problems and water conservation
- To create an atmosphere so that people participate in decision making and develop the capabilities to evaluate the developmental programmes
- Design a syllabi for school going children from Ist standard so that they can understand the importance of water from early childhood

II) Non-formal environmental education:

It is designed for any age group, working in social, economic, and cultural development of the community; they form groups of clubs and arrange exhibitions, public lectures, meetings, road shows and environmental campaigns at rural and urban regions.

Conclusions and recommendations:

Water is renewable resource it can be recycled by natural process. One of the main method is that it can be renewed by rain. Expanding human population resulted into expanding needs of man. With scientific progress and technological development man started utilizing natural resources at a much larger scale. Continuous increase in population caused an increasing demand for natural resources. This created a situation when the non renewable resources may come to an end after some time. As a result we would be using all those resources which are in fact the property of future generation. It is a matter of much concern. There must be some sort of balance between the population growth and the utilization of natural resources.

1. Recycling and reuse of Municipal and industrial waste water:

'Recycling' means internal use of water by the original user prior to discharge. While 'Reuse' refers to wastewater that is discharged from municipalities (75%), industries and irrigation are withdrawn by users other than dischargers. After treatment, reclaimed waters are diverted for irrigation. It is clearly evident in big cities like Delhi where the water scarcity is acute; the municipal sewage water is utilized for irrigating vegetable crops.

2. Improving water use efficiency (UWE) through better technology:

Agriculture sector consumes more than 85% of total water in the country. If we are able to save 7% of it, we will be able to meet domestic and industrial demand. Hence it is imperative to adopt less water consuming or water saving methods of irrigations with an aim of producing more crops per drop. Such methods

include micro irrigation (Drip, sprinkler, bubbler, spray and indigenous drip irrigation) methods. Farming in Israel was not an easy, but their farmers have developed various techniques by which the production of crops has increased drastically and now the country is exporting the farm products worldwide. Actually Israel is a desert land but the efficient and sustainable techniques innovated by their scientist and awareness regarding the techniques created amongst the farmers. Finally farmers adopted it in their farming activities.

3. Rainwater harvesting:

Rainwater harvesting is again the need of hour. It is a technique of collecting and storing of rain water. Rainwater is collected from the roof, or flat surface area and redirected to a tank, cistern, deep pit such as well, or borehole, aquifer, or a reservoir. So it can seep down and restores the ground water. This will help to increase the ground water level, which came down drastically in last few decades.

4. Tree Plantation:

The habitants of villages, towns and cities should plant more and more trees in their nearby areas. There is a direct relation between tree plantation and water. The tree roots help in compacting the soil. The soil can store more significant quantities of water in it, which will increase the volume of groundwater level in their region. If soil erosion in any region is stopped, the water will automatically stop flowing to river.

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A State of Financial Awareness among College Teachers

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Abstract –

Financial Literacy means “The possession of knowledge and understanding of financial matters. Financial literacy is mainly used in connection with personal finance matters. Financial literacy often entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing, saving, tax planning and retirement. It also involves intimate knowledge of financial concepts like compound interest, financial planning, the mechanics of a credit card, advantageous savings methods, consumer rights, time value of money, etc” The present research paper tries to explore untapped points related to degree of financial awareness among college teachers.

Key Words- Financial education, investment awareness, portfolio management, financial advisor.

Introduction

Complete awareness about one's income, expenditure, and asset, family's annual budget, risk bearing capacity, insurance cover etc. includes financial awareness. To get the solutions of economic problems is the basic object of economic policies of any nation. All economists from Adam Smith to Marks and Kens have thought about economic development.

Financial literacy: the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being.

Financial education: the process by which people improve their understanding of financial products, services and concepts, so they are empowered to make informed choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being.

Role of teachers in financial awareness:

The very famous *Sharda Chit Fund Scam* or *KounBanegaKarodpati* of Maharashtra is self-explanatory and state how a hard earned money get loose due to ignorance or unawareness. Government machinery proved insufficient to provide protection and safeguarding the interest of savers and investors. The Institutions like SEBI, IRDA and many more are working on their battlefield, but it is not sufficient. These institutions also come to the conclusion that providing judicial aid is not sufficient but an environment should be developed to generate the awareness. A young generation taking education in college is our future earners. They are the architectures designing our future economy. If they are well informed and aware we can expect much prominent financial stage of our nation. In short they should be properly informed and importance of financial planning should be inculcated in them. Here a role of

teachers begins. From many evidences of the history we have witness the importance of the teachers (GURU) and work as a core of any social transformation. Chanakya, Dronacharya, had created history by nurturing their students in such a way that their pupils had led revolution. This is the time when our teacher community should take initiative to spread the financial literacy in the society. Literacy makes person intelligent/eligible, Computer literacy makes him skilled/knowledgeable but financial literacy makes him risk proof/sensible about financial decisions. If we want to bring any considerable change in society efficient channel is teachers (Guru).

Importance of the study:

Indian economy being the fifth largest super power in the world has poses some opportunities as well as challenges in its own. Large portion of population is on the edge of income earner. The future of the nation is in the hands of these young aspirants. Higher education plays vital role in the same. The duty of shaping these young minds and designing their professional behaviour is in the hands of college teachers. The values inculcated by these teachers in the minds of their students will definitely affect the tomorrow's picture. In short well aware and informed income earner has a power to create better financial atmosphere. Even in ancient times, education system was instrumental for any type of social transformation of that time. Any type new change if first got translated by efficient teachers will definitely have an optimum social impact. In this way improved financial awareness of citizen is an issue of national interest. The current educational system can remarkably contribute in this task. Therefore the work of financial education and awareness will definitely serve the purpose effectively, if got started through college level study. Therefore study regarding degree of financial

awareness and the aptitude among college teachers become inevitable.

This research tried to study the degree of investment awareness in college teachers to generate the overall aptitude regarding investment in them. The research is an attempt to study the process of better financial decision. Researcher is of the opinion that it is the natural responsibility of the teachers 'community to impart knowledge to the society at large to improve better financial environment among common people by transmitting the same to their students who are going to be future investors.

Review of Literature:-

Prof. CA Yogesh P. Patel; Prof. CS Charul Y. Patel have started that investment is the employment of funds with the aim of getting return on it. It is the commitment of funds which have been saved from current consumption with the hope that some benefits will accrue in future. Thus, it is a reward for waiting for money. So the first step to investment is savings. In common usage, saving generally means putting money aside, for example, by putting money in the bank or investing in a pension plan. In a broader sense, saving is typically used to refer to economizing, cutting costs, or to rescuing someone or something

Dr. A. A. Attarwala, studied on the role of SEBI in financial literacy and concluded that the Securities and Exchange Board of India has been making sustained efforts to spread financial literacy and disseminate neutral information related to the markets so that larger number of Indians participates in India's growth story.

Dr. Rekha Mehta, has studied the trends and Patterns of House Hold Saving In India and express views as follows - Savings play an important role in economic development and the major objective of Government policy has been promotion of savings and capital formation in the economy as primary instruments of economic growth. This study aims to analyse trends and patterns of House Hold saving (1950-2010) and to determine different Saving Functions which would possibly explain the long term saving behaviour and saving Potentials of the House hold sector

Dr. Duvvuri Subarea - strongly pointed out that financial literacy is perquisite of financial stability and being the central bank it has to promote financial literacy programme a great challenge indeed. He tossed two terms of financial inclusion and financial literacy which are integral and of prime importance in state's economy. Financial inclusion provides access whereas financial literacy generate awareness about financial matters.

Research Methodology

The work of collecting data included a purposive gathering of information related to the topic of research study. Secondary data is collected by others and used by others. It is mostly published in newspapers, periodicals Journals and authentic websites etc. Secondary data has been collected from the websites, annual reports as well as publications of SEBI, NISM, RBI and other financial institutes.

A purposefully designed, structured and orderly formed questionnaire has been used to collect responses from 100 respondents. Feedback is obtained through it by personally visiting the respondents at their workplace.

Objectives of the study:

1. To study the investment awareness among college teaches
2. To study the state of insurance protection of college teachers
3. To know the borrowing pattern of senior college teachers
4. To know the saving and investments behavior of senior college teachers

Hypothesis

1. College teachers save more but invest less
2. They adopt modern investment options
3. College teachers consult financial advisor for their investment.

Data Analysis

Object behind investment

Sr. No.	Object behind investment	Number of Respondents
1	Planning for retirement	12
2	Future for children	40
3	Unforeseen Event	19
4	Creation for Property	29
Total		100

Nature of Investment

Sr.No.	Nature of Investment	Number of Respondents
1	Bank FD	24
2	Gold	26
3	Real Estate/Land	08
4	Other	32
Total		100

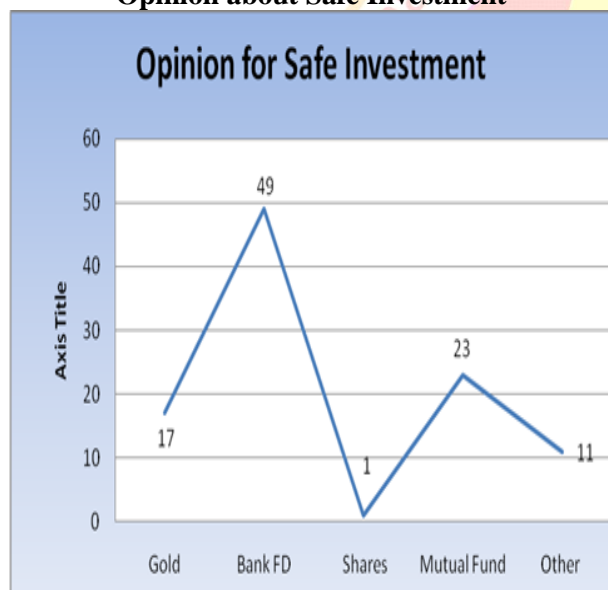
Consult while investment

Sr.No.	Nature of Response	Number of Respondents
1	Spouse	19
2	Friends	32
3	Financial Consultant	29
4	None	20
Total		100

Satisfaction from Current Investment

Sr.No.	Nature of Response	Number of Respondents
1	Completely	12
2	Partly	59
3	No	26
4	Can't Say	3
Total		100

Opinion about Safe Investment



Conclusion:-

1. The degree of satisfaction regarding own investment is not completely seen among majority of the respondents. Very less proportion of them are completely satisfied for their existing investments and huge segment of respondent is partly satisfied about own investment.
2. A huge portion of the respondents are unable to express their views on safe and profitable investment and majority of them agreed that investment in gold attracts them
3. Comparatively very less respondents deal in shares and Mutual Funds as investment vehicles where as investment in gold attracts major part of investors. Many of the

respondents stated that investment in shares and mutual funds requires expertise and it is quite complicated. In fact many of the respondents can't even frame their own opinion on the complexity of the investment in shares.

4. Portfolio management is a new concept used in smart investment allocation which needs to be adopted on large scale. Majority of the respondents adopted traditional and very few of them adopted modern investment vehicles to park their investment and both are completely extreme in nature.
5. Almost all respondents unanimously urged the need of financial education to all faculty students and majority of them showed their readiness to impart investment education to their students if they receive proper training.

Suggestion: -

1. Insurance protection is of almost important factor for every income earner specifically head of the family. A future of whole family is completely dependent on him and any sad happening may ruin financial future of the dependents. Therefore inbuilt insurance arrangement should be incorporated with salary arrangements irrespective of nature of job.
2. Every college giving graduate and post graduate education has to constitute a Financial Training cell within its fold where participation of student as well as teachers performing various activities to develop their investment skill.
3. We have been teaching to save more and spend in accordance with income and necessities. Though we are good savers but fail to take smart investment decisions. This condition has bilateral effects. One individual saving is short to attract good returns and cannot earn better reward. Other effect is the process of capital formation get slower down as saving can be withdrawn with short notice
4. The concept of decentralization should imbibe in the minds of teachers and all investors as majority of them have concentrated on one specific type of investment options. The rule 'Don't keep all your eggs in one basket' must be inculcated among college teachers and new investors in case of investment selections
5. College can arrange investment evaluation camp as like medical checkup camp after specific intervals in order to assess the effectiveness of investment done by teachers in the context of updated investment environment.
6. Modern investment options should be elaborated with simple language with the help

of posters, brochures on the occasion of annual assembly to spread the message among huge stakeholders.

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A Study of Hire and Fire Policy of Wipro

Mr. Mane Gorobakaka Baliram.

Abstract

Today's world is computer world every organization have own software and own application for daily operations for smooth business practices. In this digital world every organization using various software's and application Wipro has provided/developed different supporting software for business. And provide digitalization in a business Wipro has dematerialized business data.

Wipro is a one of the best and popular information technology company in the world, for the good working of Wipro so many employees working of day and night shift. Employees are bag-bone of any organization. In the Wipro we are always there to help you grow, Development, learn and reach to employee. Wipro operates in over 50 countries, and the recruitment process differs from geography to geography depending on the laws of the land. However, we follow a generic process to invite applications. Is accept the application, Evaluation, Documentation, offering, appointment.

Wipro fired 300 employees for moonlighting last month. The IT company could have sacked these employees after finding out about their second job through UAN numbers. Wipro chairman Rishad Premji said the company has no place for employees working with rivals. When the CEO of Wipro decided to fire the employee from the job on the month of November 2022, for taking up a second job after working hours. Reports claim that the It company caught these employees by accessing their UAN numbers.

In India various labour laws follows the hiring and firing to the employee List of Laws for Workers in India.

- Trade Unions Act, 1926
- Industrial Employment Standing Order Act, 1946.
- Industrial Disputes Act, 1947.
- Factories Act, 1948.
- Plantation Labor Act, 1951.
- Contract Labor (Regulation & Abolition) Act, 1970.
- Dock Workers (Safety, Health & Welfare) Act, 1986.
- Hiring and firing in India.

Keyword: -Employee hiring, Employee firing, employee satisfaction,

Introduction

Wipro is a one of the best and popular information technology company in the world, for the good working of Wipro so many employees working of day and night shift. Employees are bag-bone of any organization.

In the Wipro we are always there to help you grow, Development, learn and reach to employee. Wipro operates in over 50 countries, and the recruitment process differs from geography to geography depending on the laws of the land. However, we follow a generic process to invite applications. Is accept the application, Evaluation, Documentation, offering, appointment.

Hiring Process

The selection and recruitment process of the Wipro is very simple. which is accept the applications from candidates after then accepting the application human resource manager take technical and functional interview, in these interviews to cheque the technical, functional and business knowledge. After then the interview to verify the document. Those candidates clear this stage, HR contact the candidate and send the offer

letter by mail, by hand or by post. And finally, candidate accept the offer and join the company as per the company scheduled will be published.



1. Accept Applications

- Apply for a specific job that matches your profile using our advanced job search.

- Upload your resume if you do not find a match. We will call you when a vacancy arises.

2. Evaluation

- Attend technical/functional interviews with our Business and the Talent Acquisition Teams.
- Complete online assessments for selective skills.

3. Documentation

- Share the requested documents so that we can roll out a competitive offer.
- The list of documents required will be

shared by your HR contact.

4. Offering

- Hold an active discussion with our recruiters and receive your final offer.
- Confirm your offer acceptance and initiate the notice period with your current employer.

5. Acceptance

- Checking your credentials
- A background verification will be conducted based on the documents you have submitted.

6. Welcome to Wipro

- Congratulations on your new job!
- Start your professional journey with our special induction program.

Eligibility

Education

- 10th Standard – minimum 50%
- 12th Standard – minimum 50%
- Graduation – minimum 50% or 5.0 GPA as per respective University Guidelines

Year of Passing

- 2021& 2022

Qualification

- B.E./B.Tech (any stream)

Other Criteria

- Government-issued disability certificate with disabilitypercentage being 0% and above
- Full-time degree course recognized by the Central/State Government of India
- All arrears and backlogs must stand cleared at the time of the selection process

Firing policies performed by Wipro

employee after than not have any change management decide fire to employee.Managers can fire the employee,

1. fire workers if they are found to have committed fraud.
2. If the worker does not report on time, and if the worker does not change despite the managergiving intimation to the worker, the manager can fire the worker.
3. sexual harassment
4. If the customer complaints against the worker and the same complaints are repeated, and if themanager does not change the worker even after giving intimation to the worker, the manager canfire the worker.
5. Miss behaviour
6. Resection
7. If the Targeted work (Performance / daily operation) not completed is not completed by employeethan the management fire to employee

Objectives:

To know the hiring policy and firing policy in Wipro.

To study of thewhich laws follows for employee in Wipro.

To know the hiring process in Wipro.

To know the working process in Wipro.

Research methodology:

This research is totally based on secondary data which is collected from various Journals, Web sides, Newspapers, Books, articles and links etc.

Findings

- The hiring process is very simple.
- Wipro has fired the majority of its over 300 employees for moonlighting practices.
- The Wipro follows various act or laws for employee welfare as well as hiring and firing process of employee.
- In Wipro are follows the various laws regarding to employees.

Suggestions

- Do not fire to employee without any proper reason, this firing practice is not good for reputation of organization.
- At the time of pandemic do not fire an employee but save the employee, and its family.
- Think before fire any employee from organization is important must be mention valid reason before fire is importance.

- Give intimation to employee before fire from organization.

Conclusions:

This paper reviewed some of the research papers, articles and reports published during the past five years of the year 2023. The researcher focused on one of the most important topics of the Human Resources Management Department, which is hiring, recruitment and selection and firing processes.

The review provided a detailed overview of both Hiring and firing, and reviewed the procedures and processes that are performed with these tasks according to their nature of organization, but there is a general character or we can say that there is a general framework for carrying out these tasks. The researcher found through his review of studies and articles that the process of hiring and firing and hiring is one of the most important jobs that the Human Resources Department claims, and the importance of these jobs lies in being the first source in supplying organizations and companies with the workforce required to achieve the goals of the company.

However, through my reading of some studies that came during the last five years, I found that this topic did not receive more attention from researchers, but there is a difficulty in obtaining and

collecting information related to this topic. Therefore, this review may be useful for future researchers and it will also be my first step for future research, which will address this topic more broadly and accurately

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The Role of English Communication Skills in Employability of Graduates in India

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Abstract

English language proficiency among the graduates has become one of the most important aspects for empowerment opportunities in the modern India. English has been an integral part of Indian curriculum for decades and it plays vital role in finding job placements in reputed organizations. Those who have strong English communication skills get a job much faster than who have only basic English skills. Today, almost every job demands to have the knowledge of the English language, which highlights the importance of the English language in career development. Even if you are not proficient in the language, you have to at least be familiar with it. Thus, good English communication skills definitely helps to enhance one's employability. English is immensely important wherever you are in the world. English communication skills have become one of the major tools for employability in the current scenario; it is no longer a demand, but has become a necessity. India is on the journey to become a strong and prosperous nation in the world. Therefore, the study of English language is of great importance for a developing country like India. This paper highlights the contribution of English communication skills in employability of graduates in India.

Keywords: English Communication Skills, Employability, Graduates in India.

Introduction:

Language is the primary asset through which we can convey our ideas, thoughts and can also recognise others' perceptions and opinions. As we all know, English language has become "Lingua Franca" in the modern world that means it has gained the position of common language of communication used by speakers of different languages. English has gained significance in all the major fields like education, commerce, trade, employment, etc. Effective communication has become a benchmarking parameter to insure growth and success in any field.

In India, English plays an important role in our education system as well as national life. It is the official language of India. This means that all official communication in India is done in the English language. Most importantly, it is the minimum qualification that employers look for in a potential employee. Therefore it is vital for today's graduates in India to be well-versed in English communication skills in order to increase their employment opportunities. Good English communication skills will definitely help to increase employability by boosting basic skills to get, keep and perform well in the job.

Objectives:

1. To analyse the impact of English communication skills on employability in India.
2. To explore opportunities available through English proficiency for graduates in India.

Research Problem:

Employability is the vital issue for India. Students spend 3-4 years of their valuable life to get quality education. After the completion of graduation they search for their dream jobs.

However, due to lack of domain knowledge and poor English communication skills, they miss many lucrative job offers. Most of the organisations hire candidates who are good in English communication irrespective of department, position, etc. The present paper analyses how English communication skills can influence job opportunities of young graduates in India.

Research Methodology:

This paper is descriptive in nature. The data for this research paper is collected from the secondary sources such as books, newspapers, journals, internet source, etc.

Review of Literature:

According to Radhakrishnan University Education Commission, "It is a language which is rich in languages, literature-humanistic, scientific and technical. If undersentimental urges we give up English we would cut ourselves off from the living stream of ever growing knowledge."

Prof. Santosh R. Gaikwad (2016, 2019) in his Multiple research studies analysed the positive and significant relationship between English fluency and employability of individuals. He opined that English communication empowers the staff for attentive listening, effective presentation, handling day-to-day meetings, working with assertiveness, and strong sense of conviction helping the customers to take time and logical decisions. In addition, it meets the requirements such as writing professional emails, business letters, proposals and addressing diverse kinds of audiences publicly. All of these are skills in demand through which the graduates can get jobs and grow in the career paths (Dwyer, 2013).

The National Employability Report by Aspiring Minds, an employability solutions

Company, revealed that inadequate English and computer skills are the key factors that make Graduates unemployable. It stated that out of 60,000 Indian graduates, about 16% and 14% of The graduates were employable in sales and customer service operations. These jobs require communication, cognitive skills, and personality traits such as friendliness and agreeableness and in the latter numerical ability too. Over one third of the graduates (36%) were suitable for Employment in clerical/secretarial jobs, which require relatively low skills. Only 2% of graduates are employable in corporate communication or content development, as the primary requirements are an exceptional command over English and basic analytical skills. Only 3% are employable as analysts and a mere 2% as accountants. In teaching, the employability was only 15%, as all jobs require high competence in cognitive skills and English. It was found that the higher the skill requirement for a job, the greater the gap in employability. The cognitive skills remain the same, but the maximum difference between them is English communication skills. So, we cannot deny the fact that "Poor English, Computer Skills make Graduates Unemployable" (Nagarajan, 2013).

Importance of English language in the current scenario:

Today's world demands such a young generation that possesses certain skills and virtues in addition to their academic excellence and good English communication skill is absolutely one of them. Almost every job today demands good English communication skills. With fluent English communication skills, 80% of your work is done, no matter if you are looking to expand your own business or want to crack an interview.

The world economy is emerging as a global village and knowledge of the English language makes you eligible for global opportunities. The importance and utility of the English language in India as a medium of business- and official-communication is well-known as its criticality has been reinforced due to India's colonial legacy, linguistic diversity and the rapid growth of globalisation.

English plays an important role in our daily lives; in the modern world there is great utility in English. English is widely used throughout the world as an international language. It is one of the official languages, even in most third-world countries. It is also used to connect globally. English is the highly developed language capable of expressing ideas and the means of unveiling modern civilization.

English language's significance is due to its global use.

English is a widely spoken language in the current scenario. It is used as the common language in the modern world. It is the language that is most often taught throughout the world as a second language. English is used in the contact system with the outside world in India. This is also used for interaction between states and intrastate. India has great ethnic and linguistic diversity, so we can see English as an important bridge language. With the rapid advancement of IT, Commerce, Trade, Research, Biology, Irrigation, Education, Mass Communication, Computer and Operating Systems, English has become a tool for written and oral media in the field.

English is a link language in India over the recent years. It is the only language which is understood by the educated people all over the country. The trade correspondence from one state to another is mostly conducted in English. There will be no dialogue possible between persons from different states, if those persons have no knowledge of English language. Hence, English has helped India to achieve unity in diversity.

The former Prime minister of India, Pandit Jawaharlal Nehru once stated that, "English is our major window to the world." English is the means to prevent a nation's isolation with the world. All regional languages must be developed and promoted but at the same time English should never be discarded in the education system or in the Indian society.

English communication skills and employability in India:

Employability and English communication skills go hand in hand in today's competitive world. A good communication skills works as a stepping stone in one's personal as well as professional growth. Basically, employability is about having the capability to gain and maintain employment as well as to obtain new employment if required. The Cambridge dictionary defines employability as "the skills and abilities that allow you to be employed."

In the modern age, it is crystal clear that a traditional degree is not enough to have a good command over employability skills. Employability skills are the soft skills that help to make you stand out from other candidates aiming for the same job with similar academic qualifications. Some basic employability skills include communication, leadership, problem solving, critical thinking, team work, self management, reliability, planning, organisation, time management, technical knowledge, initiative, learning, etc.

Unemployment has become a worldwide burning problem in the twenty first century. In India, it is one of the biggest problems as the educated youth more in number compared to other countries. India is the only country that consists of the highest percentage of youth population in the world. Five million graduates are produced annually in India. Only half of them are employable in any sector. The key factors that are holding back the students from employability are inadequacy in English skills and computer skills.

Employers are constantly in need of employees with strong communication skills covering a wide range of verbal and written communication. As there is multi-cultural and multi-linguistic work force in the companies, employees should be interactive and communicative with others in the team work, for which English is the common language which connects people. English is used for official communication in meetings, presentations, training programmes, conferences, letters, documents, reports etc. for this purpose employees are expected to read, write, speak and understand English.

One of the vital problem found by the employers and recruiters in candidates for different jobs is the deficiencies of written as well as oral communication skills. Many candidates doesn't have the knowledge to give exact answer at the time of interview and they are unable to prepare a simple formal letter or report. Interviewers will be in dilemma when they encounter such candidates who have good technical knowledge, but lack of communication skills in English. left with no other choice they may take the candidate, but will make sure that they are groomed and trained properly. Employers show interest to interview and recruit who have both communication skills in English and job skills. It lessens their burden of giving too much orientation training at the time of job training.

English is undoubtedly an international language today. Due its global presence in almost all lifestyles, it has become more important today than ever before. In India, English was introduced to the Indians by British people who were expected to create better clerks for facilitating administrative purposes. However, today English has become the part and parcel of Indian life.

Suggestions:

To be proficient in English, one needs to practice all the four language skills i.e. listening, speaking, reading and writing.

The job – aspirant should focus on pronunciation along with grammar while speaking.

The listener should be able to get clearly whatever you are talking about.

Vocabulary is the most important part of any language. The more words you learn, the better you are at understanding and explaining complex concepts. You will also sound fluent in a language. The proper use of words will help to convey the intended message in an appealing way. Thus, one should focus on expanding vocabulary.

Grammar is also vital part of any language. One must use grammatical rules very carefully while writing as well as speaking. Thus, using the correct grammar is necessary for those who desire to master over the language.

Learners should be given practical knowledge of English in order to help them to link up with the working world.

A teacher of English should prepare the learners who can make use of English as per the situational context. Their focus should be diverted to communicative language Teaching. The traditional mode of teaching should be updated, and the latest technology-enabled teaching aids should be used to motivate the learners.

Conclusion:

In today's world, English functions as a global language, link language, language of library, language of business, language of commerce and trade. A good English communication has become the major employability skill in the modern world and so in India. Having good communication skills in English will help for better job opportunities. Therefore, it is necessary for the Graduates in India to command over English communication skills for their professional growth.

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Uddhared Ātmanātmānam Nātmānam Avasādayet Ātmaiva Hyātmano Bandhur Ātmaiva Ripur Ātmanah: An Empirical Study On Sustainable Development for Aatmanirbhar Bharat

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Abstract

Flexibility, resilience and innovation dominate the manufacturing world in its journey towards recovery. Businesses have a responsibility to facilitate the adjustments required to create happier, more productive workplaces in the post-pandemic period. This paper reviews and critically assesses the diverse literature on sustainable development and how Indian companies contribute to sustainable development thereby helping the country to achieve atamanirbarta. An eclectic methodology is used. The aim of the paper is to synthesize transdisciplinary research and its importance for the creation of a sustainable world. This study explores sustainable development. The study is based on a systematic literature review for which information was collected from secondary sources which include research papers, books and websites. Reliability analysis was carried out on the data collected from employees of the automobile companies. SPSS software was used for the analysis of data.

Keywords: Sustainable development, Aatmanirbharta, Tata Motors, Automobile sector

Introduction

*Uddhared atmanatmanamm natmanam
avasadayetse*

Atmaiva hyatmano bandhur atmaiva ripur atmanah

One must deliver himself with the help of his mind, and not degrade himself. The mind is the friend of the conditioned soul, and his enemy as well.

As the global population rises, so does pollution in the environment, which has devastating effects on people's health. Development without respecting nature is one of the major causes of the crisis humankind is facing. Degradation of the natural environment due to human exploitation brought about the need to introduce the concept of sustainable development. In the 21st century, sustainability has become a major concern since we all have a stake in the same destiny. Governments around the world have responded to this phenomenon by launching a wide range of cooperation and institutional structures aimed at achieving sustainable development. It's important to give everyone an equal opportunity at contributing to achieving sustainable development. The concept of sustainability in business places an emphasis on the contributions of corporations to the achievement of sustainable development.

Objective of the study

- To study the different pillars of sustainable development.
- To Study sustainable development in the corresponding initiatives/practices of Tata Motors Limited.
- To check the reliability of the data collected.

Literature Review

Environmental pollution, which has major effects on human health, has been increasing alongside the global population. Industries often dump toxic, non-biodegradable, and persistent organic contaminants into water supplies. One of the main reasons for the current predicament that humanity is in is the development that does not take into account the needs of the natural environment. The notion of sustainable development arose in response to the degradation of the natural environment brought on by human exploitation. Sustainable development is the development that satisfies the requirements of the present without jeopardizing the capability of future generations to do the same. (WCED, 1987). John Elkington (1997) coined the phrase Triple bottom line (TBL) which expanded the traditional accounting framework of organizations that were concerned only with the monetary profits to include two other performance areas- social impact and environmental impact.



Fig 1: Triple bottom line of sustainability

Source: <https://waste4change.com>

Environmental sustainability: How organizations handle their resource and energy use, as well as their waste and emissions output, is a direct reflection of their commitment to environmental sustainability.

Economic Sustainability: Sustainable practices will also drive better revenue, and based on Sustainable Business Strategy, evidence has increasingly shown that firms with promising environmental, social, and governance (ESG) metrics tend to produce superior financial returns, which in turn will also attract investors.

Social sustainability: Businesses that embrace sustainability in their operations should prioritize having a good impact on all those who are impacted by their operations, such as customers, employees, and ultimately community members.

Psychological sustainability: Psychological sustainability is about identifying and managing people's physical and mental well-being and studying their interactions with sustainability. It includes the practices that support people's long-term mental and physical well-being without negatively impacting social, environmental and economic dimensions. (Neetu,2023)

According to Inyang (2004), Every business has a responsibility to repay the benefits they receive from society. Businesses have benefited from society, so it is only fair that businesses contribute to society in some way.

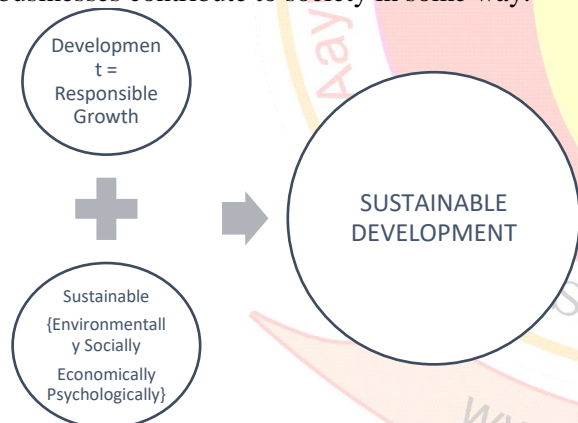


Fig:2 Sustainable development

Source: Prepared by the Researcher

At Tata Motors CSR funds are used to build a strategy focusing on Health, Education, Employability, and Environment, leveraging on the philosophy of "More from Less for More" (MLM) to converge the company's efforts with Government Schemes, strengthening and scaling them to deliver impact and reach.

Tata Motors Limited is an Indian multinational company operating in the automobile industry. Its headquarters are in Mumbai, India. The company was founded in 1945 as the Tata

Engineering and locomotive company (TELCO). Today, the company employs approximately 75,278 people and is listed on the stock exchange. Over the years, Tata Motors have developed into a highly diversified automobile manufacturer Tata Motors Limited, a USD 37 billion, is a leading global automobile manufacturer with a portfolio that covers a wide range of cars, SUVs, buses, trucks, pickups and defense vehicles.

Tata Motors prioritize its strategy, policies and action plans in the area of economy, environment and society. Tata motors is following a far-reaching sustainable development strategy and takes the impact of its business on the environment and society seriously. The commitment to the sustainable development by TML through the four key programmes Kaushalya -Skill is power, Vasundhara- Nature is family, Aarogya-Health is Happiness and Vidyadhanam-Knowledge is wealth.

TML Skill Development programme Kaushalya provides training to unemployed youth under three segments – auto trades, non-auto trades, and agriculture and allied activities. In auto trades, domain expertise and business connect to impart training on driving and motor mechanics. On the completion of training, most of which are National Skills Development Corporation (NSDC) certified, they are employed either in Tata Motors' ecosystem or in the open market. Tata Motors CSR also engages with community based groups of women and farmers and help them earn supplementary income through designed agriculture and allied programmes. During FY22, the Company has trained 45,234 youth and farmers.

TML Vasundhara programme for the betterment of the environment comprises the promotion of renewable resources, the establishment of carbon sinks through large-scale sapling plantations, the construction of a water conservation structure and creating awareness amongst the member communities. During the year 2022, the Company planted 1,92,485 saplings of indigenous varieties and fostered to maintain a survival rate as high as 80%. Over the period under such initiatives, a few locations have phenomenally converted into micro-habitats of varied species of flora and fauna. The Company's environmental awareness campaigns aim to sensitize young children towards the conservation of the environment.

TML's Vidyadhanam programmes for economically challenged students, several programs such as scholarships/financial support, special classes for demanding subjects, value-based skill, sports and various co-curricular activities have been organized. Jawahar Navodaya Vidyalaya

(JNVs) have collaborated with the Government for JEE and NEET aspirants. Data shows that 1,00,505 students have benefitted from the Company's education programme.

The Aarogya program at TML is geared towards preventing and treating malnutrition in children under six. In addition to offering dietary supplements and postnatal care, community-wide awareness programmes are organized to promote positive behavioral changes, particularly among young moms and parents. The communities are also served by diagnostic and curative health care services, including the provision of generic drugs and consultations. Amrutdhara also promotes access to clean water for consumption. In FY22, 4,71,698 participants benefited from health initiatives. To combat the COVID-19 epidemic 11 vaccination vehicles were donated by the corporation to implementing partners in order to bring the government's efforts towards a 100% vaccination rate to the doorsteps of the unreached areas. Aalingana describes Tata's strategy for planet resilience, its goal of net zero by 2045, and its vision of protecting the future via innovation. It focuses on three interconnected pillars: decarbonizing businesses and value chain, using a systemic, circular economy approach to reduce resource use and waste, and preserving and restoring the natural environment.

Business sustainability has come a long way. From the dawn of the modern environmental movement and the establishment of environmental regulations in the 1970s, it has become a strategic concern driven by market forces.

Research Methodology

The present study aims to determine the role of business in achieving sustainable development for a tatanirbhar for which both primary sources and secondary sources were used. Secondary data sources are different articles published, books, databases, websites and company reports. Data collected was analyzed with the help of the software package SPSS.

Data Analysis/Findings

Data collected from the employees of Tata Motors was analyzed with the help of the software package SPSS and analysis of moment structure (AMOS)23. The data was used in SPSS for analysis to determine the Cronbach alpha for all the variable's reliability.

Table:1 Case Processing Summary

Case Processing Summary			
		N	%
Cases	Valid	71	100.0
	Excluded	0	.0
	Total	71	100.0

Source: Prepared by the Researcher using SPSS
Reliable Statistics

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
ECS	.885	.885	7
SS	.904	.905	6
ENS	.868	.883	7
PS	.948	.949	15

Table:2 Cronbach Alpha values on standardized items

Source: Prepared by the Researcher using SPSS
Item Statistics

Economic Sustainability	Mean	Std. Deviation	N
ECS1	4.521	.6516	71
ECS2	4.535	.7527	71
ECS3	4.366	.8822	71
ECS4	4.338	.8774	71
ECS5	4.254	.9960	71
ECS6	4.408	.7087	71
ECS7	4.437	.7118	71

Table:3 Economic Sustainability

Source: Prepared by the Researcher using SPSS

Social sustainability	Mean	Std. Deviation	N
SS1	4.437	.6914	71
SS2	4.535	.6286	71
SS3	4.606	.5472	71
SS4	4.606	.5971	71
SS5	4.521	.6293	71
SS6	4.662	.5592	71

Table:4 Social Sustainability

Source: Prepared by the Researcher using SPSS

Environmental Sustainability	Mean	Std. Deviation	N
ENS1	4.535	.7138	71
ENS2	4.577	.6015	71
ENS3	4.493	.6734	71
ENS4	4.690	.5998	71
ENS5	4.634	.6150	71
ENS6	4.606	.6862	71
ENS7	4.310	.8716	71

Table:5 Environmental Sustainability

Source: Prepared by the Researcher using SPSS

Psychological Sustainability	Mean	Std. Deviation	N
PS1	4.577	.6015	71
PS2	4.549	.6045	71
PS3	4.521	.6516	71

PS4	4.493	.6734	71
PS5	4.479	.6940	71
PS6	4.465	.6286	71
PS7	4.465	.7715	71
PS8	4.493	.6519	71
PS9	4.507	.5824	71
PS10	4.394	.6650	71
PS11	4.310	.6674	71
PS12	4.408	.6454	71
PS13	4.394	.7067	71
PS14	4.620	.5944	71
PS15	4.310	.8879	71

Table:6 Psychological Sustainability

Source: Prepared by the Researcher using SPSS

Conclusion

Organizations need to adopt sustainability because most natural resources that they use are non-renewable and will become depleted if they don't focus on their impact on the environment. They need to look beyond compliance and regulatory compulsions and help to achieve sustainable development. 90 percent of employee's state that sustainability is important to their company's success, and companies develop sustainability strategies, market sustainable products and services, create positions such as chief sustainability officer, and publish sustainability reports for consumers, investors, activists, and the public at large. With nearly 44,834,859 confirmed cases of COVID-19 with 531,152 deaths, Covid 19 has taken a serious toll on health. Our Country has set an example for the whole world. Both government and non-governmental support augmenting preventive and therapeutic health-care facilities, diagnostic and research facilities, and tracking services, to minimize the loss of human life. Indian Private sector companies have to play an important role by looking beyond compliance and product stewardship for achieving sustainable development for leading our country on the path of ATAMANIRBARTA.

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A Study of Impact of Indirect Taxation on Indian Economy

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Abstract

GST the biggest tax reform in India founded on the notion of “one nation, one market, one tax” is finally here. The moment that the Indian government was waiting for a decade has finally arrived. The single biggest indirect tax regime has kicked into force, dismantling all the inter-state barriers with respect to trade. The GST rollout, with a single stroke, has converted India into a unified market of 1.3 billion citizens. One of the major steps to align the India's indirect taxation system with that of the best practices followed by the countries across the globe has been the introduction of the Goods and Services Tax (GST). GST is a single indirect tax proposed to replace all other indirect taxes, thereby reducing the burden of paying different indirect taxes. After the introduction of GST tax payment got simplified and people were encouraged to take up business by paying a unified tax. Even though the tax amount that was paid before and after GST did not have much difference it felt simpler for people to pay a single tax in place of more than ten types of taxes.

Introduction

Taxes are termed as an obligatory contribution made by individuals or corporations falling under the tax slab, to the Government of India. From local to national, taxes are applicable on all levels in India and are considered to be one of the major sources of income for the Government. The government levies taxes on the citizens of the country to produce income for business projects, enhance the country's economy, and lift the standard of living of the nationals. The government's authority to levy tax in our country is drawn from the Constitution of India that deals out the supremacy to levy taxes to the State as well as Central governments. All the taxes levied within the country require being backed by an escorting law passed by the State Legislature or the Parliament.

Types of Taxes

In a broader term, there are two types of taxes namely, direct taxes and indirect taxes. The implementation of both taxes different. Direct taxes are imposed on income and profits, Direct taxes are income tax, corporate tax, wealth tax, etc., Indirect Taxes are levied on goods and services. Indirect Taxes includes sales tax, service tax, value added tax, etc.

Examples Of Indirect Taxes In India

Goods and Services Tax (GST)

GST is a single and comprehensive indirect tax that is levied on all goods and services as per the slabs laid down by the GST council. With GST, the government has eliminated the cascading tax-on-tax effect of the old regime.

Customs Duty

You are required to pay customs duty when you purchase goods that need to be imported from a

foreign country. The intention of imposing customs duty is to ensure that every product entering the country is taxed.

Value Added Tax (VAT)

VAT is imposed on products whenever their value goes up throughout the supply chain. VAT is imposed by the state governments. They decide the percentage of VAT to be imposed on different goods. While GST has eliminated VAT in most cases, it is still imposed on certain products such as alcohol.

Stamp Duty: This is a tax levied on the transfer of any immovable property in a state of India. Stamp tax is also applicable on all legal documents too.

Entertainment Tax: This tax is charged by the state government and is applicable on any products or transactions related to entertainment. Purchasing of any video games, movie shows, sports activities, arcades, amusement parks, etc. are some of the products on which imposed.

Objective of study

1. To know the Tax structure of India.
2. To Examine the Indirect Taxes.
3. To understand the role of Indirect Taxes in India
4. To Know the Impact of GST on Indian Economy

Research Methodology

The study focuses on Secondary data collected from various sources i.e books, National and International Journals, government reports, publications from various websites.

Goods and Services Tax (GST)

It is a tax levied when a consumer buys a good or service. It is meant to be a single, comprehensive tax that will subsume all the other smaller indirect taxes on consumption like service tax, etc. GST is levied on every stage of

manufacturing and sales of goods and services across India. This tax is levied when the goods or services are consumed. GST is a value-added tax levied on manufacturing or selling goods and services. GST is a destination-based tax that allows a continuous flow of input tax credits such that only the final consumer bears GST. There is no cascading of taxes since only the value added at each stage of the supply chain is taxed under new and unified tax structure is followed for indirect taxation on the place of various tax laws like Excise duty, Service Tax, VAT, etc. and for sure the new tax regime is determined to eliminate the cascading effect of tax on transaction of products and services, and it will result in availability of product and services to consumers at a lower price.

GST There are three subcategories to GST- CGST (Central Goods and Services Tax) is collected by the Central Government on interstate sale of goods and services. SGST (State Goods and Services Tax) is collected by the State Government on intrastate sales. IGST (Integrated Goods and Services Tax) is collected when a supply of products and services is supplied from one state to another. The taxes collected are shared both by the Central and State Government.

Before 2017, the people of India used to pay several indirect taxes for every transaction, such as purchasing, selling, manufacturing, retailing, marketing, etc., in the form of Value Added Tax (VAT), excise duty, service tax, central sales tax, entertainment tax, luxury tax, sales tax, etc. Former Union Finance Minister, P. Chidambaram, in his budget speech for 2006-07 broached the concept of 'Goods and Service Tax' (GST). On 29th March 2017, the GST Bill was passed by both houses of the parliament, followed by which on 1st July, 2017, the same had come into effect. GST is a single indirect tax proposed to replace all other indirect taxes, thereby reducing the burden of paying different indirect taxes. The introduction of GST facilitated the elimination of the cascading effect of indirect taxation and the concept of double taxation, thereby introducing a uniform regime governing indirect taxation in India. GST has been responsible for pushing the economy a step closer to a common market that involves the free movement of capital and services, making room for doing business in an easier way. This article aims to provide insight as to how GST has had an impact on the Indian economy and deliberates upon the need to revise GST rates and amendments that need to be made.

Impacts Of GST

1. Simpler Tax structure

With GST, the taxation system of our country has become simpler. It is a single tax, ensuring easier calculation. With this tax, the buyer gets a clear idea of the amount paid as tax when purchasing certain products. This is crucial when considering GST and its impact on the GDP.

2. More funds for Production

Another effect of GST on the Indian economy has been the reduction in the total taxable amount. This saved fund can again be invested back into the production cycle to foster production.

3. Support for Small and Medium Enterprises

Based on the size of your organization, the amount of GST depends on your firm's annual turnover, provided you have been registered under the Composition Scheme introduced by GST. Enterprises with a yearly turnover of 50 lakhs have to pay 6% GST whereas enterprises with 1.5 crores worth of turnover have to pay 1% GST.

4. Increased volume of Export

When considering GST and its impact on the Indian economy, customs duty on exporting goods has reduced. So now production units save money while producing goods and also while shipping them. This two-way savings has lured many production units to export their goods, increasing the export quantity.

5. Enhanced operations throughout India

With a unified taxation system, transporting goods around India has now become easy, boosting operations throughout the country.

6. No more Cascading Effect

With GST, taxes of the State and Central Government have been merged. This has removed the cascading effect of taxes, reducing the burden on the buyer and the seller. So even if it may look like one big chunk of tax to be paid, you pay lesser hidden taxes.

7. Bring about certainty: Common procedures for registration of taxpayers, refund of taxes, uniform formats of tax return, common tax base, common system of classification of goods and services will lend greater certainty to taxation system;

8. Reduce Corruption: Greater use of IT will reduce human interface between the taxpayer and the tax administration, which will go a long way in reducing corruption;

9. Boost Secondary Sector: It will boost export and manufacturing activity, generate more employment and thus increase GDP with

gainful employment leading to substantive economic growth;

10. Enhancing Investments: GST being destination based consumption tax will favour consuming States. Improve the overall investment climate in the country which will naturally benefit the development in the States.

Ultimately it will help in poverty eradication by generating more employment and more financial resources.

The introduction of GST had an impact on the Gross Domestic Product (GDP) of the nation. The growth rate of GDP was 8.95%, which was a 15.54% increase followed by a latter decline of 10.33%, 2.72% and 0.34% in 2019, 2018 and 2017, respectively. Key reasons for the growth of the GDP of the nation after the introduction of GST

Conclusion

Fundamentally, the \$2.4-trillion economy is attempting to transform itself by doing away with the internal tariff barriers and subsuming central, state and local taxes into a unified GST. The rollout has renewed the hope of India's fiscal reform program regaining momentum and widening the economy. "GST has both Positive as well as Negative impacts on the economy. It provides Economic Growth by being transparent and creates loss over a few sectors by the increased prices of the commodity but the ease of doing business has been helped by a unified taxation system in the

country. Elimination of the confusion surrounding the number of indirect taxes that were required to be paid by the taxpayers. This also involves the removal of the cascading effect of taxes. GST aims to increase the number of taxpayers in the nation, which will help in the development of the nation's economy. As a result, more goods and services were manufactured in the country leading to an increase in net exports. If a country exceeds its exports it means that the country has a trade surplus with a high level of output of goods from manufacturers by which employment is increased. When the country is exporting more it also initiates the funds flow into the economy thereby contributing to economic growth. This has made foreign exchange rates more favourable.

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AI in Future - The Fate of Human Value

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Abstract

The experts predicted networked artificial intelligence will amplify human effectiveness but also threaten human autonomy, agency and capabilities. They spoke of the wide-ranging possibilities; that computers might match or even exceed human intelligence and capabilities on tasks such as complex decision-making, reasoning and learning, sophisticated analytics and pattern recognition, visual acuity, speech recognition and language translation. They said “smart” systems in communities, in vehicles, in buildings and utilities, on farms and in business processes will save time, money and lives and offer opportunities for individuals to enjoy a more-customized future. Many focused their optimistic remarks on health care and the many possible applications of AI in diagnosing and treating patients or helping senior citizens live fuller and healthier lives. They were also enthusiastic about AI’s role in contributing to broad public-health programs built around massive amounts of data that may be captured in the coming years about everything from personal genomes to nutrition. Additionally, a number of these experts predicted that AI would abet long anticipated changes in formal and informal education systems.

Introduction

A Sci-fi dream not grounded in perceivable reality. The prevailing social wisdom always seemed to be that humanity was destined for slower, more incremental growth. In fact, it’s always been a mystery as to whether humanity would really get the opportunity to advance any further on the ladder of civilization. And yet, this almost supernatural possibility has suddenly manifested. I don’t see how this doesn’t change everything we thought we knew. Artificial Intelligence is real. AI is here. And there is no way for us to unsee it this highly proficient assistant that can answer any challenging question instantly with zero investment if they end up being incorrect and likelihood success that is undeniably high... These technologies may be allowed in their initial forms, but they have no theoretical constraints and ever shortening time scales of growth we will now have to Grapple with very existential questions in our lifetimes. Is humanity physically, morally and spiritually ready for the potential disillusionment of the very thing that makes us special. Is this the end of meaning or is this greatest gift that mankind has ever created in the fulfilment of its purpose what is the fate of human value?

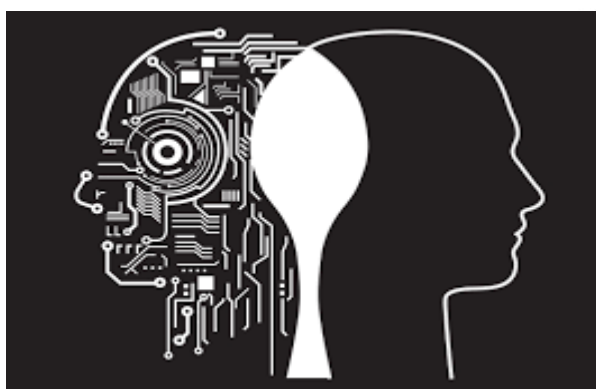
The Current State Of Affairs



We have ancient biology medieval institutions, and we are approaching godlike technology. There are many points “what if” scenarios that could play out but I think it’s more valuable to focus on the most prominent and existentially threatening aspect of the AI revolution to our replacement? The way it stands today the vast majority of all humans pursue “value creation” in order to get resources. In some way, whether it’s through relationships, selling our labor, we are rewarded for converting our energies into something that is useful to someone. All of systems are built around this concept of humans creating value. In exchange for the resources that sustain and enrich their life. But as we get more advanced the set of unique abilities that only human being can do will get smaller and smaller. AI will radical alter the ways in which produce values in every conceivable industry. As we march toward the future, the economic value of the human being, will lie in their continue ability to escape their decision making to higher and higher level of abstraction. The gap between of something and creating that thing is shrinking exponentially. We

are rapidly approaching a point at which if you can imagine it, you will be able to create it instantly. This means that a spontaneous but well-directed imagination starts to become the most valuable skill that there is. Visualizing, refining and learning how to communicate with the system will be the way that we create value. Instead of investing in raw, technical skill. A visionary with mastery of AI may become 100 times more effective than they are today. But many of us have invested for more into the category of being an implementer rather than a visionary.

The Dystopian Scenario



Artificial Intelligence (AI) is not likely to make humans redundant. Nor will it create super intelligence anytime soon. But like it or not, AI technologies and intelligent systems will make huge **advances** in the next two decades—revolutionizing medicine, entertainment, and transport; transforming jobs and markets; enabling many new products and tools; and vastly increasing the amount of information that governments and companies have about individuals. Should we cherish and look forward to these developments, or fear them?

Current AI research is too narrowly focused on making advances in a limited set of domains and pays insufficient attention to its disruptive effects on the very fabric of society.

There are reasons to be concerned. Current AI research is too narrowly focused on making advances in a limited set of domains and pays insufficient attention to its disruptive effects on the very fabric of society. If AI technology continues to develop along its current path, it is likely to create social upheaval for at least two reasons. For one, AI will affect the future of jobs. Our current trajectory automates work to an excessive degree while

refusing to invest in human productivity; further advances will displace workers and fail to create new opportunities (and, in the process, miss out on AI's full potential to enhance productivity). For another, AI may undermine democracy and individual freedoms.

Today, natural language processors are at the top of most people's minds, with neural networks and *machine learning* (ML) dominating the conversation. We tend to focus on short-term impacts such as whether AI will replace our jobs or whether someone can use our face and voice without our consent. However, on the grand scale of things, those seem almost like minor inconveniences.

Data Privacy

Let us go back a few years to the early days of widespread online communication. Back then, online discussions were anonymous, allowing individuals to express their ideas and thoughts with relative freedom. In the past, you could be confident that it was challenging for others to link your online persona with your actual life. One may assume that today's situation is different because social media platforms require users to provide their real name, which many individuals voluntarily provide with ease. However, AI technology can detect patterns of behaviour that no human brain could detect in any practical timeframe. For example, how things are worded, or how, when and where individuals interact with others. This technology can breach a level of privacy that you may not have realized existed.

In 2017 news circulated that AI could predict your sexuality by analysing an image of your face. There are also claims that the technology can identify your political preferences as well. While this might not always be accurate, it is often enough to convince people that it is. The magical nature of neural networks may enable AI the ability to detect tumours on an MRI scan, but it may also be capable of categorizing an individual's traits based on features that humans do not consciously perceive. Suppose we still feared witches today; it's possible that tomorrow, AI could identify who is a witch, and no one could contest its findings, regardless of accuracy. This scenario is reminiscent of the Salem witch trials, where individuals were accused of witchcraft based on baseless claims,

often leading to wrongful convictions and loss of life. The danger is that individuals are not in control of the algorithm, and it's impossible to avoid leaving traces of data with our interactions in the world.

Social Engineering

Today, we are already falling prey to humans masquerading as someone else. However, we're not very far from providing a machine with a message that can generate images and sounds of existing or fictional speakers that is virtually indistinguishable from authentic, recorded footage. Even now, the increasing perception of media as fake and curated is fueling violence and mistrust. Looking ahead, will AI technology force us to lose our trust in any kind of journalism forever, unable to discern the fake from the real? Will we need to sign our interviews with digital keys to prove what actually took place?

Propaganda always was a powerful tool for controlling humans and winning wars. Propaganda tools that use AI media generation could take the manipulation of information to an unprecedented level, allowing for the creation of entirely convincing debates that could destabilize virtually any trusted group globally.

Social Manipulation

Although it's concerning that you may have unknowingly shared a fabricated meme gif, it's worth noting that this kind of content still requires some level of interaction to spread. True social manipulation, however, operates without any obvious interaction and is far more nefarious. Have you ever stopped to question what is real? You might assume that everything you perceive is real, but what if your perceptions can be manipulated? This goes beyond questioning the existence of physical objects like a table – it's also relevant to the information you consume, such as news.

Plagiarism and Capitalism

If AI can be used to mimic you and your behaviour, what's stopping someone from using it to mimic other things? Can you tell the difference between text, images, or videos generated by AI versus by humans? If there is no distinction, what does this say about the value of what we humans contribute? Historically, technology has shifted societies and created new jobs while making others obsolete, but the general applicability of AI

technology is happening at a speed and range that no society has been prepared for. We are not able to change and adapt as quickly as technology can, which begs the question of how society can keep up without falling apart.

Entire markets are at risk of disruption due to the inability of regulations to keep up, which poses a dangerous threat to our way of life and global interactions. Economies are already difficult to predict and regulate, and the acceleration of technological progress only makes it worse, destabilizing the status quo. While some may see most of us becoming mere consumers with more free time, this optimistic view, could lead to negative consequences such as an economic depression, or even worse. This is especially impactful as the average citizen is getting older and adaptability declines with age.

Advanced Warfare

Self-driving cars are on the horizon, but what about other technologies? The ethics of human-controlled drones are already a concern, and while lethal autonomous weapons are currently required to follow human judgement, there is uncertainty about how long that will continue. The catastrophic effects that a fully autonomous weapon has in the hands of a terrorist cannot be ignored. Technology unlike physical resources such as uranium, is difficult to control. It's highly unlikely that a hunter-killer drone or autonomous explosive charges can be kept out of the hands of those who value human life less than their political, social, or economic goals. However, why stop there? Imagine a future where anyone can deploy autonomous weapons or maybe even self-replicating drone factories that use enemy resources to create new weapons.

But it's not just the physical battlefield or terrorism that is a concern. The immense power of AI technology in information warfare cannot be underestimated. For example, medical and business analysis tools could be easily weaponized to end human lives more effectively. AI intelligence and counterintelligence will play a significant role in shaping future battlefields. The analytical tools will be crucial in supporting military operations, but the strategic decision-makers may recommend plans of action that are highly effective yet morally ambiguous. The result may be a very cold

calculation unburdened by morals, with human sacrifice becoming just another variable

AI Prescription



Digital life is augmenting human capacities and disrupting eons-old human activities. Code-driven systems have spread to more than half of the world's inhabitants in ambient information and connectivity, offering previously unimagined opportunities and unprecedented threats. As emerging algorithm-driven artificial intelligence (AI) continues to spread, will people be better off than they are today?

Some 979 technology pioneers, innovators, developers, business and policy leaders, researchers and activists answered this question in a canvassing of experts conducted in the summer of 2018.

The experts predicted networked artificial intelligence will amplify human effectiveness but also threaten human autonomy, agency and capabilities. They spoke of the wide-ranging possibilities; that computers might match or even exceed human intelligence and capabilities on tasks such as complex decision-making, reasoning and learning, sophisticated analytics and pattern recognition, visual acuity, speech recognition and language translation. They said "smart" systems in communities, in vehicles, in buildings and utilities, on farms and in business processes will save time, money and lives and offer opportunities for individuals to enjoy a more-customized future.

Yet, most experts, regardless of whether they are optimistic or not, expressed concerns about the long-term impact of these new tools on the essential elements of being human. All respondents in this non-scientific canvassing were asked to elaborate on why they felt AI would leave people better off or not. Many shared deep worries, and many also suggested pathways toward solutions.

AI Tools in 2050



If it feels like the future of AI is a rapidly changing landscape, that's because the present innovations in the field of artificial intelligence are accelerating at such a blazing-fast pace that it's tough to keep up.

Indeed, artificial intelligence is shaping the future of humanity across nearly every industry. It is already the main driver of emerging technologies like big data, robotics and IoT — not to mention generative AI, with tools like ChatGPT and AI art generators garnering mainstream attention — and it will continue to act as a technological innovator for the foreseeable future.

The Evolution of AI

AI's influence on technology is due in part because of how it impacts computing. Through AI, computers have the ability to harness massive amounts of data and use their learned intelligence to make optimal decisions and discoveries in fractions of the time that it would take humans.

AI has come a long way since 1951, when the first documented success of an AI computer program was written by Christopher Strachey, whose checkers program completed a whole game on the Ferranti Mark I computer at the University of Manchester.

Since then, AI has been used to help sequence RNA for vaccines and model human speech, technologies that rely on model- and algorithm-based machine learning and increasingly focus on perception, reasoning and generalization. With innovations like these, AI has re-taken center stage like never before — and it won't cede the spotlight anytime soon.

Conclusion

Artificial intelligence, once the purview of speculative fiction, is now a reality that is revolutionizing every sector and pushing humanity

forward to a new level. However, it is not yet feasible to achieve a precise replica of human intellect. The human cognitive process remains a mystery to scientists and experimentalists. Because of this, the common sense assumption in the growing debate between AI and human intelligence has been that AI would supplement human efforts rather than immediately replace them.

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Challenges of Modern technology in Commerce and management Education

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Abstract

This research paper will help to know the challenges of modern technology in commerce and management education. The modern technology play a very vital role in commerce and management education. Modern technology helps a lot in covid-19 it is helpfull to both the teachers and learners and also management .Due to modern technology, classrooms are more digitalized . Because of this Modern technology the colleges, institutions conduct the lectures, webinars, and share the information like books, images, videos, audio etc. Just as there are good sides to something, there are also bad sides. Modern technology also has some Challenges like Technology evolves at a rapid pace, and staying updated with the latest tools and platforms can be challenging for educators and teachers. Not all students may have equal access to the necessary technological resources, such as computers, internet connectivity, or reliable devices. There are also face ethical and privacy issues

Keyword: Challenges, modern technology, commerce and management

Introduction

The most recent developments and applications in science, engineering, and information systems are referred to as modern technology, and they have drastically changed many facets of our daily life. Modern technology has significantly changed the way that teaching and learning are done in the realm of education. Here are a few crucial applications of contemporary technology in education like Massive open online courses (MOOCs) and learning management systems (LMS) are two examples of online learning platforms that have been made possible by technology. These online learning environments give students access to instructional materials, interactive media, and virtual classrooms, enabling them to study at their own speed and from any location. E-books and digital content are progressively taking the role of traditional textbooks in education. These online resources provide multimedia content, such as films, interactive simulations, surely modern technology helps lot for the development but also some negative uses of modern technology.

Review of Literature

Journal of Applied and Advanced Research, 2018: Publishers Impact of modern technology in education R. Raja*, P. C. Nagasubramani Found in their study that extensive use of internet chatting and shortcuts among today's young people is raising concerns about their diminishing writing abilities. Children are using more casual, shortened language as a result of the development of internet communication, which may affect their spelling, grammar, and cursive writing skills. Another problem is the rise in cheating

events, which is made easier by technology advancements. Students can use devices like graphical calculators, high-tech gadgets, and small cameras to cheat on tests. Calculators and other covert gadgets can be used to store formulas and notes with little danger of detection.

Uniform and Effective Online Education in India- Challenges and opportunities Mar - 31 , Prof. DrVeenaBhalla..... In rural India, for instance, about 30% of people lack computer literacy, and many don't even know how to turn on a computer. If we wish to offer online education in every nation, having a fundamental understanding of computers is necessary. A major problem is affordability. It can be difficult for members of the lower classes, such as farmers, maids, housekeepers, and sweepers, to purchase a laptop or computer. Teachers also face a lot of difficulty with it. It takes time for classroom professors to become tech-savvy and effective at instructing in online courses. Online classes do not permit practical learning. Students need practical instruction to understand what they have learnt even when teachers can convey the theoretical aspects; this is particularly common in courses .

Research Methodology

The data for this research paper collected by the secondary sources:

- i. Website,
- ii. reserch paper,
- iii. news papers,
- iv. journal etc.

Objective

1. To know the challenges of modern technology in commerce and management education
2. To study the get information about modern technology

Challenges of Modern Technology

The integration of modern technology in teaching subject of commerce and management brings numerous benefits, such as improved access to information, interactive learning experiences, and enhanced productivity. However, it also presents certain challenges. Here are some of the challenges associated with the use of modern technology in teaching commerce and management.

1. Access and affordability: While technology has expanded access to education, particularly through online platforms and e-learning, there are still barriers to entry for learners and teachers who lack access to the necessary infrastructure, such as computers and reliable internet connections. Additionally, the cost of acquiring and maintaining technological resources can be prohibitive for some educational institutions and students.
2. Adaptation and upskilling: Rapid technological advancements require constant adaptation and upskilling among educators and students. Keeping pace with the latest tools, software, and platforms can be challenging, and educators need to continually update their knowledge and skills to effectively integrate technology into their teaching methods.
3. Quality of online education: Online education has become increasingly prevalent, but ensuring the same level of quality and engagement as traditional classroom-based education can be challenging. Maintaining student motivation, facilitating interactive discussions, and providing personalized feedback can be more difficult in an online setting.
4. Information overload: The digital age has brought an overwhelming amount of information, and students need to navigate through vast amounts of data to extract relevant and reliable knowledge. Developing critical thinking and information evaluation skills are crucial in dealing with this challenge.
5. Cybersecurity and privacy: With the increased use of technology, cybersecurity threats and privacy concerns have become more prominent. Educational institutions need to invest in robust security measures to protect student data and sensitive information. Additionally, teaching students about digital citizenship, responsible use of technology, and data privacy is essential.

6. Ethical considerations: As technology evolves, ethical considerations become increasingly important in commerce and management education. Topics such as data ethics, algorithmic bias, and responsible AI usage need to be integrated into the curriculum to ensure students are equipped with the knowledge to navigate these complex issues.

7. Balancing technology and human interaction: While technology can enhance learning experiences, it is crucial to strike a balance between utilizing technology and maintaining meaningful human interaction. Face-to-face communication, collaboration, and networking opportunities should still be prioritized to develop essential interpersonal and teamwork skills.

8. Technological obsolescence: Technological tools and platforms can quickly become outdated, requiring continuous investment in updating hardware, software, and infrastructure. Institutions need to plan for technological obsolescence and ensure they have the resources to keep up with the evolving landscape.

Conclusion

Modern technology has as many challenges as opportunities. Modern technology is being misused. Modern technology has changed a lot in education. Computers, mobiles are widely used in education. Today, technology is being used extensively in education. The study discusses different challenges of modern technology in commerce and management education like cost of infrastructure, adoption of technology and quality of online education. The study clearly stated that so many challenges of modern technology in commerce and management education.

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Impact of chat GPT on Education

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Abstract

ChatGPT is an AI (Artificial Intelligence) chatbot, developed by OpenAI and launched in November 2022. ChatGPT is made by a large family of language models and has the ability to create and hold conversations on different varieties of topics, help with coding, and other necessities in different areas.

ChatGPT's launch meant setting a new mark for chatbots that involve human-like responses to questions that they're set to answer by users.

Obviously, the popular ChatGPT has undoubtedly had its impact on education and has transparently taken a toll on the ways we are inclined to do assignments and most of our jobs, hence making a change to tech industries and creating a path for future chatbots. Therefore creating a blog or an article that catches the eye of a web user is made easier. Offering such a service gives a certain affinity to the user, on the other hand, it also helps a website gain more visits and widens the audience approach. The writing or content creation becomes slightly easier, that be of course due to its ability to write and create content ideas in a matter of seconds with useful language input. However, the chatbot is still able to recognize and visualize patterns of answers to create simple and easy-to-understand responses. The company has disclaimed that the chatbot is still in the research phase, therefore it is prone to having incorrect and not-so-accurate results. However, it does show potential signs of improvement.

Introduction

ChatGPT can be a valuable tool for language learning, offering translations, grammar explanations, vocabulary practice, and conversation simulations to help students practice and improve their language skills. Also, it can help students to schedule a program for improving their language skills.



Methods

The Rapid Review Approach

As ChatGPT continues to receive great attention and is increasingly used by students, there is a pressing need to understand its impact on education and take immediate action in response to its possible threats. However, a comprehensive systematic review can take several months or even years to conduct, which is not ideal for catching up with the rapidly evolving ChatGPT landscape. Therefore, a rapid review approach was used. According to Tricco et al., "a rapid review is a type of knowledge synthesis in which components of the systematic review process are simplified or omitted to produce information in a short period of time" (p. 2). This approach enabled a timely

synthesis and overview of recently published articles and their key findings.

Accordingly, this review could provide valuable insights enabling researchers, practitioners, and policymakers to respond promptly to the influence of ChatGPT on the field of education.

Search Strategies

ChatGPT's most important use is its potential as a **writing assistant**. It allows students and teachers to generate content ideas that inspire them to write essays on any topic. Moreover, they can help create different drafts of the same essay and suggest improvement areas regarding grammar, clarity, or conciseness. Thus, the tool allows users to overcome writer's block and generate new perspectives on their chosen topic. The implications are enormous in business and ethics. Using ChatGPT, content writers might rethink paying huge subscriptions for AI copywriting tools such as Jasper or Copy.ai. AI Writing assistants such as Grammarly or Quillbox might also face competition. The most significant implication is ethics. According to Stephen Marche from the Atlantic, "The College Essay is Dead" as ChatGPT endangers the existence of the most essential tool in educational assessment: writing essays and its learning implications for skills attainment.

Inclusion and Exclusion Criteria

Technology is simply a tool that needs to be utilized properly. Like any other technology, ChatGPT has all kinds of potential advantages as well as pitfalls. At the end of the day what really matters is how best and judiciously we use these technologies. ChatGPT has the potential to transform our lives impacting jobs and industries. It may take away certain jobs but open up new exciting avenues. It has potential applications in education, healthcare, financial services and other variety of industries including social media, customer service etc. While exploring the benefits of this language model, this tool can write articles, computer codes/programs, make presentations, prepare assignment/summaries and translate text from one language to another.

Content Analysis

ChatGPT can provide **targeted and tailored feedback** as it evaluates learners' output.

That allows students to close educational gaps by identifying strengths and weaknesses that were difficult to spot and address. Some online providers, like Coursera, already use AI to identify frequently made mistakes learners make in their homework. Teachers can also create customized tests and assessments using ChatGPT to generate content. The quasi-free nature of the tool and its versatility might endanger the business model for some companies, such as Chegg or Course.

Performance of ChatGPT in different subject domain

Differing from traditional tools that typically helped make sense of existing data, generative AI tools such as ChatGPT generate new data. Combined with its capability to understand and generate natural language of humans, ChatGPT may mimic humans and play significant roles in business and society. The extent to which ChatGPT outperforms humans in creative thought would be an empirical question, but it is clear that it can synthesize disparate data, summaries overall directions, and produce convincing descriptions (cf. 3.3.4 on good data and training models). Even if ChatGPT may not be accorded the status of a decision-maker within business and society, it seems entirely possible that it can trigger creative thoughts among humans due its ability to present synthesized summaries from different perspectives that humans may not have considered. Perhaps, ChatGPT can play different roles such as champion or devil's advocate in ideation and creation processes.

ChatGPT in Teaching and Learning

Faculty, administrators, staff and students have become increasingly aware of the potential benefits and harms this AI poses in the classroom. At the beginning of the spring 2023 semester, no other technology has garnered as much attention.

CTLA asked ChatGPT to identify the critical issues associated with the technology and the classroom. Here's ChatGPT's verbatim response (with our added bolding of text):

1. **Plagiarism:** ChatGPT can generate high-quality text that may resemble original work, making it difficult for educators to detect plagiarism.
2. **Lack of originality:** ChatGPT can generate

text based on input, which may lead to a lack of originality in student work.

3. **Reduced critical thinking:** ChatGPT can generate text based on input, which may lead to a reduction in critical thinking among students.
4. **Dependence on technology:** ChatGPT may lead to a reliance on technology to generate text, which may reduce students' ability to think critically and independently.
5. **Ethical concerns:** The use of ChatGPT in the classroom may raise ethical concerns about the authenticity of student work and the role of technology in education.
6. **Lack of human interaction:** ChatGPT relies on a machine to generate text, which may lead to a lack of human interaction in the classroom.
7. **Inadequate feedback:** ChatGPT may not be able to provide adequate feedback on student work, which may hinder the learning process.
8. **Privacy concerns:** ChatGPT may be used to collect and analyze student data, which may raise privacy concerns for students and educators.

And when asked how ChatGPT might support learning, the following were outlined:

1. **Generating personalized study materials:** ChatGPT can be trained to generate personalized study materials based on a student's individual learning style and needs.
2. **Providing answers to questions:** ChatGPT can be used as a virtual tutor, providing answers to students' questions and helping them understand difficult concepts.
3. **Enhancing language learning:** ChatGPT can be used to support language learning by generating text in different languages and providing translations.
4. **Generating creative writing prompts:** ChatGPT can be used to generate creative writing prompts, helping students improve their writing skills and creativity.
5. **Supporting research projects:** ChatGPT can be used to generate research proposals, summaries, and literature reviews, helping students with their research projects.

6. **Generating assessments and quizzes:** ChatGPT can be used to generate assessments and quizzes, providing a personalized and adaptive learning experience for students.

Challenges and threats posed by chatGPT in education

The visible face of ChatGPT, raises some red flags about teaching and/or school assignments and their validity. One of the most widespread fears these days is that students will use ChatGPT to complete school assignments and then copy and paste the answers without teachers being able to control this. However, this is based on certain assumptions, such as that teaching is limited to teachers repeating content and students learning to replicate it. If this were the case, ChatGPT would be the best of teachers and, at the same time, the best of students. Far from it, teachers and students may well enhance their capabilities and possibilities with the support of technologies such as AI, just as they once did with calculators for math. Their existence did not neutralize or threaten teaching; considering these risks, alternatives and strategies were sought to incorporate technology and the development of critical thinking and creativity into the teaching and learning processes. On the other hand, like any resource, neither ChatGPT in particular nor artificial intelligence in general will magically solve the sector's problems on their own. Just as they are not a threat, neither are they a solution. They are tools with the potential to be used in education. And, like any others, with their own scope and limitations.

Conclusions

In conclusion, the impact of Chat GPT on the future of education remains a disturbing concern. Especially the thinking skills would be the early victim. At this stage, it may not be feasible to predict exact future complications. However, one thing is sure Chat GPT is not the end of such disrupting technological inventions! Artificial General Intelligence (AGI), Explainable AI (XAI), Deep Reinforcement Learning (DRL), Transfer Learning etc., are even much more advanced technologies likely to hit us very soon. It's essential to establish the sensible application of technology by all

stakeholders, especially in the domain of education, to ensure that it enhances and supports human growth, learning and development. Till then, let us chit chat on GPT and keep experimenting with it.

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Entrepreneurship in India and Its Advancement Under 'Startup India' Scheme

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Abstract:

Entrepreneurship plays a significant role in the economic development of any country. Entrepreneurship is a process involving various actions to be undertaken to establish of an enterprise. Entrepreneurship acts as a pillar for the economic prosperity of a nation as it leads to generation of employment, contribution in national income, rural development, industrialization, technological development, export promotion etc. In India, various initiatives have been taken by the government from time to time for entrepreneurship development in the country. Entrepreneurship has attracted the attention of policymakers in India. A series of high-level initiatives, including Startup India, have been launched to promote private sector development. However, the role of entrepreneurship in development remains a mystery for many policy observers. The main purpose of this paper is to study about Entrepreneurship in India and its advancement under 'STARTUP INDIA' SCHEME. Startup India as a governmental plan is a comprehensive institutional support package to youths with unconventional business ideas in new areas. This study was done based on secondary data collected from multiple sources of evidence, in addition to books, journals, websites, and newspapers.

"Entrepreneurship is neither a science nor an art. It is a practice." – Peter Drucker

Key words: Entrepreneurship, Startup, Innovation, Development and Advancement

Introduction:

Entrepreneurship refers to the functions performed by an entrepreneur in establishing an enterprise. Entrepreneurship is considered as the engines for the development of economy and nation. Therefore to promote the entrepreneurial spirit among the people, particularly the youth of the country, Government of India under leadership of Honorable Prime Minister Sh. Narendra Modi has initiated a program known as "Startup India". This unprecedented initiative aims at addressing the structural constraints which hinder the growth of many potential businesses. Hence, Startup India is an attempt to provide maximum help and support for the newly established business organisation.

Thus, the main aim of this program is to create an employment base for every kind of job seeker whether they are skilled, semi-skilled or unskilled. Startup India in this context is an action plan which seeks to change the perception of people towards the government. The intent of the government is to encourage the people to convert their ideas into business organizations. There is generally a misconception that startup India is a programme especially designed for technology sector but in reality the ambit of the initiative is so large that it covers a wide array of other sector including manufacturing, education, healthcare, agriculture etc. Thus, through this initiative the government wants to extend the entrepreneurial spirit to the grass root level.

Literature Review

After the announcement and implementation of reforms the growth rate of the economy has risen up from single digit in the first

decade of the liberalisation to the two digit economic growth rate. Thus the importance of entrepreneurship has been realised and certain incremental steps are taken by the successive governments in this direction. Entrepreneurship is all about the identification of an opportunity, formation of new concerns, and pursue with new association (Carton et al. 1998). According to Wickham (2006) an entrepreneur needs to be innovative, visionary, and should be able to take risk. Entrepreneurs are described as individuals who can explore the environment, examine the alternatives, and capitalize them after proper analysis. J.S. Saini and B.S. Rathore (2001) in their book titled "Entrepreneurship: Theory and Practice", described the dependability of success of business on entrepreneur's desire to assume responsibility for his own actions. Intended outcomes may be obtained through learning from earlier experiences by directing the actions in the right way and consistent efforts will ensure the success. Dilip Gangopadhyay (2001) in his book Enterprise and Entrepreneurs has highlighted the vigorous association between them, and draw special attention towards development of entrepreneurship for the economic growth of a country. The dynamic process of venture formation involves various activities such as forming a business plan, obtaining resources, developing products, finding finance, government, infrastructural, market research, patenting, and legal support (Lebrasseur et al., 2003).

Objectives:

The study is based on the secondary data which has been collected through websites, newspapers, magazines, economic survey,

government reports, books, research papers etc. The study is based on following objectives:

1. To study in detail various reasons for encouraging entrepreneurship in India.
2. To analyze important challenges faced by India's entrepreneurship in general.
3. To study various steps taken by Government of India to support Innovation and Entrepreneurship in India

Reasons for encouraging entrepreneurship in India

Employment- India needs to create 1- 1.5 crore (10-15 million) jobs per year for the next decade to provide gainful employment to its young population. In the last few decades large business enterprises both public and private have not triggered the employment growth rate and it is not expected from them that they will do so in the coming years also. Similarly addition to increasing automation and digitization, the global economic slowdown has also effected the growth rate of the private sector corporations and hence there is a decline in employment in private sector. Support to new ventures with lower investment, innovative ideas and energized efforts may enable young entrepreneurs not only to increase India's innovation potential, but also creates employment.

Demographic Dividend- With similar demographic profile as US was having in 1960, the demographic dividend is unlikely to accrue to India as a large number of youth in the country lacks education and job to deliver this productivity. Harnessing the benefit of this demographic dividend will depend upon creation of a large number of jobs over the next decade. With 72 percent of the founders less than 35 years old, India is the youngest startup nation in the world. Thus, this demographic dividend is expected to definitely boost the startup culture in the country. If the growth continues in the same pace then it is expected that Indian startups will generate a plenty of jobs in the next five years.

Micro, Small and Medium Enterprises- Micro Small and Medium Enterprises (MSME) have contribution of 37.5 percent to the country's GDP. Hence, to promote self-employment as a means of job-creation and to encourage entrepreneurship for further job creation, facilitation, promotion, development and enhancement in the competitiveness of micro, small and medium enterprises. In nurturing entrepreneurship the importance of MSME sector can be realized by their forward-backward linkages with other sectors and low capital cost requirements.

Rural Economy-The Indian rural economy is mostly based on agriculture with a rampant disguised unemployment. Creation of new entrepreneurial firms employing the large unemployed youths and provision of the basic services like health, education etc. is one of the best ways to capture this market. Indian entrepreneurs are at a distinct advantage in comparison to foreign players entering the space and trying the same solutions.

Challenges Faced By Indian Entrepreneurs Before Starting Up

- 1) **Financial & cash flow management:** Getting your business funded is one of the main issues that all business face and have to tackle in order to survive. While you might have initial money saved up to start a business, they don't survive for long and you. A steady flow of cash is essential for small business to survive and you always need to have extra funds to take care of rainy and in-between days.
- 2) **Lack of Planning:** It's impressive the number of start-ups fails since they "failed to remember" to do the planning. Key locations like sales, development, and funding aren't afterthoughts. They need to all belong to your business plan right from the start. Not just that, however, you require to prepare for the important things you cannot prepare for, also.
- 3) **Hiring the right talent:** Particular abilities are important not just for your business to endure but for the expansion. Recognizing the specific abilities you require— as well as exactly how to obtain those crucial individuals aboard is very important. Not having the right people can produce extreme bottlenecks and also delay the rollout of new products or services. This is one of the issues that no start-up can afford, particularly in the early days.
- 4) **Effective marketing within a limited budget:** Some start-ups assume they can ignore marketing strategies entirely and hope that word of mouth will be sufficient. Being a start-up, it's essential to create visibility among your consumers. Effective marketing techniques within a limited budget should be made to reach your target audiences.
- 5) **Attractive Customers:** Many businesses have started with powerful ideas however could not survive simply because they failed to reach the right customers. There are several ways of reaching the right customers, however social media and SEO have proven to be useful tools for most. The entrepreneur should invest time in understanding the customer expectations and

if needed leverage their network to reach the customers.

6. **Making Decisions:** Decision-making in a business situation can be daunting, especially when there are so many things riding on each decision. Entrepreneurs can face a dilemma while making a decision, especially when they have limited information. Entrepreneurs must also guard themselves against getting overly involved in decision-making and causing a delay which may delay the progress. They can delegate the smaller decisions to their team of experts and ask them to come up with alternatives before evaluating options and finally deciding.
7. **Competition:** Every business faces competition, and entrepreneurs need to be prepared to compete in a crowded market. They need to differentiate their product or service and find ways to stand out from the competition to succeed in the market.

Government of India Support for Innovation And Entrepreneurship in India

Startup India: Through the Startup India initiative, Government of India promotes entrepreneurship by mentoring, nurturing and facilitating startups throughout their life cycle. Since its launch in January 2016, the initiative has successfully given a head start to numerous aspiring entrepreneurs. With a 360-degree approach to enable startups, the initiative provides a comprehensive four-week free online learning program, has set up research parks, incubators and startup Centres across the country by creating a strong network of academia and industry bodies. Facilitated Patent filing, Easy Compliance Norms, Relaxed Procurement Norms, incubator support, innovation focused program mmes for students, funding support, tax benefits and addressing of regulatory issues.

Atal Innovation Mission (AIM): AIM is the Government of India's endeavor to promote a culture of innovation and entrepreneurship, and it serves as a platform for promotion of worldclass Innovation Hubs, Grand Challenges, start-up businesses and other self-employment activities, particularly in technology driven areas. In order to foster curiosity, creativity and imagination right at the school, AIM recently launched Atal Tinkering Labs (ATL) across India. ATLs are workspaces where students can work with tools and equipment to gain hands-on training in the concepts of STEM (Science, Technology, Engineering and Math).

Jan Dhan- Aadhaar- Mobile (JAM): JAM, for the first time, is a technological intervention that

enables direct transfer of subsidies to intended beneficiaries and, therefore, eliminates all intermediaries and leakages in the system, which has a potential impact on the lives of millions of Indian citizens. Besides serving as a vital check on corruption, JAM provides for accounts to all underserved regions, in order to make banking services accessible down to the last mile.

Make in India: Designed to transform India into a global design and manufacturing hub, the Make in India initiative was launched in September 2014. It came as a powerful call to India's citizens and business leaders, and an invitation to potential partners and investors around the world to overhaul outdated processes and policies, and centralize information about opportunities in India's manufacturing sector. This has led to renewed confidence in India's capabilities among potential partners abroad, business community within the country and citizens at large.

Skill India- Through 'Skill India' mission, the government seeks to promote holistic development by equipping the youth with greater work skills. Bestowing the population with vocational education and training is a productive way of spreading skills at various levels and sub-sectors of industries for improving their employability. The establishment of National Skill Development Corporation (NSDC) is a step towards increased consciousness about the skill gap and a thrust towards increasing abilities of the people. Pradhan Mantri Kaushal Vikas Yojana is a major initiative started under the Skill India campaign.

The PMKVY will be implemented by Union Ministry of Skill Development and entrepreneurship through National Skill Development Council. It will provide skills training to youth, including class 10th and 12th drop outs and aims to cover about 24 lakh people. The target for skilling under the scheme will be associated with Union Government's flagship programme such as Make in India, Digital India, Swachh Bharat Abhiyan and National Solar Mission

Jan Dhan- Aadhaar- Mobile (JAM): JAM, for the first time, is a technological intervention that enables direct transfer of subsidies to intended beneficiaries and, therefore, eliminates all intermediaries and leakages in the system, which has a potential impact on the lives of millions of Indian citizens. Besides serving as a vital check on corruption, JAM provides for accounts to all underserved regions, in order to make banking services accessible down to the last mile.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY): A flagship initiative of the Ministry of

Skill Development & Entrepreneurship (MSDE), this is a Skill Certification initiative that aims to train youth in industry-relevant skills to enhance opportunities for livelihood creation and employability. Individuals with prior learning experience or skills are also assessed and certified as a Recognition of Prior Learning. Training and Assessment fees are entirely borne by the Government under this program

Trade related Entrepreneurship Assistance and Development (TREAD): To address the critical issues of access to credit among India's underprivileged women, the TREAD programme enables credit availability to interested women through non-governmental organizations (NGOs). As such, women can receive support of registered NGOs in both accessing loan facilities, and receiving counseling and training opportunities to kick-start proposed enterprises, in order to provide pathways for women to take up non-farm activities.

Digital India: The Digital India initiative was launched to modernize the Indian economy to makes all government services available electronically. The initiative aims to transform India into a digitally empowered society and knowledge economy with universal access to goods and services. This program aims to improve citizen participation in the digital and financial space, make India's cyberspace safer and more secure, and improve ease of doing business. Digital India hopes to achieve equity and efficiency in a country with immense diversity by making digital resources and services available in all Indian languages.

National Skill Development Mission: Launched in July 2015, the mission aims to build synergies across sectors and States in skilled industries and initiatives. With a vision to build a 'Skilled India' it is designed to expedite decisionmaking across sectors to provide skills at scale, without compromising on quality or speed. The seven sub-missions proposed in the initial phase to guide the mission's skilling efforts across India are: (i) Institutional Training (ii)

Infrastructure (iii) Convergence (iv) Trainers (v) Overseas Employment (vi) Sustainable Livelihoods (vii) Leveraging Public Infrastructure.

Findings and Conclusion

Entrepreneurship in India is still dominated by small enterprises. The Government of India has undertaken several initiatives and instituted policy measures to foster a culture of innovation and entrepreneurship in the country. Today, India has become fertile ground for breeding new entrepreneurs. Startup India, a government initiative, serves as a vital catalyst for fostering the growth of the startup culture and building an inclusive ecosystem for innovation and entrepreneurship in India. With various schemes and financial assistance provided to aspiring entrepreneurs, it aims to generate wealth and increase job opportunities within the Indian economy. The present ecosystem to support entrepreneurship in India is vibrant, which has fuelled the growth of entrepreneurship in India. It is thus an excellent opportunity for the younger aspirants to explore their areas of interest and work on them to turn them into realities.

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Digital Payments: Advancements, Challenges, and Implications

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Abstract:

Digital payments have revolutionized the way individuals, businesses, and governments conduct financial transactions. With the widespread adoption of smart phones, the growth of e-commerce, and the emergence of financial technology (fintech) companies, digital payments have gained significant momentum in recent years. This research paper examines the advancements in digital payment technologies, explores the challenges associated with their implementation, and discusses the implications of this transformative shift in the financial landscape.

Introduction

1.1 Background

Digital payments, also known as electronic payments or e-payments, refer to the exchange of money or financial transactions conducted through digital channels or electronic devices. The emergence and rapid development of digital payment systems have transformed the way individuals and businesses engage in financial transactions, offering convenience, speed, and security. From the early days of online banking to the proliferation of mobile payment applications and crypto currencies, digital payments have become an integral part of our modern financial ecosystem.

1.2 Objective

1. To provide a comprehensive analysis of the evolution, challenges, and future perspectives of digital payments.
2. To different types of digital payment methods, assessing their benefits and challenges, and discussing emerging trends and future directions.
3. To digital payment methods, including mobile payments, e-wallets, peer-to-peer payments, contactless payments, and crypto currencies.
4. To the benefits of digital payments, such as financial inclusion.
5. To digital payments continue to shape the financial landscape, understanding their evolution, challenges, and future prospects is vital for policymakers, financial institutions, businesses, and individuals.

2. Evolution of Digital Payments

2.1 Early Digital Payment Systems

The evolution of digital payments can be traced back to the emergence of electronic funds transfer (EFT) in the 1970s. Initially, EFT facilitated the transfer of funds between banks using telecommunication networks. This laid the

foundation for the development of electronic payment systems, which gradually expanded to include online banking and electronic fund transfers between individuals and businesses.

2.2 Emergence of E-commerce and Online Payments

The rise of the internet in the 1990s revolutionized the way people conducted business and paved the way for e-commerce. Online payment systems, such as credit and debit cards, became the primary means of conducting transactions over the internet. Secure protocols, such as Secure Sockets Layer (SSL) and Payment Card Industry Data Security Standard (PCI DSS), were implemented to protect sensitive payment information.

2.3 Mobile Payments and the Rise of Smart phones

The proliferation of smart phones and mobile applications led to a significant shift in the digital payments landscape. Mobile payment solutions, such as Near Field Communication (NFC) and Quick Response (QR) codes, enabled users to make payments using their mobile devices. Companies like Apple with Apple Pay, Google with Google Pay, and Samsung with Samsung Pay introduced digital wallets that allowed users to store payment information securely on their smart phones.

2.4 The Role of Fin Tech Companies

The emergence of financial technology (Fin Tech) companies disrupted the traditional financial sector by introducing innovative digital payment solutions. These companies leveraged technology to offer alternative payment methods, such as peer-to-peer (P2P) payments, e-wallets, and mobile banking applications. Fin Tech players, like PayPal, Venmo, and Square, gained popularity by providing seamless and convenient payment experiences to users.

2.5 Crypto currencies and Block chain Technology

The advent of crypto currencies, starting with Bit coin in 2009, introduced a decentralized form of digital payments. Crypto currencies leverage block chain technology to enable secure

and transparent transactions without the need for intermediaries. Block chain ensures the immutability and integrity of transaction records, enhancing security and trust in digital payments. Other crypto currencies, like Ethereum and Ripple, further expanded the possibilities of digital payments by introducing smart contracts and fast cross-border transactions.

The evolution of digital payments has been characterized by advancements in technology, increasing consumer adoption, and the disruptive influence of innovative FinTech solutions. From early electronic fund transfers to the widespread use of mobile payment apps and the introduction of crypto currencies, digital payments have undergone a transformative journey, revolutionizing the way individuals and businesses transact in the modern era.

3. Types of Digital Payments

Digital payments encompass a range of methods and technologies that enable individuals and businesses to conduct financial transactions electronically. Here are some of the prominent types of digital payment methods:

3.1 Mobile Payments

Mobile payments refer to transactions conducted through mobile devices, typically smartphones or tablets. These payments can be made using various technologies, such as Near Field Communication (NFC), Quick Response (QR) codes, or mobile banking applications. Examples of popular mobile payment solutions include Apple Pay, Google Pay, Samsung Pay, and Ali Pay. Mobile payments offer convenience and flexibility, allowing users to make payments on the go using their smart phones.

3.2 E-wallets and Digital Wallets

E-wallets, also known as digital wallets, are virtual wallets that store payment information securely. Users can link their credit or debit cards, bank accounts, or crypto currencies to their e-wallets, eliminating the need to carry physical cards. E-wallets enable quick and seamless transactions by securely storing payment credentials and facilitating contactless payments. Examples of e-wallets include PayPal, Venmo, and Paytm.

3.3 Peer-to-Peer (P2P) Payments

P2P payments enable individuals to transfer funds directly to each other without the involvement of traditional financial institutions. These payments can be made using mobile apps or online platforms. P2P payment providers, such as Venmo, Zelle, and Cash App, facilitate the transfer of funds between individuals by linking their bank

accounts or debit cards. P2P payments are commonly used for splitting bills, paying friends or family, or making informal transactions.

3.4 Contactless Payments

Contactless payments utilize Near Field Communication (NFC) technology to enable transactions by simply tapping or waving a contactless-enabled card or mobile device near a payment terminal. Contactless payments provide a faster and more convenient way to pay, especially for small-value transactions. Popular contactless payment methods include contactless credit and debit cards, mobile payment apps like Apple Pay and Google Pay, and wearable devices with payment capabilities.

3.5 Crypto currencies

Crypto currencies, such as Bit coin, Ethereum, and Lite coin, have gained significant attention as a form of digital payment. These decentralized digital currencies utilize block chain technology to secure transactions and eliminate the need for intermediaries like banks. Crypto currencies enable peer-to-peer transactions globally, offering increased privacy, security, and reduced transaction fees compared to traditional payment systems. Crypto currency wallets and exchanges facilitate the storage and exchange of digital currencies.

These are just a few examples of the diverse range of digital payment methods available today. The continuous advancement of technology and the growing demand for seamless and secure transactions are driving the development of new and innovative digital payment solutions. As the digital payments landscape evolves, we can expect to see further integration of different payment methods and the emergence of more convenient and efficient ways to conduct electronic transactions.

4. Benefits of Digital Payments

Digital payments offer numerous advantages for individuals, businesses, and the overall financial ecosystem. Here are some of the key benefits associated with digital payments:

4.1 Financial Inclusion and Accessibility

Digital payments have the potential to enhance financial inclusion by providing access to formal financial services for underserved populations. With digital payment solutions, individuals who previously had limited access to traditional banking services can now participate in the digital economy. Digital wallets and mobile payment apps enable users to store and transfer funds, make purchases, and pay bills, empowering them with financial independence and inclusion.

4.2 Efficiency and Cost-Effectiveness

Digital payments streamline the transaction process, reducing the need for physical cash or manual paperwork. Compared to traditional payment methods, such as cash or checks, digital payments are faster and more efficient, enabling instantaneous transactions. Additionally, digital payments eliminate the costs associated with printing and handling physical currency, reducing expenses for businesses and financial institutions.

4.3 Security and Fraud Prevention

Digital payments often incorporate robust security measures to protect sensitive payment information. Encryption technologies and tokenization ensure that payment data is transmitted securely, reducing the risk of fraud and unauthorized access. Moreover, digital payment methods, such as contactless payments or mobile wallets, utilize additional security features like biometric authentication (e.g., fingerprint or facial recognition) or two-factor authentication, adding an extra layer of protection for users.

4.4 Convenience and User Experience

Digital payments offer convenience and a seamless user experience. With mobile payment apps or e-wallets, individuals can make transactions anytime, anywhere, using their smartphones or other connected devices. The ability to store multiple payment methods in a single digital wallet eliminates the need to carry physical cards, simplifying the payment process. Additionally, digital payments often provide features like transaction history tracking, automated bill payments, and loyalty program integration, enhancing convenience for users.

4.5 Data Analytics and Personalization

Digital payments generate a wealth of transaction data that can be leveraged for data analytics and personalized services. Businesses can gain insights into customer spending patterns, preferences, and behavior, allowing them to tailor their offerings and marketing strategies. Data analytics also enable the identification of potential fraudulent activities, helping in the prevention and detection of financial crimes. Moreover, personalized offers, discounts, and rewards based on individual spending habits can be provided to enhance the customer experience.

The benefits of digital payments extend beyond individuals and businesses. They contribute to economic growth, promote financial inclusion, and drive innovation in the financial sector. As digital payment technologies continue to evolve and gain wider adoption, these benefits are expected to further enhance the efficiency, accessibility, and security of financial transactions.

5. Challenges and Concerns

While digital payments offer numerous benefits, they also come with their own set of challenges and concerns. Addressing these challenges is crucial to ensure the widespread adoption and secure implementation of digital payment systems. Here are some of the key challenges and concerns associated with digital payments:

5.1 Cyber security and Fraud

One of the primary concerns with digital payments is cybersecurity. As transactions are conducted electronically, there is a risk of unauthorized access, data breaches, and cyberattacks. Cybercriminals constantly target digital payment systems to steal sensitive payment information, leading to financial losses and privacy breaches. Implementing robust security measures, such as encryption, tokenization, and multi-factor authentication, is essential to protect against cyber security threats.

5.2 Privacy and Data Protection

Digital payments involve the collection and storage of personal and financial data. Privacy concerns arise regarding the use, storage, and sharing of this data by payment service providers and other entities involved in the payment ecosystem. Safeguarding personal information and complying with data protection regulations, such as the General Data Protection Regulation (GDPR), are essential to maintain trust and protect user privacy in digital payment transactions.

5.3 Regulatory and Legal Issues

The regulatory landscape for digital payments is complex and continually evolving. Different countries and jurisdictions have varying regulations and compliance requirements for digital payment service providers. Regulatory challenges include licensing, anti-money laundering (AML) and know your customer (KYC) regulations, consumer protection, and cross-border transactions. Adhering to these regulations and ensuring compliance is critical to maintain the integrity and trustworthiness of digital payment systems.

5.4 Technological Infrastructure and Interoperability

Digital payments rely on robust technological infrastructure and interoperability between different payment systems. Ensuring compatibility and seamless integration between various platforms, banks, and payment providers can be a challenge. Lack of interoperability can lead to transaction failures, delays, and inconvenience for users. Building and maintaining a reliable and scalable infrastructure that supports

interoperability is crucial to foster the smooth functioning of digital payment systems.

5.5 Digital Divide and Inequality

While digital payments offer numerous benefits, not everyone has equal access to digital payment infrastructure and technology. The digital divide, including limited access to smart phones, internet connectivity, or financial services, can hinder the adoption and usage of digital payments, particularly in underserved and rural areas. Bridging the digital divide and promoting digital literacy and inclusion are essential to ensure that everyone can benefit from the advantages of digital payments.

Addressing these challenges requires collaboration between policymakers, financial institutions, technology providers, and regulatory bodies. Continuous efforts to enhance cyber security measures, strengthen data protection, establish clear regulations, and promote financial inclusion will contribute to building a secure, trustworthy, and inclusive digital payment ecosystem.

6. Future Perspectives

The future of digital payments holds immense potential for further transformation and innovation. Here are some key future perspectives that are expected to shape the landscape of digital payments:

6.1 Integration of Artificial Intelligence (AI)

Artificial Intelligence (AI) has the potential to revolutionize digital payments by enabling advanced fraud detection, risk assessment, and customer authentication. AI-powered systems can analyze vast amounts of data in real-time, helping identify patterns and anomalies to detect fraudulent activities. Moreover, AI chat bots and virtual assistants can enhance customer support and provide personalized recommendations, enhancing the user experience in digital payments.

6.2 Block chain Technology and Crypto currencies

Block chain technology is likely to play a significant role in the future of digital payments. Its decentralized and transparent nature can provide enhanced security, immutability, and traceability to transactions. Crypto currencies, backed by block chain technology, may gain wider adoption as they offer faster, cheaper, and borderless transactions. Furthermore, central bank digital currencies (CBDCs) are being explored by several countries, which can potentially transform the way governments issue and regulate digital currencies.

6.3 Internet of Things (IoT) Integration

The Internet of Things (IoT) can revolutionize digital payments by enabling

seamless and secure transactions between interconnected devices. IoT devices, such as smart appliances, wearables, and connected vehicles, can initiate payments autonomously, eliminating the need for human intervention. For example, a refrigerator could automatically order groceries and make payment arrangements. IoT integration in digital payments will require robust security measures to safeguard the privacy and integrity of transactions.

6.4 Biometric Authentication

Biometric authentication, such as fingerprint scanning or facial recognition, is expected to become more prevalent in digital payments. Biometric authentication offers enhanced security and convenience, eliminating the need for passwords or PINs. As biometric technology continues to advance and become more accurate, it can provide a frictionless and secure authentication method for digital payment transactions.

6.5 Enhanced Data Analytics and Personalization

Data analytics will continue to play a vital role in digital payments. Advanced analytics and machine learning algorithms can analyze transaction data to gain valuable insights into customer behavior, preferences, and spending patterns. This data can be used to offer personalized recommendations, targeted promotions, and customized loyalty programs, enhancing the user experience and driving customer engagement in digital payments.

6.6 Continued Focus on Security and Privacy

As the digital payment ecosystem expands, there will be an increased emphasis on security and privacy. Payment service providers and financial institutions will continue to invest in advanced security measures, encryption technologies, and fraud prevention systems to protect against evolving cyber threats. Moreover, there will be a greater focus on ensuring user privacy, transparency, and compliance with data protection regulations to build trust in digital payment systems.

The future of digital payments is characterized by continuous innovation, integration of emerging technologies, and a shift towards seamless, secure, and personalized transaction experiences. Embracing these future perspectives will drive the evolution of digital payments, empowering individuals and businesses with more efficient, inclusive, and secure financial transactions.

7. Conclusion

Digital payments have undergone a remarkable evolution, transforming the way

individuals and businesses transact in the modern era. From the early days of electronic fund transfers to the emergence of mobile payments, e-wallets, and cryptocurrencies, digital payments have revolutionized the financial landscape. They offer numerous benefits, including financial inclusion, efficiency, security, convenience, and personalized experiences.

However, digital payments also come with their own set of challenges and concerns. Cyber security, privacy, regulatory compliance, technological infrastructure, and digital divide are among the key areas that require attention and continuous improvement. Addressing these challenges is crucial to ensure the widespread adoption and secure implementation of digital payment systems.

Looking towards the future, there are exciting prospects for digital payments. Integration of technologies such as AI, block chain, IoT, and biometric authentication will further enhance security, efficiency, and convenience. Data analytics and personalization will enable tailored

services and improved customer experiences. The focus on security and privacy will remain paramount to maintain trust in digital payment systems.

As digital payments continue to evolve, collaboration between stakeholders including policymakers, financial institutions, technology providers, and regulatory bodies will be essential. By addressing challenges, embracing innovation, and promoting financial inclusion, we can shape a future where digital payments are seamlessly integrated into our daily lives, empowering individuals and businesses with efficient, secure, and personalized financial transactions.

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A Study Of Digital Marketing And Its Impact

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Abstract

The world is shifting from analog to digital and marketing is no exception. As technology development is increasing, the use of digital marketing, social media marketing, search engine marketing is also increasing. Internet users are increasing rapidly and digital marketing has profited the most because it mainly depends on the internet. Consumer's buying behavior is changing and they are more inclined towards digital marketing rather than traditional marketing. The purpose of this review paper is to study the impact of digital marketing and how important it is for both consumers and marketers. This paper begins with an introduction of digital marketing and then it highlights the mediums of digital marketing, the difference between traditional and digital marketing, and the pros, cons, and importance of digital marketing in today's era.

As the world transitions from analogue to digital, so does marketing. Digital marketing, social media marketing, and search engine marketing are all becoming more and more popular as technology advances. The number of internet users is rising quickly, and as digital marketing relies heavily on the internet, it has benefited the most. Consumers are altering how they make purchases, and they prefer digital marketing to conventional marketing. This review paper's goal is to investigate the significance of digital marketing for both consumers and advertisers. This essay starts with a brief introduction to digital marketing before focusing on the various forms it may take, the ways in which it differs from traditional marketing, as well as its advantages and disadvantages as well as its significance in the modern world.

Introduction

Marketing overviews the actions a business makes to get customers to buy any commodity or services. Through the use of marketing, the business looks for clients or consumers for its goods or services. Any marketing of a good or service that takes place online is referred to as digital marketing. For instance, marketing on tablets, laptops, cellphones, and other digital devices. Digital marketing is a type of direct marketing that uses interactive media like email, websites, online forums, newsgroups, interactive television, mobile communications, etc. to connect buyers and sellers electronically.

The phrase "digital marketing" was originally used in the 1990s. The terms online marketing, internet marketing, and web marketing are alternatively used for digital marketing. Because of the rapid expansion of digital marketing alongside the advent of the internet, it is known as "internet marketing." The main benefit of digital marketing is that it enables businesses to offer their goods and services around-the-clock, 365 days a year, at a reduced cost, with more efficiency, in order to increase sales and provide better customer service. Due to its high level of connection, it facilitates many-to-many conversations and is typically used to offer services or goods in a quick, pertinent, private, and cost-effective manner.

Around 1.1 billion people used the internet in 2005, making up 16.6% of the world's population. Around 4.8 billion people will be online in 2020, and the population's proportion has climbed to 62

%. Additionally, there is a clear link between the internet and digital marketing. With the biggest percentage of internet users, nations like India and China have a unique opportunity.

Objective of the study

- Toknow the various outlets of digital marketing.
- To A contrast between traditional and digital marketing.
- To Importance of digital marketing.
- To Advantages and disadvantages of digital marketing.
- To Challenges digital marketer face.

Research Methodology

This paper is totally based on secondary data. Secondary data has collected from various book, journals, government reports and articles. Researchers has taken Impact of Human Resources Management on Organizational Performance for study purpose.

VARIOUS CHANNELS OF DIGITAL MARKETING

The several channels that make up digital marketing are the mediums that marketers utilise to advertise their goods and services. The primary goal of an advertiser is to choose the channel that will provide the greatest message and the highest return on investment (ROI). The following is a list of significant digital marketing channels:

- Social Media
- Email Marketing

- Affiliated Marketing
- Search Engine Marketing
- Online Display Marketing

Social Media

Social media marketing is currently one of the most significant forms of digital marketing. It is the digital channel with the quickest growth. The technique of driving traffic to websites or blogs through social media platforms is known as social media marketing. Social media marketing, in Neil Patel's words, is the practice of developing content specifically for each social media platform in order to encourage user interaction and sharing. Social media marketing has profited the most from the rise in the percentage of internet users in the population, which has risen from 16.6 to 62 percent in 15 years.



Source: Internet

- 1) **Facebook:** it is the most popular social networking site. An organisation may use Facebook to advertise its goods and services.
- 2) **LinkedIn:** Professionals may create and share profiles on LinkedIn. LinkedIn connects these two links by having the business also construct their profile.
3. **Google+:** This is Google's social network, where users may quickly connect based on friendship and shared interests.
- 4) **Twitter:** Its goal is to promote conversions, gain more leads, and increase brand recognition and sales.
- 5) **Pinterest:** This social networking site offers visual information that users may share or keep for later use.

Email

Email continues to be a channel that generates medium to high returns on investment for businesses for a number of reasons, but one of them is email's adaptability. Even if email may not be the most recent technology, you can still use it to implement the newest content marketing trends, like personalisation and automation, without having to cut back on your marketing budget. It's hardly surprising that 73% and 63% of B2B marketers, respectively, agree that email is their top tool for

generating leads and driving revenue, given that email also has the capacity to assist other marketing objectives.

Email benefits you in a wide range of other ways as well, including the following:

- In 2020, there were 3.9 billion users of email worldwide. By 2023, that number is projected to increase to 4.3 billion users, or more than half of the world's population.
- Email continues to yield the best results, with 73% of survey participants rating the channel as outstanding, compared to 72% and 67% for SEO and paid search, respectively.
- You may anticipate a \$42 average return on investment for every \$1 spent on email marketing.
- Approximately 62% of opens occur on a mobile device, vs 10% on a desktop.

Affiliate Marketing

In affiliate marketing, the parent business pays affiliates for each customer or website visitor their marketing initiatives or strategies on the firm's behalf result in. In Pat Flynn's book Smart Passive Income, "Affiliate marketing is the practise of obtaining a commission by advertising the goods of other people (or businesses). You discover a product you enjoy, spread the word about it, and share in the revenue from each sale".

- 1) **The Merchant:** The seller, the brand, or the merchant may occasionally be the culprit. To sell, this group created a good. It might be a person, a small business, or a well-known corporation.
- 2) **The Affiliate,** sometimes referred to as a publisher. Additionally, it might be a person, a startup, or a large Fortune 500 firm. For each service or item they sell, they receive a commission from the vendor. Customers are brought to the merchant by the affiliate.
- 3) **The Client:** The client, or consumer, is a crucial component of the entire system. They visit affiliates, and the affiliates use his commission to steer them to retailers. The affiliate cannot receive a commission in the absence of a consumer.
- 4) **The Network:** The network serves as a go-between for affiliates and merchants. A network is necessary for affiliates to advertise goods or services.

Search Engine Marketing

A search engine is an online tool that aids users in finding the information they need. Search engines include Google, Yahoo, Bing, Baidu, and others. Any effort that raises a user's website's ranking in a search engine is referred to as search engine marketing. Search engine marketing comes

in two flavours: sponsored search and search engine optimization (SEO).

The art of ranking highly in the unpaid portion of a search engine, according to Neil Patel, is known as search engine optimization. It also goes by the names organic listing or organic marketing. In general, a website will receive more visits the higher it ranks in the search results. In terms of SEO, there is a search engine and a searcher. Additionally, Google accounts for 67% of all searches. Consequently, Google is the most significant search engine on the planet.

In sponsored search, one must pay to go up the search engine results page. One will use the same terms in sponsored search as they would in an organic marketing campaign. A commercial search engine like Google, Yahoo, Bing, etc., runs the bulk of a paid search engine. Paid search uses a pay-per-click business model, in which advertisers only pay when a customer clicks on their advertisement. Based on the advertiser's bid and quality score, the search engine algorithm will decide where the advertiser's ad will appear. Due of its potential to produce results more quickly, sponsored search is frequently preferred by marketers over SEO in the near term.

Online Display Advertising

Traditional marketing involves placing a billboard or banner advertising a firm on each side

of the road, as well as placing an advertisement in a magazine or newspaper. An online variant of it is display advertising. Today, a marketer may accomplish the same goal by using online display advertising. Display advertising comes in a variety of forms, including banner advertisements, interactive ads, rich media, and video commercials. Due of the graphics in the adverts, display advertising is excellent at capturing the eye.

An audience can be targeted by an online display advertiser depending on factors such as website content, region, gender, age, and device type. As a result, the marketer may display an appropriate advertisement to the appropriate customer, so reducing the budget and improving sales.

COMPARISON BETWEEN TRADITIONAL AND DIGITAL MARKETING

The most well-known type of marketing is traditional marketing. Due of its duration, conventional marketing is familiar to the majority of people. Ads in a newspaper or magazine are a physical illustration of conventional marketing. A billboard, brochure, radio or TV advertisement, poster, etc. are also included. This method of marketing is not digital. While digital marketing reaches clients through a variety of digital media.

Parameters	Traditional Marketing	Digital Marketing
Basics	It describes the process of advertising a good or service through conventional channels such as the phone, television, radio, print media, banners, sponsorship, door-to-door campaigns, and many more.	It describes the process of advertising a good or service via the use of contemporary techniques and digital media, including SEO, SEM, PPC, Adwords, affiliate marketing, and many more.
Cost of Marketing	Costlier traditional marketing strategies. This choice is not very economical.	Most of the time, digital marketing is economical. It is occasionally free, like in the case of social media marketing.
Branding	It is not a wise choice in terms of branding.	It is a better strategy for branding.
Ease of Learning	Traditional marketing strategies are simple to understand, put into practise, experiment with, and use.	The simplicity of learning digital marketing depends on an individual's exposure to internet information, awareness of technologies, and experience in the sector.
Measurement of Effectiveness	How well your traditional marketing effort is reaching the general public is difficult to gauge.	Using numerous analytical tools like SEMRush, Google Analytics, etc., it is simple to assess the success of your digital marketing strategy.
Examples	Advertising methods used in traditional marketing include door-to-door campaigns, broadcast commercials, radio ads, TV ads, banner ads, print ads, sponsorships, and more.	Digital marketing is carried out through a variety of strategies, including SEO (Search Engine Optimization), SMM (Social Media Marketing), SEM (Search Engine Marketing), PPC (Pay Per Click) Ads, content marketing, web design, email marketing, SMS marketing, push notifications, and more.

Advantages of Digital Marketing

The primary benefit of digital marketing is the cost-effective and measurable method in which a specific audience can be addressed. Brand loyalty

will rise, and online sales will increase, among other benefits of digital marketing.

Global reach: For a minimal investment, a website may help you discover new markets and conduct business internationally.

Less expensive – Compared to traditional marketing strategies, a well-planned and well-targeted digital marketing campaign may reach the relevant clients for significantly less money.

Results that can be tracked and measured – Determining the success of your internet marketing effort is made simpler by using web analytics and other online metre tools. You may get in-depth details on how visitors interact with your website or react to your advertising.

Personalization enables you to welcome site visitors with pertinent offers if your customer database is connected to your website. You can better define your consumer profile and market to them as they make more purchases from you.

Openness – by participating in social media and using it wisely, you may win over customers and develop a reputation for being approachable.

Social currency - employing content marketing strategies, digital marketing enables you to develop compelling campaigns. These materials (pictures, movies, and articles) have the potential to go viral and earn social currency.

Improved conversion rates- a website puts your clients just a few clicks away from completing a purchase, which increases conversion rates. Digital marketing has the potential to be seamless and quick, unlike conventional media that need consumers to get up and make a phone call or visit a store.

Disadvantages of digital marketing

Skills and training - You must make sure that your personnel is equipped with the information and skills necessary to successfully engage in digital marketing. Keep up with the latest trends, platforms, and tools since they change quickly.

Time consuming It might take a lot of time to complete things like optimising internet advertising campaigns and developing marketing content. To guarantee a return on investment, it's critical to measure your performance.

High level of competition - although internet marketing allows you to access a worldwide audience, you will still face international rivalry. The countless messages sent to consumers online might make it difficult to stand out from the competition and attract attention.

Complaints and feedback - Through social media and review websites, your audience may observe any unfavourable comments or criticism of your business. It might be difficult to provide efficient customer service online. Negative feedback or a

poor response might harm the reputation of your brand.

Security and privacy issues there are a number of legal problems around the collection and use of client data for the purposes of digital marketing. Security and privacy concerns.

Importance & Benefits of Digital Marketing

1. Better Small Business Growth Options

The benefit of digital marketing for businesses is the ability to customise your marketing strategy to fit your budget and reach more customers for less money. Getting your product advertised, especially for a small firm, was a challenge even a decade ago. They were forced to use low level techniques with a nearly nonexistent chance of success.

2.Increased Conversion Rate

Businesses that use digital marketing are able to assess the conversion rate in real-time by employing a straightforward strategy. This measures the proportion of viewers who turn into leads, subscribers, and ultimately make a purchase of the service or commodity. The ability to quickly and effectively establish a communication connection with the customer allows SEO, social media marketing, and email marketing to have high conversion rates.

3. Creating a Brand's Reputation

The one thing that each company must focus on in order to thrive is building an outstanding reputation. It has been clear in recent years that clients would always choose a business without any controversies attached to it. Today's digital marketing is significant since it gives you several opportunities to build a personal connection with your consumer base.

4. Resolving client issues

You may always provide the consumer with solutions to their issues and get them to relate to your product through social media, email marketing, or even live chat access. Your website and social media pages may simply be transformed into a location where customers can ask questions, offer recommendations, and therefore elevate their relationship with you.

5. Growing Trust in Your Brand

Customers have the choice to review your services based on their degree of experience thanks to the availability of your brand and service across many platforms. The new ones instantly convert when a happy consumer leaves a nice and encouraging review. This, in turn, causes the brand to develop a strong reputation in the eyes of prospective customers, increasing conversion rates.

6. Increased Return on Investment

Prior to today, each type of marketing media was given a separate budget allocation. However, the situation has advanced. Even a little investment made in an email marketing strategy has the ability to provide outcomes in terms of increased consumer interaction. Business owners may determine whether your website is producing the best return on investment by using web analytics.

7. Digital marketing is affordable.

Before entering the "green zone" and beginning to turn a profit, a small firm must accumulate its resources. You have the ability to reach a lot of clients at once with digital marketing, and you can do it on a budget. You may design your marketing approach so that you only employ spending-friendly channels. You should always focus on your specific consumers if money is an issue.

8. Possibility of Increasing Revenues

The opportunity to make money is substantially greater because less money was invested and the ROI was better. According to a research by IPSOS Hong Kong and Google, digital marketing is proven to create 2.8 times more income when compared to traditional approaches. This, together with the higher conversion rates here, guarantees that you start making money as soon as you join the competition.

9. Automated Marketing Methods

Traditional marketing makes it exceedingly difficult to track past performance, but when digital marketing strategies are used, every step of success can be measured. Since it demonstrates the effectiveness of each and every approach employed, digital marketing operates in real-time. By doing this, you may select the strategies that produce the best outcomes. Following that, you may quickly alter your campaigns for higher results.

10. Simple Tactics and Strategy Adaptation

The fact that web marketing is so simple to grasp is another significant benefit. The outcomes of your strategies make it clear which one is working for you and which one isn't. Results from strategies used in online marketing are available immediately.

Conclusion

It is impossible to deny that the world is rapidly transitioning from a simple to a digital one. People are investing more money in online content, and businesses who find it difficult to incorporate this reality into their advertising plan must swiftly adapt. The amount of time people spend online each year increases, and as a result, the role that

digital platforms play in their lives also increases. The promotion of digital media is the primary goal of digital India. Because customers may utilise digital platforms from anywhere in the world at any time, businesses must switch from traditional to digital marketing strategies. In the unlikely case that businesses don't use the internet to market their goods and services, they won't be able to compete and will eventually go out of business.

Customers who wish to purchase any goods online may simply obtain product information and do product comparisons without having to go to a physical store or shopping centre. It demonstrates that people are more likely to buy things online than in physical stores. Companies must adapt their advertising strategies and utilise new channels for marketing as customer purchasing habits change.

People are investing more money in online content, and businesses who find it difficult to incorporate this reality into their advertising plan must swiftly adapt. The amount of time people spend online each year increases, and as a result, the role that digital platforms play in their lives also increases. The promotion of digital media is the primary goal of digital India. Because customers may utilise digital platforms from anywhere in the world at any time, businesses must switch from traditional to digital marketing strategies.

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Environmental Situation in Current Scenario

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Abstract

Environmental problems have adverse effects on human health. Current major environmental issues may include climate change, pollution, environmental degradation and resource depletion. We faced many problems in public health. It's easy to put waste in the trash can. The more people there are on the planet, the more they release carbon dioxide and other gases into the air. Biodiversity, or the variety of life in the world or specific ecosystems, is declining. Biodiversity levels across the board have significantly decreased to alarming levels. Potable water can be contaminated by things like airborne diseases, toxins, and hazardous chemicals. An estimated 780 million people have no access to clean water at all. Swachh Bharat Abhiyan is a nationwide campaign in India for the period 2014 to 2019. The National Green Tribunal Act, 2010 (NGT) is an Act of the Parliament of India which enables the creation of special tribunals for expeditious disposal. Cases related to environmental issues.

Key Words: Swachh Bharat Abhiyan, National Green Tribunal etc.

Introduction

Environmental problems have adverse effects on human health. Environmental conservation is the practice of protecting the natural environment at the individual, institutional or governmental level for the benefit of both the environment and humans. Environmentalism, a social and environmental movement, addresses environmental issues through advocacy, education, and activism.

Challenges in Current Scenario

Current major environmental issues may include climate change, pollution, environmental degradation and resource depletion etc. The conservation movement lobbies for the protection of endangered species and any ecologically valuable natural areas, genetically modified food and global warming.

List some of the world's environmental challenges.

Public Health

We faced many problems in public health. Pollution, water scarcity, and overpopulation all pose a clear threat to public health. According to the WHO, one in four deaths each year is directly attributable to an unhealthy environment.

Even in developed countries, the growing anti-vaccination movement threatens public health, leading to the resurgence of diseases such as measles that were almost completely eradicated. Human health and wellness is an important issue.

Waste Disposal

It's easy to put waste in the trash can. We don't usually think about our local landfills unless we complain about the stench when we drive by, but the average person produces 4.6 pounds of trash every day. It ends up in landfills or it ends up in

ecological habitats and the ocean. Waste disposal poses a threat not only to the earth and its environment, but also to human beings. When waste is in the ocean, the ocean dwellers mistake it for food or get tangled up in it. When waste is disposed of via burning or nuclear, it emits hazardous toxins in the air, which people breathe in.

Overpopulation

More people there are on the planet, the more they release carbon dioxide and other gasses into the air. The growing population comes with the cost of greenhouse gasses and climate change. Until people realize that they have a direct impact on these pressing environmental issues, their behavior won't change. Resources aren't always sustainably sourced, but without those resources, the population won't survive. Hopefully, we don't realize this too little too late. Fortunately, renewable energy sources are a great way to combat carbon emissions. By raising the amount of sustainable energy such as wind power and solar power, the resources needed can be sustainably sourced, reducing carbon emissions. You can't change the population, but you can change what the population emits into the environment.

Loss of Biodiversity

Biodiversity, or the variety of life in the world or a particular ecosystem, is declining. The levels of biodiversity across the board have significantly lowered to a dangerous amount. According to the World Wildlife Federation, biodiversity has declined 27 percent in the last three decades. Biodiversity is in critical condition due to various threats including urban sprawl, deforestation, and climate change. The lack of biodiversity puts the food chain, water sources and other resources at risk. Without enough biodiversity, ecosystems deteriorate until they no

longer exist. The world just can't afford the cost of biodiversity loss. Education and protection are the keys to combating biodiversity loss. Think with a sustainable mind. Make green choices. Spread the word.

Water Scarcity & Water Pollution

Potable water can become contaminated with things such as airborne diseases, toxins, and hazardous chemicals. An estimated 780 million people have no access to clean water at all. This isn't just a problem in undeveloped countries through. The 2017 drought in California, and the fact that Flint, Michigan hasn't had clean water in nearly four years, serves as the perfect example to show us that water scarcity and pollution isn't just a problem everywhere else it's a problem here at home too. Like the Earth, your body is made up of a lot of water, too. Both land and your body need clean water to survive.

Pollution

Pollution comes in many forms. Air, soil, and water all have the capability to be polluted. Pollution poses a current and future threat to people and the environment. Contaminated waters are undrinkable. Polluted air weakens the ozone layer and causes health problems. Contaminated soil destroys habitats and irrigation. As a human, your body is majorly affected by pollution if it's in the air you breathe or the water you drink. Pollution puts animals and the environment in critical condition that only humans can restore.

Deforestation

The greenhouse gas emissions don't come from cars or factories they come from deforestation. By 2030, we may only have 10 percent of the rainforests left the rest have been cut down for wood or wood pulp products, or cleared for agricultural uses.

In addition to this, more than 70 percent of the planet's plant and animal species live in forests. Species lose their habitat. Ecosystems die out. Climate change continues. There are fewer trees to produce oxygen and absorb carbon dioxide. It's all due to deforestation. Lumber and land are leading reasons people cut down forests, but no idea is good enough if it means someday there won't be any forests left. Deforestation has many side effects people don't realize.

Swachh Bharat Abhiyan

The Swachh Bharat Abhiyan or Swachh Bharat Mission is a nationwide campaign in India for the period 2014 to 2019 aimed at cleaning roads, streets and infrastructure in cities, towns and rural areas of India. To inculcate the importance of

cleanliness among the people, Government of India has launched Swachh Bharat Abhiyan, so this machine is playing an important role in this campaign and making Swachh Bharat Abhiyan.

National Green Tribunal(NGT)

The National Green Tribunal Act, 2010 (NGT) is an Act of the Parliament of India which enables the creation of special tribunals for expeditious disposal of cases related to environmental issues. It draws its inspiration from India's constitutional provision Article 21, which guarantees citizens of India the right to a healthy environment.

Conclusion

A dedicated jurisdiction of the Tribunal and the Pollution Control Board in environmental matters will provide speedy environmental justice and help reduce the caseload in the High Courts. The Tribunal shall not be bound by the procedure prescribed under the Code of Civil Procedure, 1908 but shall be guided by the principles of natural justice.

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Virtual Lab

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Abstract:

Virtual laboratory is a platform at which certain practical's can be performed virtually. Virtual lab emerges as an excellent tool for education purpose for learners. Thus, by usage of this virtual lab platform students can perform practical as given by the teacher as well as they can give feedback. Having this concept of virtual lab into consideration we propose a unique virtual laboratory as a web application for mechanical engineering department at which students can perform practical's and also keep record of their performance activity. In this virtual lab we provide simulation, open source and videos for students. Simulations are of practical's which are provided by the university. Some subject's practical need specific software to perform their practical, so for such we provide open source at which students perform seamlessly. But there are some subjects which doesn't have open sources, so to eliminate such limitation videos are made and uploaded on virtual lab. By inculcating these all aspects in virtual lab, enthusiasm towards practical education for students will increase. Thus, improving understanding of process in practical will increase parallel.

Introduction

Virtual Labs is a project initiated by the Ministry of Education, Government of India, under the National Mission on Education through Information and Communication Technology. The project aims to provide remote access to Laboratories in various disciplines of Science and Engineering for students at all levels from undergraduate to research.

Virtual Labs have been designed to provide remote access to labs in various disciplines of Science and Engineering. These Virtual Labs cater to students at the undergraduate level, postgraduate level as well as to research scholars. Virtual Labs enable the students to learn at their own pace and enthrust them to conduct experiments. Virtual Labs also provide a complete learning management system where the students can avail various tools for learning, including additional web resources, video lectures, animated demonstration, and self-evaluation. Virtual Labs can be used to complement physical labs.

The project is coordinated by IIT Delhi and there are a total of 11 participating institutes in the consortium. IIT Delhi, IIT Bombay, IIT Kanpur, IIT Kharagpur, IIT Roorkee, IIT Guwahati, IIIT Hyderabad, Amrita VishwaVidyaapeetham Coimbatore, Dayalbagh Educational Institute Agra, NITK Surathkal, and College of Engineering Pune are the institutions participating in the project. Ranjan Bose is the National Coordinator for the project.

Literature Review:

The present system is the manual one. Hence all the information about the Student, courses and faculty details maintained in the file. For Faculty, they have different-different files for different purpose, Like separate file for student

details, attendance and separate file for report etc. For Student, they have different-different notebooks for different subjects; sometimes they forget something during lecture. This Virtual Classroom System is available anytime without any restriction that means we can access 24 hours a day. Although lab application in students' learning has a very important place in science education. it has some limits and problems, especially in developing countries. India is also one of the developing country so India also face the same problem. Some of the main problems faced can be summarized as follows: In carrying out experiments and arranging with equipment, the laboratory activities are expensive. For planning and application, it is much time consuming. Checking students' performance during the activities can be difficult in overcrowded classes. Lack of lab or equipment, or insufficient lab conditions which limits the teacher to perform a simple lab activity. Moreover they also overcome the possible dangers that can be seen in the real lab conditions (Yenitepe, 2001). For example a dangerous experiment for human health is prepared in computer as simulations, so that students can see the experiments design and perform the experiment in computer and observe the result. Other than performing dangerous, difficult or impossible experiments, simulations have advantages from the time, security, cost and motivation point of view.

Virtual Lab Framework:

The purpose of this paper is to provide a framework that allows for the development of a virtual lab that incorporates emerging technologies such as the Industrial Internet of Things and embedded systems while incorporating open source components. The global shortage of talent is a significant concern as organizations continue to embrace and roll out new technologies such as 5G, and Artificial Intelligence. Several countries such

as those in developing countries face issues regarding technology use in the classroom. Thus, to provide a learning environment where cybersecurity and information systems concepts can be taught in an exploratory environment.

Architecture of Virtual Lab:

CBMIS,

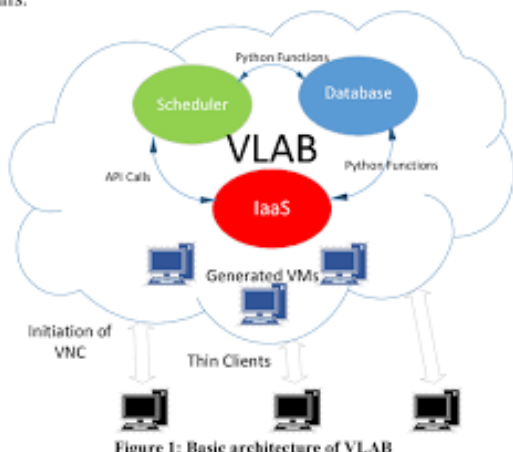


Figure 1: Basic architecture of VLAB

The Virtual Laboratory is an interactive environment for creating and conducting simulated experiments: a playground for experimentation. It consists of domain-dependent simulation programs, experimental units called objects that encompass data files, tools that operate on the objects.

The Objective is to Expose the students to the various key aspects of Digital Logic and Computer Organization by enabling them to perform FPGA based prototyping of experiments with support of a virtual environment. The primary need for virtualisation here is multifold.

1. Digital Logic and Computer Organization are core courses in most of the Undergraduate Curricula of the entire Electrical Sciences Discipline (Computer Science / Engg., Electronics, Electrical) etc.
2. Many colleges/institutes cannot procure sufficient number of FPGA boards for their students.
3. Even when such FPGA boards are available, making them available round the clock is difficult.
4. Expert help is required to effectively use these FPGA boards and such help can be easily channeled through a virtual environment.
5. Helps to standardize the set of Experiments to a large extent.

Conclusion:

Some conclusions about designing such environments: "Due to technical problems and lack of resources both projects produced virtual laboratories that were far simpler than the initially expected result. A conclusion drawn from this is

that the development of successful virtual laboratories requires a huge amount of resources and time." On the positive side, authors report that users achieved intended learning outcomes despite technical production issues, in other words, it is possible to develop virtual environments with limited resources. To achieve that, the authors formulate a number of recommendations that we reproduce here:

- Be very clear about the purpose of the virtual laboratory, and in what context you intend it to be used. Media consumers, especially teenagers and young adults, are highly media literate and can quite easily see through attempts where for example a linear demonstration pretends to be an interactive laboratory. Consider which type of media you intend to build - simulation, laboratory, demonstration, and so on. Indicate clearly for the user what they are interacting with.
- Strive to use the simplest possible design and technology, still meeting the demands efficiently. In some cases advanced technology such as virtual environments or even virtual reality might be needed, but a technology-minimalistic strive will lower the risk that a too advanced technology is used for its own sake. The most eye catching techniques might not always correlate with what is relevant to show.
- Adapt levels of realism and accuracy to the intended target group as well as to the intended learning outcome.
- Continuously consider enhancements of the virtual laboratory to increase the learning outcome. It can be profitable to provide help when needed and visualise things that are not possible in a real laboratory. Balance this potential against possible advantages of having a virtual laboratory that closely mimics real-life laboratory exercises.
- Regard a virtual laboratory as an illustrative playground that requires external support in the form of guiding, explanatory texts or teacher debriefing. The virtual laboratory provides the students with experience and observations, but does not always necessarily provide understanding on its own. Guidance is often necessary to help the students to understand the illustrated scientific phenomena.

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Implications of New Education Policy (NEP 2020)

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Introduction:

The New Education Policy (2020) emphasizes knowledge and skills. The NEP 2020 has adopted new values. The very unique feature of the NEP get it allowed is that it allows interdisciplinary approach. It also address is pertinent issues such as shortage of New Education policy. The policy also recommends reaching out to local a eminent persons.

It stresses the importance of critical thinking, creativity and problem. Solving skills and encourage the use of diverse teaching methods and local resources. The national education policy in (NEP) 2020 is a comprehensive policy Framework that aims to Reform and revitalize the education system in India, 21 December 2022.

The ratio of total goods and services trades to GDP increase from 17.2% to 30.6% in 10 years. Increased competition in areas such as banking has resulted in more customer choice and increased efficiency as a result of reforms. Hence, this benefits of private sector investments and growth.

The aim and objectives of NEP 2020 :-

The basic aim and objective of NEP 2020 are to make Education University accessible from primary to secondary level by the year 2030.

- 1) It helps in building a relationship between the learner and Society at large scale.
- 2) NEP 2020 Aims to over all development of an individual.
- 3) It helps in enhance social economic programs of the country.

Autonomous college in new education policy:-

With the autonomous status college will be able to have their own admission rules, design their own syllabi and restructure courses. Autonomous colleges are free to start certificate or diploma courses without prior approval of the parent University

Controls of Autonomous College:-

This is my research mind the new education policy has autonomous University typically refers to a University that exercises

independent control over its day to day operations and circular as a post to a University in which government has agency control the academic programs. I say the autonomous college has updated syllabus and Commerce is better than non autonomous. Future plan have and most teacher are knowledgeable and give you a good lecture. These universities are given a status of deemed due to high excellent in research fields as well as course circular. So these are certainly good options for students.

Research Methodology :-

For India to have an education system by 2040 that is second to none, with equitable access to the highest a quality education for all learners regardless of social or economic background. There are three different types of resource metal or Methodology you can select best on the nature of the study.

- 1) Qualitative research.
- 2) Quantitative Research.
- 3) Mixed Research.

Conclusion:-

Implementation of skills, understanding and new learning methods in every child. More focus as practical learning rather than theoretical learning. Every student can get qualified education no matter cast gender or disability. This new policy will strike to make the country of India a global knowledge superpower. The policy Aims to fundamental changes to the present education system. The aims of education of valuable. The conclusion is the summary of the findings. The objective is the coal. New education policy is benefits to students and teachers in present Era.

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Role of MSME in Sustainable Development

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Abstract

The MSME sector of India is growing as an effective tool of sustainable development. as this sector is building strong foundation for industrial development in India. Increase in MSME sector ensures the equal distribution of money, it also provides more employment opportunities in the rural and backward areas.

In this study the role of MSME in sustainable development has been studied, the comparison of different years performance it is seem that the industrial development helps in creation of wealth, employment, reduction of poverty and sustainable development can be achieved by inclusive growth.

Key points: Sustainable development, MSME

Introduction:

Developing countries like india has large number of MSME's which plays an important role in economic development and creation of employment opportunities for the rural and backward areas. These industries need small capital investment, as well as less manpower in seperately in the group sence it creates a large portion of private industries who are generating employment and reduces enequality.

Government of India has taken differnt initiatives to encourage the potential entrepreneurs. MSME's face many challenges like capital inadequacy, Problem of Marketing a product, Raw material problems, lack of skilled employees. For overcoming such challenges Government has launched different scheams by which proper utilization of resourses will be posible.

Definition of Micro,Small and Medium enterprises as below

Classification	Manufacturing and service enterprises
Micro	Investment in Plant and Machinery or Equipment: Not more than Rs.1 crore and Annual Turnover ; not more than Rs. 5 crore
Small	Investment in Plant and Machinery or Equipment: Not more than Rs.10 crore and Annual Turnover ; not more than Rs. 50 crore

Medium

Investment in Plant and Machinery or Equipment: Not more than Rs.50 crore and Annual Turnover ; not more than Rs. 250 crore

(source: Ministry of MSME Gazeted definition Dated June 1, 2020)

Before this definition the MSME's sector was defined differntly for manufacturing and service sector seperately from this definition both service and maufacturing sectors are jointly defined.

Objectives of the study:

- 1) To study role of MSME's in employment generation.
- 2) To study the MSME's and eradication of poverty

Research Methodology:

Research Method:

For this study the researcher has used the exploratory reseach method.

Data collection:

The data for present study is gathered from different secondary sources, notably MSME annual report for last two years and other articles on the topic. employment generation by MSME sector as the data available upto the 2016

Year	MM subsidy released (Rs crore)	MM subsidy utilized# (Rs crore)	No. of projects assisted	Estimated employment generated
XI Plan Total (2008-09 to 2011-12)	3131.65	3067.69	1,64,283	16,05,865
2012-13	1228.44	1080.66	57,884	4,28,246
2013-14	988.36	1076.45	50,493	3,78,907
2014-15	1073.17#	1122.54	48,168	3,57,502
2015-16	1013.53*	872.44*	38103*	278160*
XII Plan Total	4303.5	4152.09	194648	1442815
Grand Total [XI and XII Plan]	7435.15	7219.78	358931	3048680

(Source: <https://msme.gov.in/>)

The above table shows the complete review of the MSME sector as it shows the subsidy released and number of estimated employment generated under XI and XII plan the total estimated employment generated is about 3048680. which shows a huge figure in the employment generation.

in the year 2012-13 about 1228.44 crore subsidy was given to MSME's around the country and they are expected to generate 428246 new employment opportunities. in the total XI plan the subsidy was allowed to Rs 3131.65 crore and expected the new employment 1605865.

in the XII plan the total subsidy was raised to 4303.15 crores where as the expected new employment also about 1442815 which is less than the XI plan.

MSME and Poverty eradication :

as we have studied that the MSME's are in the rural and backward areas and they need very small amount of investment as well as they are supported by the different government scheme. The MSME's create an employment opportunities which leads to increase the per capita income of a family where are the need of MSME's is not highly skilled labour force they need only a semi skilled or some times employees having no skill can get employment.

The increased employment opportunities MSME's able to eradication of poverty.

Findings:

- 1) MSME's plays an important role in employment generation in rural areas.
- 2) Peoples having less skill also get employment opportunities.
- 3) As per the MSME report the changes in Subsidy in XII plan the employment generation is lesser than XI plan.
- 4) Increased employment opportunities helps in eradication of poverty.

conclusion:

The MSME sector of India is growing as an effective tool of sustainable development. as this sector is building strong foundation for industrial development in India. Increase in MSME sector ensures the equal distribution of money, it also provides more employment opportunities in the rural and backward areas.

subsidy released and number of estimated employment generated under XI and XII plan the total estimated employment generated is about 3048680. which shows a huge figure in the employment generation.

Reference:

- 1) MSME annual report 2019-20
- 2) MSME annual report 2020-21
- 3) <https://msme.gov.in/>

‘Digital India’: An Initiative Towards Self-Reliance

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Abstract

Digital India is an important program of Government of India to create Digital India. Digital India is a program to prepare India for a future of knowledge. Digital India is an ambitious program of the Government of India which is expected to cost approximately Rs 1,13,000 crore. It will be to prepare India for knowledge-based transformation and provide good governance to citizens through coordination and investment with both central and state governments. Digital India is one of the biggest contributors to change the country, this scheme has changed the image of the country itself and made life easier and better for the common man. Digital India has emerged as a major revolution. There are many objectives for launching the Digital India programme, which will provide Indian people with many opportunities for progress and development of the country.

Keywords: Digital, Transformation, Economy, Jobs, Skill development, Internet

This is the age of transformation.

Transformation in all walks of life. It has become a buzz word. Then how can our nation remain lagging behind? So, India is also transforming. The transformation in India can be seen in the form of infrastructural and economic development, growth of entrepreneurs, and so on. A big role in this transformation is of the Government of India's *Aatma Nirbhar Bharat* initiative. India is striving hard to better itself in various sectors under the same. "Digital India" is one of the initiatives under the *Aatma Nirbhar Bharat* project. The initiative was launched on July 1, 2015. Since then, the nation witnessed a lot of changes- electronically and digitally.

Digital India was launched to integrate connectivity, skill development and digital governance. Earlier initiatives such as the National e-Governance Plan (2006), The National Optical Fiber Network (2011) and UID (2009) were revised and renamed. A fund of 2510 crores was initially sanctioned for the initiative 'Digital India' and important provisions were made in the budget of 2015-16. A brand was created through 'Digital India'. Along with this, Prime Minister Narendra Modi's image of 'Jan Jan Modi, Ghar Ghar Modi' was created for the ambitious and comprehensive transformation of Prime Minister Narendra Modi. Of course, this was easily reflected in the Prime Minister's speech on Independence Day 2014. Modi

had said that 'Digital India is our dream to reach the Bahunians and not just limited to the elite. It is our ambition to bring good education to every boy and girl living in the remote villages of our country. Our goal is for every Indian to use his bank account from his mobile, use digital facilities to transact with the government, meet the needs of daily life as well as for business. To achieve all this, we have to choose the path towards digital India.' Through this, the government's attempt to take India towards a digital economy was somewhat bold and ambitious. When the initiative was launched, only 19% of India's population had an internet connection. Whereas 15% people had a mobile phone. This program brought about a considerable change in the ideas of Indians about India's place in the world. It was a glimmer of hope for Indians after two years of financial woes.

It has been seen that many initiatives in 'Digital India' are stuck in the cycle of how they should be implemented. Often, lack of rules and policies, flawed plans and lack of foresight greatly hampered the speed of the initiative. A separate controversy has arisen due to the draft of the law regarding the security of personal data. The National Encryption Policy as well as the lack of cyber security measures affected the Aadhaar database in a big way. The usage confusion between BHIM and INDEN not only shattered public trust but also raised big questions about the security and integrity of Digital India.

National Optical Fiber Network was established in 2011 to connect 2.5 lakh gram panchayats. Later it came to be known as 'Bharat Net'. The project missed the somewhat unrealistic 2013 deadline. Further, in 2014, the project was reconstructed with a deadline that could be implemented in three phases. Phase 1 of 'Bharat Net' has been delayed for a long time due to lack of infrastructure. In its 2020 report, the Standing Committee on IT said there is a lack of measures to actually deliver internet services to end users. This is said to be the result of the lack of a 'last mile connectivity strategy' till 2017. The report highlights the bureaucratic delays in the work. Inequality in various constituent states has also been seen in this. Inaccessibility, rains and frequent floods are further hindering the delivery of this service to the North-Eastern states. Of course, these factors are expected to be considered while preparing this plan.

To connect every citizen of India with the digital world, the government has taken this amazing step and launched the Digital India project, Digital India is the biggest player behind the change in the country. According to the government, the Digital India program will create 18 lakh new jobs. This will reduce unemployment in the country, improve many conditions in the country. The Digital India program will provide an opportunity for all government departments in India to speed up the pace. Digital India will help provide jobs to the youth, providing them with employment opportunities. This will also significantly improve the country's economy; the digital technology program will develop new technologies in the country. As many things in the world have gone digital, we have seen many changes in the country. The growing digitalization is adding to the economic development of the country. Almost 50% of India's economy has gone digital. In the coming years, with the introduction of schemes and initiatives that focus on digitalization, the economy looks to foster further.

Adding an 'E' in front of anything does not solve the obstacles, this is the big lesson learned in this journey of 'Digital India'. This proved that behind the hype of technology lies many things like lack of power and inclusiveness. Aadhaar was supposed to help in availing various schemes of the

government easily. But actually, the opposite happened. Citizens have to choose between privacy and opportunity for availing various grants, schemes, bank accounts and other related tasks. Of course, this included the poor, marginalized and those who could benefit greatly from government schemes.

Over the course of six years, India's digital program faced many hurdles. It raised questions on the constitutional validity of Aadhaar card. Along with this, there were some flaws in the data security in the *Aarogya Setu* app, which was the digital backbone of the government during the Covid period. The *Aarogya Setu* app was supposed to be useful for collecting information about patients and keeping detailed information about the spread of the disease during the Covid period.

But despite this, the brand 'Digital India' still stands out. Startup India and Digital India should not be limited to buzzwords. Through them, a new wave of information technology revolution should be generated in India and thereby development should be accelerated. This initiative is enticing thousands, if not millions, of young Indians, technologists and professionals to make their mark in digital technology. The country's \$200 billion digital economy is an important way to reach out to the world. It will be useful for new regional and international partnerships. Now India is trying to recover from the pandemic crisis. This digital success story will help to achieve something substantial globally.

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Big Data Analytics

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Abstract

In the information era, enormous amounts of data have become available on hand to decision makers. Big data refers to datasets that are not only big, but also high in variety and velocity, which makes them difficult to handle using traditional tools and techniques. Due to the rapid growth of such data, solutions need to be studied and provided in order to handle and extract value and knowledge from these datasets. Furthermore, decision makers need to be able to gain valuable insights from such varied and rapidly changing data, ranging from daily transactions to customer interactions and social network data. Such value can be provided using big data analytics, which is the application of advanced analytics techniques on big data. This paper aims to analyze some of the different analytics methods and tools which can be applied to big data, as well as the opportunities provided by the application of big data analytics in various decision domains.

Introduction

Imagine a world without data storage; a place where every detail about a person or organization, every transaction performed, or every aspect which can be documented is lost directly after use. Organizations would thus lose the ability to extract valuable information and knowledge, perform detailed analyses, as well as provide new opportunities and advantages. Anything ranging from customer names and addresses, to products available, to purchases made, to employees hired, etc. has become essential for day-to-day continuity. Data is the building block upon which any organization thrives.

Now think of the extent of details and the surge of data and information provided nowadays through the advancements in technologies and the internet. With the increase in storage capabilities and methods of data collection, huge amounts of data have become easily available. Every second, more and more data is being created and needs to be stored and analyzed in order to extract value. Furthermore, data has become cheaper to store, so organizations need to get as much value as possible from the huge amounts of stored data.

The size, variety, and rapid change of such data require a new type of big data analytics, as well as different storage and analysis methods. Such sheer amounts of big data need to be properly analyzed, and pertaining information should be extracted. The

contribution of this paper is to provide an analysis of the available literature on big data analytics. Accordingly, some of the various big data tools, methods, and technologies which can be applied are discussed, and their applications and opportunities provided in several decision domains are portrayed.

The literature was selected based on its novelty and discussion of important topics related to big data, in order to serve the purpose of our research. The publication years range from 2008-2013, with most of the literature focusing on big data ranging from 2011-2013. This is due to big data being a recently focused upon topic. Furthermore, our corpus mostly includes research from some of the top journals, conferences, and white papers by leading corporations in the industry. Due to long review process of journals, most of the papers discussing big data analytics, its tools and methods, and its applications were found to be conference papers, and white papers. While big data analytics is being researched in academia, several of the industrial advancements and new technologies provided were mostly discussed in industry papers.

1 Big Data Analytics

The term “Big Data” has recently been applied to datasets that grow so large that they become awkward to work with using traditional database management systems. They are data sets whose size is beyond the ability of commonly used software tools and storage systems to capture, store,

manage, as well as process the data within a tolerable elapsed time.

Big data sizes are constantly increasing, currently ranging from a few dozen terabytes (TB) to many petabytes (PB) of data in a single data set. Consequently, some of the difficulties related to big data include capture, storage, search, sharing, analytics, and visualizing. Today, enterprises are exploring large volumes of highly detailed data so as to discover facts they didn't know before. Hence big data analytics is where advanced analytic techniques are applied on big data sets. Analytics based on large data samples reveals and leverages business change. However, the larger the set of data, the more difficult it becomes to manage.

In this section, we will start by discussing the characteristics of big data, as well as its importance. Naturally, business benefit can commonly be derived from analyzing larger and more complex data sets that require real time or near-real time capabilities; however, this leads to a need for new data architectures, analytical methods, and tools. Therefore the successive section will elaborate the big data analytics tools and methods, in particular, starting with the big data storage and management, then moving on to the big data analytic processing. It then concludes with some of the various big data analyses which have grown in usage with big data.

1.1 Characteristics of Big Data

Big data is data whose scale, distribution, diversity, and/or timeliness require the use of new technical architectures, analytics, and tools in order to enable insights that unlock new sources of business value. Three main features characterize big data: volume, variety, and velocity, or the three V's. The volume of the data is its size, and how enormous it is. Velocity refers to the rate with which data is changing, or how often it is created. Finally, variety includes the different formats and types of data, as well as the different kinds of uses and ways of analyzing the data.

Data volume is the primary attribute of big data. Big data can be quantified by size in TBs or PBs, as well as even the number of records, transactions, tables, or files. Additionally, one of the things that make big data really big is that it's coming from a greater variety of sources than ever before, including logs, clickstreams, and social

media. Using these sources for analytics means that common structured data is now joined by unstructured data, such as text and human language, and semi-structured data, such as extensible Markup Language (XML) or Rich Site Summary (RSS) feeds. There's also data, which is hard to categorize since it comes from audio, video, and other devices. Furthermore, multi-dimensional data can be drawn from a data warehouse to add historic context to big data. Thus, with big data, variety is just as big as volume.

Moreover, big data can be described by its velocity or speed. This is basically the frequency of data generation or the frequency of data delivery. The leading edge of big data is streaming data, which is collected in real-time from the websites. Some researchers and organizations have discussed the addition of a fourth V, or veracity. Veracity focuses on the quality of the data. This characterizes big data quality as good, bad, or undefined due to data inconsistency, incompleteness, ambiguity, latency, deception, and approximations.

1.2 Big Data Analytics Tools and Methods

With the evolution of technology and the increased multitudes of data flowing in and out of organizations daily, there has become a need for faster and more efficient ways of analyzing such data. Having piles of data on hand is no longer enough to make efficient decisions at the right time.

Such data sets can no longer be easily analyzed with traditional data management and analysis techniques and infrastructures. Therefore, there arises a need for new tools and methods specialized for big data analytics, as well as the required architectures for storing and managing such data. Accordingly, the emergence of big data has an effect on everything from the data itself and its collection, to the processing, to the final extracted decisions.

Consequently, proposed the Big – Data, Analytics, and Decisions (B-DAD) framework which incorporates the big data analytics tools and methods into the decision making process. The framework maps the different big data storage, management, and processing tools, analytics tools and methods, and visualization and evaluation tools to the different phases of the decision making process. Hence, the changes associated with big

data analytics are reflected in three main areas: big data storage and architecture, data and analytics processing, and, finally, the big data analyses which can be applied for knowledge discovery and informed decision making. Each area will be further discussed in this section. However, since big data is still evolving as an important field of research, and new findings and tools are constantly developing, this section is not exhaustive of all the possibilities, and focuses on providing a general idea, rather than a list of all potential opportunities and technologies.

Big Data Storage and Management

One of the first things organizations have to manage when dealing with big data, is where and how this data will be stored once it is acquired. The traditional methods of structured data storage and retrieval include relational databases, data marts, and data warehouses. The data is uploaded to the storage from operational data stores using Extract, Transform, Load (ETL), or Extract, Load, Transform (ELT), tools which extract the data from outside sources, transform the data to fit operational needs, and finally load the data into the database or data warehouse. Thus, the data is cleaned, transformed, and catalogued before being made available for data mining and online analytical functions.

However, the big data environment calls for Magnetic, Agile, Deep (MAD) analysis skills, which differ from the aspects of a traditional Enterprise Data Warehouse (EDW) environment. First of all, traditional EDW approaches discourage the incorporation of new data sources until they are cleansed and integrated. Due to the ubiquity of data nowadays, big data environments need to be magnetic, thus attracting all the data sources, regardless of the data quality. Furthermore, given the growing numbers of data sources, as well as the sophistication of the data analyses, big data storage should allow analysts to easily produce and adapt data rapidly. This requires an agile database, whose logical and physical contents can adapt in sync with rapid data evolution. Finally, since current data analyses use complex statistical methods, and analysts need to be able to study enormous datasets by drilling up and down, a big data repository also needs to be deep, and serve as a sophisticated algorithmic runtime engine. Accordingly, several

solutions, ranging from distributed systems and Massive Parallel Processing (MPP) databases for providing high query performance and platform scalability, to non-relational or in-memory databases, have been used for big data.

Non-relational databases, such as Not Only SQL (NoSQL), were developed for storing and managing unstructured, or non-relational, data. NoSQL databases aim for massive scaling, data model flexibility, and simplified application development and deployment. Contrary to relational databases, NoSQL databases separate data management and data storage. Such databases rather focus on the high-performance scalable data storage, and allow data management tasks to be written in the application layer instead of having it written in databases specific languages.

On the other hand, in-memory databases manage the data in server memory, thus eliminating disk input/output (I/O) and enabling real-time responses from the data- base. Instead of using mechanical disk drives, it is possible to store the primary data- base in silicon-based main memory. This results in orders of magnitude of improvement in the performance, and allows entirely new applications to be developed. Furthermore, in-memory databases are now being used for advanced analytics on big data, especially to speed the access to and scoring of analytic models for analysis. This provides scalability for big data, and speed for discovery analytics.

Alternatively, Hadoop is a framework for performing big data analytics which provides reliability, scalability, and manageability by providing an implementation for the MapReduce paradigm, which is discussed in the following section, as well as gluing the storage and analytics together. Hadoop consists of two main components: the HDFS for the big data storage, and MapReduce for big data analytics. The HDFS storage function provides a redundant and reliable distributed file system, which is optimized for large files, where a single file is split into blocks and distributed across cluster nodes. Additionally, the data is protected among the nodes by a replication mechanism, which ensures availability and reliability despite any node failures. There are two types of HDFS nodes: the Data Nodes and the Name Nodes. Data is stored in replicated file blocks across the multiple

Data Nodes, and the Name Node acts as a regulator between the client and the Data Node, directing the client to the particular Data Node which contains the requested data.

Big Data Analytic Processing

After the big data storage, comes the analytic processing. According to, there are four critical requirements for big data processing. The first requirement is fast data loading. Since the disk and network traffic interferes with the query executions during data loading, it is necessary to reduce the data loading time. The second requirement is fast query processing. In order to satisfy the requirements of heavy workloads and real-time requests, many queries are response-time critical. Thus, the data placement structure must be capable of retaining high query processing speeds as the amounts of queries rapidly increase. Additionally, the third requirement for big data processing is the highly efficient utilization of storage space. Since the rapid growth in user activities can demand scalable storage capacity and computing power, limited disk space necessitates that data storage be well managed during processing, and issues on how to store the data so that space utilization is maximized be addressed. Finally, the fourth requirement is the strong adaptivity to highly dynamic workload patterns. As big data sets are analyzed by different applications and users, for different purposes, and in various ways, the underlying system should be highly adaptive to unexpected dynamics in data processing, and not specific to certain workload patterns.

Map Reduce is a parallel programming model, inspired by the “Map” and “Reduce” of functional languages, which is suitable for big data processing. It is the core of Hadoop, and performs the data processing and analytics functions. According to EMC, the MapReduce paradigm is based on adding more computers or resources, rather than increasing the power or storage capacity of a single computer; in other words, scaling out rather than scaling up. The fundamental idea of MapReduce is breaking a task down into stages and

executing the stages in parallel in order to reduce the time needed to complete the task.

The first phase of the MapReduce job is to map input values to a set of key/value pairs as output. The “Map” function accordingly partitions large computational tasks into smaller tasks, and assigns them to the appropriate key/value pairs. Thus, unstructured data, such as text, can be mapped to a structured key/value pair, where, for example, the key could be the word in the text and the value is the number of occurrences of the word. This output is then the input to the “Reduce” function. Reduce then performs the collection and combination of this output, by combining all values which share the same key value, to provide the final result of the computational task.

The MapReduce function within Hadoop depends on two different nodes: the Job Tracker and the Task Tracker nodes. The Job Tracker nodes are the ones which are responsible for distributing the mapper and reducer functions to the available Task Trackers, as well as monitoring the results. The MapReduce job starts by the Job- Tracker assigning a portion of an input file on the HDFS to a map task, running on a node. On the other hand, the Task Tracker nodes actually run the jobs and communicate results back to the Job Tracker. That communication between nodes is often through files and directories in HDFS, so inter-node communication is minimized.

Figure 1 shows how the MapReduce nodes and the HDFS work together. At step 1, there is a very large dataset including log files, sensor data, or anything of the sorts. The HDFS stores replicas of the data, represented by the blue, yellow, beige, and pink icons, across the Data Nodes. In step 2, the client defines and executes a map job and a reduce job on a particular data set, and sends them both to the Job Tracker. The Job Tracker then distributes the jobs across the Task Trackers in step 3. The Task Tracker runs the mapper, and the mapper produces output that is then stored in the HDFS file system. Finally, in step 4, the reduce job runs across the mapped data in order to produce the result.

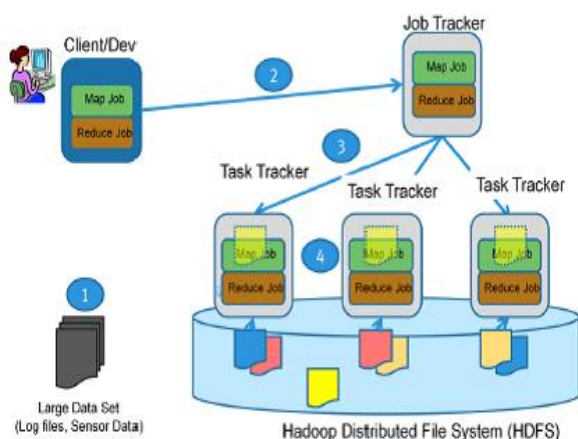


Fig. 1. MapReduce and HDFS

Hadoop is a MAD system, thus making it popular for big data analytics by loading data as files into the distributed file system, and running parallel MapReduce computations on the data. Hadoop gets its magnetism and agility from the fact that data is loaded into Hadoop simply by copying files into the distributed file system, and MapReduce interprets the data at processing time rather than loading time. Thus, it is capable of attracting all data sources, as well as adapting its engines to any evolutions that may occur in such big data sources.

After big data is stored, managed, and processed, decision makers need to extract useful insights by performing big data analyses. In the subsections below, various big data analyses will be discussed, starting with selected traditional advanced data analytics methods, and followed by examples of some of the additional, applicable big data analyses.

Big Data Analytics

Nowadays, people don't just want to collect data, they want to understand the meaning and importance of the data, and use it to aid them in making decisions. Data analytics is the process of applying algorithms in order to analyze sets of data and extract useful and unknown patterns, relationships, and information. Furthermore, data analytics are used to extract previously unknown, useful, valid, and hidden patterns and information from large data sets, as well as to detect important relationships among the stored variables. Therefore, analytics have had a significant impact on research and technologies, since decision

makers have become more and more interested in learning from previous data, thus gaining competitive advantage.

Along with some of the most common advanced data analytics methods, such as association rules, clustering, classification and decision trees, and regression some additional analyses have become common with big data.

For example, social media has recently become important for social networking and content sharing. Yet, the content that is generated from social media websites is enormous and remains largely unexploited. However, social media analytics can be used to analyze such data and extract useful information and predictions. Social media analytics is based on developing and evaluating informatics frameworks and tools in order to collect, monitor, summarize, analyze, as well as visualize social media data. Furthermore, social media analytics facilitates understanding the reactions and conversations between people in online communities, as well as extracting useful patterns and intelligence from their interactions, in addition to what they share on social media websites.

On the other hand, Social Network Analysis (SNA) focuses on the relationships among social entities, as well as the patterns and implications of such relationships. An SNA maps and measures both formal and informal relationships in order to comprehend what facilitates the flow of knowledge between interacting parties, such as who knows who, and who shares what knowledge or information with who and using what.

However, SNA differs from social media analysis, in that SNA tries to capture the social relationships and patterns between networks of people. On the other hand, social media analysis aims to analyze what social media users are saying in order to uncover useful patterns, information about the users, and sentiments. This is tradition- ally done using text mining or sentiment analysis, which are discussed below.

On the other hand, text mining is used to analyze a document or set of documents in order to understand the content within and the meaning of the information contained. Text mining has become very important nowadays since most of

the information stored, not including audio, video, and images, consists of text. While data mining deals with structured data, text presents special characteristics which basically follow a non-relational form.

Moreover, sentiment analysis, or opinion mining, is becoming more and more important as online opinion data, such as blogs, product reviews, forums, and social data from social media sites like Twitter and Facebook, grow tremendously. Sentiment analysis focuses on analyzing and understanding emotions from subjective text patterns, and is enabled through text mining. It identifies opinions and attitudes of individuals towards certain topics, and is useful in classifying viewpoints as positive or negative. Sentiment analysis uses natural language processing and text analytics in order to identify and extract information by finding words that are indicative of a sentiment, as well as relationships between words, so that sentiments can be accurately identified.

Finally, from the strongest potential growths among big data analytics options is Advanced Data Visualization (ADV) and visual discovery. Presenting information so that people can consume it effectively is a key challenge that needs to be met, in order for decision makers to be able to properly analyze data in a way to lead to concrete actions. ADV has emerged as a powerful technique to discover knowledge from data. ADV combines data analysis methods with interactive visualization to enable comprehensive data exploration. It is a data driven exploratory approach that fits well in situations where analysts have little knowledge about the data. With the generation of more and more data of high volume and complexity, an increasing demand has arisen for ADV solutions from many application domains. Additionally, such visualization analyses take advantage of human perceptual and reasoning abilities, which enables them to thoroughly analyze data at both the overview and the detailed levels. Along with the size and complexity of big data, intuitive visual representation and interaction is needed to facilitate the analyst's perception and reasoning.

ADV can enable faster analysis, better decision making, and more effective presentation

and comprehension of results by providing interactive statistical graphics and a point-and-click interface. Furthermore, ADV is a natural fit for big data since it can scale its visualizations to represent thousands or millions of data points, unlike standard pie, bar, and line charts. Moreover, it can handle diverse data types, as well as present analytic data structures that aren't easily flattened onto a computer screen, such as hierarchies and neural nets. Additionally, most ADV tools and functions can support interfaces to all the leading data sources, thus enabling business analysts to explore data widely across a variety of sources in search of the right analytics dataset, usually in real-time .

2 Big Data Analytics and Decision Making

From the decision maker's perspective, the significance of big data lies in its ability to provide information and knowledge of value, upon which to base decisions. The managerial decision making process has been an important and thoroughly covered topic in research throughout the years.

Big data is becoming an increasingly important asset for decision makers. Large volumes of highly detailed data from various sources such as scanners, mobile phones, loyalty cards, the web, and social media platforms provide the opportunity to deliver significant benefits to organizations. This is possible only if the data is properly analyzed to reveal valuable insights, allowing for decision makers to capitalize upon the resulting opportunities from the wealth of historic and real-time data generated through supply chains, production processes, customer behaviors, etc.

Moreover, organizations are currently accustomed to analyzing internal data, such as sales, shipments, and inventory. However, the need for analyzing external data, such as customer markets and supply chains, has arisen, and the use of big data can provide cumulative value and knowledge. With the increasing sizes and types of un-structured data on hand, it becomes necessary to make more informed decisions based on drawing meaningful inferences from the data .

Accordingly, developed the B-DAD framework which maps big data tools and techniques, into the decision making process. Such a framework is intended to enhance the quality of the decision making process in regards to dealing with big data. The first phase of the decision making process is the intelligence phase, where data which can be used to identify problems and opportunities is collected from internal and external data sources. In this phase, the sources of big data need to be identified and the data needs to be gathered from different sources, processed, stored, and migrated to the end user. Such big data needs to be treated accordingly, so after the data sources and types of data required for the analysis are defined, the chosen data is acquired and stored in any of the big data storage and management tools previously discussed. After the big data is acquired and stored, it is then organized, prepared, and processed. This is achieved across a high-speed network using ETL/ELT or big data processing tools, which have been covered in the previous sections.

The next phase in the decision making process is the design phase, where possible courses of action are developed and analyzed through a conceptualization, or a representative model of the problem. The framework divides this phase into three steps, model planning, data analytics, and analyzing. Here, a model for data analytics, such as those previously discussed, is selected and planned, and then applied, and finally analyzed.

Consequently, the following phase in the decision making process is the choice phase, where methods are used to evaluate the impacts of the proposed solutions, or courses of action, from the design phase. Finally, the last phase in the decision making process is the implementation phase, where the proposed solution from the previous phase is implemented.

As the amount of big data continues to exponentially grow, organizations throughout the different sectors are becoming more interested in how to manage and analyze such data. Thus, they are rushing to seize the opportunities offered by big data, and gain the most benefit and insight possible, consequently

adopting big data analytics in order to unlock economic value and make better and faster decisions. Therefore, organizations are turning towards big data analytics in order to analyze huge amounts of data faster, and reveal previously unseen patterns, sentiments, and customer intelligence. This section focuses on some of the different applications, both proposed and implemented, of big data analytics, and how these applications can aid organizations across different sectors to gain valuable insights and enhance decision making.

According to Manyika et al.'s research, big data can enable companies to create new products and services, enhance existing ones, as well as invent entirely new business models. Such benefits can be gained by applying big data analytics in different areas, such as customer intelligence, supply chain intelligence, performance, quality and risk management and fraud detection. Furthermore, Cebr's study highlighted the main industries that can benefit from big data analytics, such as the manufacturing, retail, central government, healthcare, telecom, and banking industries.

2.1 Customer Intelligence

Big data analytics holds much potential for customer intelligence, and can highly benefit industries such as retail, banking, and telecommunications. Big data can create transparency, and make relevant data more easily accessible to stakeholders in a timely manner. Big data analytics can provide organizations with the ability to profile and segment customers based on different socioeconomic characteristics, as well as increase levels of customer satisfaction and retention. This can allow them to make more informed marketing decisions, and market to different segments based on their preferences along with the recognition of sales and marketing opportunities. Moreover, social media can be used to inform companies what their customers like, as well as what they don't like. By performing sentiment analysis on this data, firms can be alerted beforehand when customers are turning against them or shifting to different products, and accordingly take action.

Additionally, using SNAs to monitor customer sentiments towards brands, and identify

influential individuals, can help organizations react to trends and perform direct marketing. Big data analytics can also enable the construction of predictive models for customer behavior and purchase patterns, therefore raising overall profitability. Even organizations which have used segmentation for many years are beginning to deploy more sophisticated big data techniques, such as real-time micro-segmentation of customers, in order to target promotions and advertising. Consequently, big data analytics can benefit organizations by enabling better targeted social influencer marketing, defining and predicting trends from market sentiments, as well as analyzing and understanding churn and other customer behaviors.

2.2 Supply Chain and Performance Management

As for supply chain management, big data analytics can be used to forecast demand changes, and accordingly match their supply. This can increasingly benefit the manufacturing, retail, as well as transport and logistics industries. By analyzing stock utilization and geospatial data on deliveries, organizations can automate replenishment decisions, which will reduce lead times and minimize costs and delays, as well as process interruptions. Additionally, decisions on changing suppliers, based on quality or price competitiveness, can be taken by analyzing supplier data to monitor performance. Furthermore, alternate pricing scenarios can be run instantly, which can enable a reduction in inventories and an increase in profit margins. Accordingly, big data can lead to the identification of the root causes of cost, and provide for better planning and forecasting.

Another area where big data analytics can be of value is performance management, where the governmental and healthcare industries can easily benefit. With the increasing need to improve productivity, staff performance information can be monitored and forecasted by using predictive analytics tools. This can allow departments to link their strategic objectives with the service or user outcomes, thus leading to increased efficiencies. Additionally, with the availability of big data and performance

information, as well as its accessibility to operations managers, the use of predictive KPIs, balanced scorecards, and dashboards within the organization can introduce operational benefits by enabling the monitoring of performance, as well as improving transparency, objectives setting, and planning and management functions.

2.3 Quality Management and Improvement

Especially for the manufacturing, energy and utilities, and telecommunications industries, big data can be used for quality management, in order to increase profitability and reduce costs by improving the quality of goods and services provided. For example, in the manufacturing process, predictive analytics on big data can be used to minimize the performance variability, as well as prevent quality issues by providing early warning alerts. This can reduce scrap rates, and decrease the time to market, since identifying any disruptions to the production process before they occur can save significant expenditures. Additionally, big data analytics can result in manufacturing lead improvements. Furthermore, real-time data analyses and monitoring of machine logs can enable managers to make swifter decisions for quality management. Also, big data analytics can allow for the real-time monitoring of network demand, in addition to the forecasting of bandwidth in response to customer behavior.

Moreover, healthcare IT systems can improve the efficiency and quality of care, by communicating and integrating patient data across different departments and institutions, while retaining privacy controls. Analyzing electronic health records can improve the continuity of care for individuals, as well as creating a massive dataset through which treatments and outcomes can be predicted and compared. Therefore, with the increasing use of electronic health records, along with the advancements in analytics tools, there arises an opportunity to mine the available de-identified patient information for assessing the quality of healthcare, as well as managing diseases and health services.

Additionally, the quality of citizens' lives can be improved through the utilization of big data. For healthcare, sensors can be used in

hospitals and homes to provide the continuous monitoring of patients, and perform real-time analyses on the patient data streaming in. This can be used to alert individuals and their health care providers if any health anomalies are detected in the analysis, requiring the patient to seek medical help. Patients can also be monitored remotely to analyze their adherence to their prescriptions, and improve drug and treatment options.

Moreover, by analyzing information from distributed sensors on handheld devices, roads, and vehicles, which provide real-time traffic information, transportation can be transformed and improved. Traffic jams can be predicted and prevented, and drivers can operate more safely and with less disruption to the traffic flow. Such a new type of traffic ecosystem, with “intelligent” connected cars, can potentially renovate transportation and how roadways are used. Accordingly, big data applications can provide smart routing, according to real-time traffic information based on personal location data. Furthermore, such applications can automatically call for help when trouble is detected by the sensors, and inform users about accidents, scheduled road-work, and congested areas in real-time.

Furthermore, big data can be used for better understanding changes in the location, frequency, and intensity of weather and climate. This can benefit citizens and businesses that rely upon weather, such as farmers, as well as tourism and transportation companies. Also, with new sensors and analysis techniques for developing long term climate models and nearer weather forecasts, weather related natural disasters can be predicted, and preventive or adaptive measures can be taken beforehand.

2.4 Risk Management and Fraud Detection

Industries such as investment or retail banking, as well as insurance, can benefit from big data analytics in the area of risk management. Since the evaluation and bearing of risk is a critical aspect for the financial services sector, big data analytics can help in selecting investments by analyzing the likelihood of gains against the likelihood of losses. Additionally,

internal and external big data can be analyzed for the full and dynamic appraisal of risk exposures. Accordingly, big data can benefit organizations by enabling the quantification of risks. High-performance analytics can also be used to integrate the risk profiles managed in isolation across separate departments, into enterprise wide risk profiles. This can aid in risk mitigation, since a comprehensive view of the different risk types and their interrelations is provided to decision makers.

Furthermore, new big data tools and technologies can provide for managing the exponential growth in network produced data, as well reduce database performance problems by increasing the ability to scale and capture the required data. Along with the enhancement in cyber analytics and data intensive computing solutions, organizations can incorporate multiple streams of data and automated analyses to protect themselves against cyber and network attacks.

As for fraud detection, especially in the government, banking, and insurance industries, big data analytics can be used to detect and prevent fraud. Analytics are already commonly used in automated fraud detection, but organizations and sectors are looking towards harnessing the potentials of big data in order to improve their systems. Big data can allow them to match electronic data across several sources, between both public and private sectors, and perform faster analytics.

In addition, customer intelligence can be used to model normal customer behavior, and detect suspicious or divergent activities through the accurate flagging of outlier occurrences. Furthermore, providing systems with big data about prevailing fraud patterns can allow these systems to learn the new types of frauds and act accordingly, as the fraudsters adapt to the old systems designed to detect them. Also, SNAs can be used to identify the networks of collaborating fraudsters, as well as discover evidence of fraudulent insurance or benefits claims, which will lead to less fraudulent activity going undiscovered. Thus, big data tools, techniques, and governance processes can increase the prevention and recovery of fraudulent

transactions by dramatically increasing the speed of identification and detection of compliance patterns within all available data sets.

3 Conclusion

In this research, we have examined the innovative topic of big data, which has recently gained lots of interest due to its perceived unprecedented opportunities and benefits. In the information era we are currently living in, voluminous varieties of high velocity data are being produced daily, and within them lay intrinsic details and patterns of hidden knowledge which should be extracted and utilized. Hence, big data analytics can be applied to leverage business change and enhance decision making, by applying advanced analytic techniques on big data, and revealing hidden insights and valuable knowledge.

Accordingly, the literature was reviewed in order to provide an analysis of the big data analytics concepts which are being researched, as well as their importance to decision making. Consequently, big data was discussed, as well as its characteristics and importance. Moreover, some of the big data analytics tools and methods in particular were examined. Thus, big data storage and management, as well as big data analytics processing were detailed. In addition, some of the different advanced data analytics techniques were further discussed.

By applying such analytics to big data, valuable information can be extracted and exploited to enhance decision making and support informed decisions. Consequently, some of the different areas where big data analytics can support and aid in decision making were examined. It was found that big data analytics can provide vast horizons of opportunities in various applications and areas, such as customer intelligence, fraud detection, and supply chain management. Additionally, its benefits can serve different sectors and industries, such as healthcare, retail, telecom, manufacturing, etc.

Accordingly, this research has provided the people and the organizations with examples of the various big data tools, methods, and technologies which can be applied. This gives users an idea of the necessary technologies

required, as well as developers an idea of what they can do to provide more enhanced solutions for big data analytics in support of decision making. Thus, the support of big data analytics to decision making was depicted.

Finally, any new technology, if applied correctly can bring with it several potential benefits and innovations, let alone big data, which is a remarkable field with a bright future, if approached correctly. However, big data is very difficult to deal with. It requires proper storage, management, integration, federation, cleansing, processing, analyzing, etc. With all the problems faced with traditional data management, big data exponentially increases these difficulties due to additional volumes, velocities, and varieties of data and sources which have to be dealt with. Therefore, future research can focus on providing a roadmap or framework for big data management which can encompass the previously stated difficulties.

We believe that big data analytics is of great significance in this era of data over-flow, and can provide unforeseen insights and benefits to decision makers in various areas. If properly exploited and applied, big data analytics has the potential to provide a basis for advancements, on the scientific, technological, and humanitarian levels.

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Artificial Intelligence in Education

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Abstract—

This work describes how Artificial Intelligence can be used and is being used in Educational sector. According to the 21st International Conference on Artificial Intelligence in Education held in 2020, AIED is one of the currently emerging fields in Educational technologies. The use of AI is still unclear for the educators how to make pedagogical advantage of it on a broader scale and how AI can impact on teaching and learning in higher education. The impact of AI in education and its pros and cons are presented here. It also describes a specific way to develop AI enabled platform for education and finally the after effects of AI in education.

Introduction

According to the 2018 Horizon report, experts anticipate that the use of AI in the education to grow by 43% in the period of 2018 – 2022. Application of AI in education has been a subject of research from the past 30 years. The report made by Research and Markets, in 2019 global AI Education market reached \$1.1 billion and estimated to reach over \$25.7 billion by 2030.

The precursors on the application of AI in education is found in the works of the psychologists B.F. Skinner, also known as the father of behaviorism who was a professor at Harvard University from 1948 until his retirement in 1974, and Sidney Pressey who was a professor at Ohio State University in the 1920's.

AI in Education

The International Artificial Intelligence in Education society (AIED) is an inter disciplinary community at the frontiers of the fields of computer science, education and psychology. The International AIED society was launched on 1st January 1997. It gathers researchers by holding the International Journal of AI in Education (IJAIED) and AIED conference series.

In general, there are four areas of AIED in academic support services, and institutional and administrative service such as Profiling and Prediction, Assessment and Evaluation, Adaptive systems, Personalization and intelligent tutoring systems. The field AI is both innovative and derivative. Artificial Intelligence is an emerging technology that started modifying educational tools

and institutions. Education is a field where the presence of teachers is must which is the best educational practice the advent of Artificial Intelligence changes the teacher's job that is irreplaceable in the education system. The AI uses mainly advanced analytics, deep learning and machine learning form on it or in the speed of a particular individual among the others.

As the solutions in AI continue to get to higher level it helps to identify the gaps in teaching and learning and increases the proficiency of education. AI can drive efficiency, personalization and streamline admin tasks to allow teachers the time and freedom to provide understanding and adaptability- uniquely human capabilities where machines would struggle. With the combination of machines and teachers it is possible to pull out the best results from students.

Impact of AI in Education

Almost AI impacts every area of our life in the future and out of those entire Education sector will be impacted hugely because teaching and learning is a major part of life and the current education system has a lot of changes to be desired. The schooling in olden days is not as flexible as what the future AI in education will present. The teachers that play the most important role in education system are not scalable and are expensive as well. In some of the countries teachers are given a heavy load of paper work and are undervalued. AI can help each individual separately by giving them separate curriculum based on the interest and skill assessments

Advantages of AI in Education

At present young people tend to use lot of time using their smartphones or tablets. This gives

them a chance to study for ten to fifteen minutes in their freetime by using AI applications. AI helps us understand the mood or ease of student during the lectures by using Gesture Recognition Technology. Since AI becomes more sophisticated the machine reads the facial expressions or gestures of the student and uses them to know if the student is struggling to understand the lecture and alter the lesson so that the student can follow up easily.

The customization of the academic curriculum can be done by AI powered machines. AI tools can make global classrooms possible including people who are visually or hearing impaired. This can also help students who cannot attend classes due to illness. In the normal education system, the teacher grades the students on their homework and tests, which would consume a lot of time. Here when AI steps in it would make a quick work out of these tasks. It also helps in suggesting the ways to overcome the gaps in learning.

AI provides with several resources to people who speak different languages or have hearing or visual difficulties. Presentation Translator provides subtitle in real-time mode, which is an AI based system application. For example, with the help of Google translator students can read and hear in their national language. For more interactive sessions modern technologies like VR and gamification are helpful.

There were already some setups where multiple-choice tests were graded through machines and now developments are being made in the direction where written type answers like paragraphs, statements can be graded using machines. This makes the work of a teacher easier and no time is wasted and this saved time can be used to concentrate more on individual student assessment and the development.

Admissions and enrollment processes can also be done with AI in the future and its full potential is yet to be out. AI can help students in their homework or test preparations at home. AI in the near future will be able to respond to a range of learning styles. It's all thanks to Artificial Intelligence that tutoring and studying programs are becoming more advanced.

AI applications such as AI mentors for learners are being developed for education.

AI can create groups in students who are suited for particular tasks. This is known as Adaptive Group Formation. AI application software which can instantly grade student's essays. The essays are added into a central database and the future essays can be compared using the previous essays present in the database. Artificial intelligence in education is a computer-based technology that provides personalized, adaptive and insightful teaching. The key parts of the AIED system are Domain Knowledge model that provides the capability of the system to complete the tasks that makes the students to judge and contribute towards the solution. The Student Model that provides representation of the learner in terms of their developing knowledge and skills. The Model of Pedagogy is the component that represents teaching capability of the system and finally the Interface component that provides the channel through which the learner and the system communicate.

The other component of AI that is highly useful in education is Voice Assistant. It's a groundbreaking application of AI. This includes Google Assistant, Cortana from Microsoft, Apple's Siri and Alexa from Amazon. The voice assistants help student stop converse directly with the education material that are present in the internet and the installed devices without any involvement from their teacher.

The traditional methods of learning are becoming old fashioned and are slowly being discarded by various educational institutions and some universities. They have already started offering students voice assistants instead of providing them with printed study material or websites with complicated information for their campus related information. As an example, there is the Arizona State University is offering Amazon's Alexa to their new students as an attempt to provide the students with more regular concise and precise institutional information regarding their campus needs.

Voice Assistants can be used at home and other non-education all occasions to access any learning assistance. Voice Assistants main aim here is to provide answers for the common questions regarding campus needs or for a particular schedule and courses of each student which helps the institution in cutting down the printing expenses of

handbook that are only used temporarily during the initial period of the joining in the institution and supports in reducing their requirement for internal support. The use of this technology is expected to be escalated in the coming years.

As artificial intelligence is becoming a rapidly increasing aspect of our daily lives, no wonder education systems are racing to catch up with them to cultivate more talent in order to keep the AI growth engine going. However, education is not only developing as far as science, technology, engineering and mathematics (STEM) are concerned. But the education industry is being changed by AI curriculum. Smart systems are rapidly changing educational institutions from elementary to higher education, as well as adult and advanced learning, to help people learn efficiently and fulfill the learning goals.

The Intelligent Tutoring System is used to stimulate one-to-one personal tutoring. Depending on their works, algorithms they can make a decision against an individual student. Students are already being exposed to the vast number of possibilities for higher education with the help of AI. AI can totally bring advanced changes in the field of education. Robots can increase the grammatical strength and create digital content. The classrooms had already started digitalized teaching.

The wave of investments and the increased interests in artificial intelligence will impact the universities in the times to come. The increase in the international student market, democratization of higher education and the increase in the financial pressure with respect to the increase in the number of students who like to undergo higher education will stand as the pillar reasons to seek out AI in higher education.

AI Based Solutions in Education

There is a lot of tech-driven solutions in the industry of education like Dream Box, Khan Academy, Achieve3000, etc... There are several educational platforms based on AI technology. Third Space Learning Little Dragon CTI Brainy Thinker Math Carnegie Learning The Third Space Learning system was created with the help of scholars from London University College. It helps to recommend the ways to make the teaching techniques better, like giving a warning when the

explanation of teacher is either slow or very fast. The Little Dragon creates smart applications that analyze the user's facial expressions or gestures and adapt the user interface accordingly. Little Dragon also creates educational games for kids.

Several companies such as Carnegie Learning and Content Technology started the implementation of AI for testing, learning and for taking feedback in educational system from Pre-KG to college level by developing high level instruction design and digital platforms. An online service called Cram101 by the company CTI uses artificial intelligence to study the text books and the or epical papers and pinpoint the highlights of the material online. It also generates practice tests and flash cards as student exercises. Another platform known as Netex Learning dedicated itself to the application of new technologies in the world of learning and works on delivering digital learning in educational institutions and companies. It promotes the tutors to promote digital curriculum used audio, video and voice assistants etc. The technologists think that the teacher could be replaced by robots in the mere future. Augmented reality will also be a part of classroom.

Developing Of an AI Enabled Platform For Education

There are six main steps to develop an AI platform for education.

- Step 1. Study the existing solutions.
- Step 2. Consider the content of the application which should be both interesting as well as interactive.
- Step 3. Discuss the requirements of your project with the development team.
- Step 4. The application should be thoroughly and properly tested to avoid bugs.
- Step 5. Promote the app and get the feedback after its release.
- Step 6. Update your app regularly.

Initially we must make so many allusion the existing solutions carefully and add new feature to them so that the user gets attracted to your solution instead of the others. Study the design ideas. User's always prefer the useful content so you can choose topics like Medicine, Literature, Math and others. This useful content can also be obtained from tutors of various universities or

colleges and from various sources like courses , training programs.

You need to clarify the business goals and project requirements before the project development. The development team must be an experienced team of software developers and they need to have experience in Artificial Intelligence. You can create a simple startup version of your application or platform and after taking feedback from the users and their reviews you can update your platform on a regular basis adding extra content or extra features. Excellent user experience should be provided in order to attract more users. This can happen when there are no complaints from the users end and for this to happen we should find and fix the bugs before launching the platform. This bug fixing can be done by qualified Quality Assurance Engineers. Regular upgrade of the platform is needed based on the user's feedback.

Disadvantages of AI in Education

Despite of the huge opportunities AI offers there might also be some potential risks with it. AI is likely to become either the best or the worst thing that might happen to humanity. AI could support teaching and learning but new ethical implication and risks emerge with the development of AI applications in higher education. One such example is, due to the ongoing corona virus pandemic and the budget cuts, the administrators might think of replacing teaching with profitable automated AI solutions. If the usage of AI in education increases there might be chance that personal interactions get decreased and student's get technology addicted and sometimes this may hurt the learners instead of helping them.

The faculty members, student counselors, teaching assistants and administrative staff might get feared that the Intelligent Tutor System which is application of AI might replace them. AI system requires a huge amount of data including information of students and staff which is confidential and it heads to serious privacy issues. When compared to the cost of installation, maintenance and repair AI is highly expensive. Only the heavily funded educational organizations can allow themselves to enjoy such high technology. When relied on this technology too much it can cause lack of personal connections and

might hurt the users in this perspective. When something like natural disasters or accidents occur and an AI needs repairs we can never know how much amount of data is lost. So the educational system should start exposing their students to this sort of technology which started using a bit of AI. The impact of AI will be seen first in the lowest education levels and gradually increase to the higher education.

The ultimate impact of AI in education will only decide by the time. The main aim of AI is to make the work of an educator easier but not to replace them.

Conclusion

AI in education is evolutionary change. According to a report issued by Centre for Integrative Research in Computer and Learning Sciences states that the next level uses of AI in Education is not yet invented. So the people working on AI applications should let the educators and education policy makers know about this in depth. Although there are several cons of using AI in educational sector, our future is AI.

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A Study of Impact of Digital Banking on Rural India

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Abstract :

In Modern Economy bank are to be considered not as dealers in money but as the leaders of development. They play important role in the Mobilization of deposit and distribution of credits to ongoing and its constituted by differing degrees of banking services digitalization. They easy accessibility of digital banking services has strengthened India's Initiatives to bridge the economic gap between rural and urban areas. Digital Banking is also helping to increase financial inclusion in rural areas. Digital banking provides a safer space for the rural population to bank. Greater financial inclusion can be accomplished by creating wider access to banking services. It also increases cashless transactions, minimizing the possibility of cash-based crimes.

Keywords : Digitalisation ,Banking Services ,Rural Area, Easy Accessibility , urban areas.

Introduction:

Banking that is done through the digital platform without any paperwork is referred to as digital banking. It means the availability of banking services online .Digital Banking is the automation of traditional banking services. Digital banking enables a bank's customers to access banking products and services via an electronic/online platform. It digitizing all of the banking operations and substituting the bank's physical presence with an everlasting online presence, eliminating a consumer's need to visit a branch.

The banking industry has witnessed tremendous growth in volume and complexity during the last few decades. The people who reside in rural areas many times are unable to pay visit to branches located at distinct places due to time, cost, opportunity. Therefore it has instigated banks to reach out customers through a variety of technology driven delivery channels such as micro ATMs, biometric ATMs, Mobiles app, and smart cards. Digital banking platforms are also very secure, which is particularly important for people living in rural areas. The risk of theft is much higher in rural areas, and people may be reluctant to carry large sums of money with them when visiting bank branches. With online banking, people can carry out transactions securely without having to carry large sums of money. Digital banking platforms use encryption and other security measures to protect

user information and prevent fraud, which gives people living in rural areas peace of mind when carrying out financial transactions.

By making the rural population bankable and giving them the resources they need for business and other economic activities, digital banking increases small businesses' access to credit. The ability to improve one's financial literacy and acquire money management skills is another benefit of online banking platforms.

Objectives of this Study :

1. To understand the meaning of Digital Banking
2. To understand the Impact of Digital Banking on Rural Areas.
3. To Know the Importance of Digital Bank for rural community.
4. To know the uses of Digital Banking to the rural areas.
5. To understand the government Initiatives for digitalisation banking in rural areas.

Research Methodology:

The present research paper is mainly based on Secondary data. The Secondary data collected from various Sources Such as Journal ,research paper, Magazines, Internet ,and Government data etc.

What are the challenges faced in rural banking?

Digital Banking Services Some of the digital banking services are- National Electronic Fund Transfer, Real Time Gross Settlement, Debit

and Credit Cards, Mobile Banking, Inter Bank Mobile Payment System, etc., National Electronic Fund Transfer, Real Time Gross Settlement, Mobile Banking, Inter Bank Mobile Payment System, etc. The implementation of these services in rural areas of India is not as easy from the perspective of banks as there are various problems and challenges that need to be tackled. Issues and challenges of rural banking digitalization in the introduction of rural banking digitalization, there are numerous issues and challenges:

The main barriers to increasing the use of banking services in rural areas are a lack of trained staff, inadequate funding and intense political interference. The Current demonetization has pushed the entire country toward cashless or at least less-cash economy. However, there is vast difference between Bharat (Rural India) and India (Urban India). Rural areas have multiple challenges in its transition to cashless/less cash economy. Multipronged approach needed to overawed these challenges. Lack of infrastructural facilities: rural banking digitalization includes the availability of infrastructural facilities; we mainly consider electricity and communication networks here. According to the World Bank Survey, nearly 96 percent of villages in India are electrified, but only 69 percent of homes have electricity connections.

- Less mobile users: the amount of people using smartphones in rural areas is far smaller, which is a significant impediment to the digitalization of rural banking.
- Lack of banking habits among rural people: because of a lack of banking knowledge and a lack of financial literacy, most people in rural areas do not have access to banking.
- Network problems in rural areas: internet networks are a challenge where there are less digital payments that need to be tackled in rural areas.
- Lack of financial literacy: There is far less financial literacy among rural people, so people are not aware of various types of payments.
- Cash economy: rural India relies primarily on cash to meet their daily needs than digital cash, as the transaction occurs primarily with the help of cash or barter type.

- Transaction rate: The volume of transactions in rural areas is much lower due to lower demand for commodities and low income levels.
- Customer resistance to emerging technologies: in the case of the use of technology, the rural population does not change as easily as the lack of knowledge of the use of digital banking services.
- Financial services costs: the expense of delivering financial services in rural areas is too high, due to the lack of infrastructure and the low volume of transactions in rural areas.

Benefits of Digital Banking

Advancing to a more technologically sophisticated way of doing things, it goes without saying that the benefits long outweigh the costs. Similarly, digital banking as a technological by-product aims to make life easier for the customers of a bank. Digital banking has the following benefits:

- Digital banking enables rural consumers to perform banking functions from the comfort of their homes, without any circumstances. It also **offers convenience**.
- Elaborating on the convenience offered, digital banking lets a user carry out banking work around the clock, with **24*7 availability of access** to banking functions.
- One of the biggest drawbacks of traditional banking was the overly placed importance on paper. Banking has become **paperless** with the development of digital banking as a service. A user can log into their account at any point in time to monitor records.
- Digital banking allows a user to **set up automatic payments** for regular utility bills such as electricity, gas, phone, and credit cards. The customer no longer has to make a conscious effort of remembering the due dates. The customer can opt for alerts on upcoming payments and outstanding dues.
- Digital banking extending **services to remote areas** is seemingly a step toward holistic development. With smartphones at affordable prices and internet access in remote areas, the rural population can make the most out of digital banking services.

- With the help of digital banking, a user can report and block misplaced credit cards at the click of a button. This benefit greatly **strengthens the privacy** and security available to a bank's customers.
- By promoting a cashless society, digital banking **restricts the circulation of black money** as the Government can keep a track of fund movements. In the long run, digital banking is expected to lower the minting demands of a currency.

Conclusion:

Digitalization beneficial for reserve transaction records that the customer and banker can effortlessly access. One of the key ways digital banking helps the rural population is by facilitating greater access to banking services. Since bank branches are few in rural areas, visiting them is a significant challenge, as people living in these areas often have to travel long distances to access banking services. The role of digital banking in the rural development of India, By making the rural population bankable and giving them the resources they need for business and other economic activities, digital banking increases small businesses' access to credit. The ability to improve one's financial literacy and acquire money management skills is another benefit of online banking platforms. Digital banking, on the other hand, has enabled people living in rural areas to access their bank accounts from the convenience of their homes or places of business. They have the ability to conduct transactions like bill payment, money transfers, deposit account creation, checking account balances, and more. This makes it much easier for them to manage their finances without having to travel long distances.

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आत्मनिर्भर भारत अभियानास उपयुक्त, शैक्षणिक ग्रंथालयातील अध्ययन
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सार :

शैक्षणिक महाविद्यालयीन ग्रंथालयामध्ये अध्ययन आणि संशोधनावर अधिक भर दिला जातो. देशाच्या प्रगतीसाठी संशोधन अत्यंत महत्त्वाचे आहे. त्या अनुषंगाने संपूर्ण जगाचे लक्ष संशोधनावर लागलेले असते. तसेच व्यक्तिमत्त्व विकास साधने, ज्ञान संपादन करणे, स्वालंबी होण्यासाठी कोणत्या क्षेत्रात संधी उपलब्ध आहेत याची माहिती घेणे. यासाठी ग्रंथालयाचे महत्त्व अनन्यसाधारण आहे. ग्रंथालय वाचकांना या बाबी माहित करून देण्यासाठी प्रेरक उपक्रमांचे आयोजन करीत असते. NAAC, NBA, AICTE आणि NIRF यासारख्या एजन्सी उच्च शिक्षणातील गुणवत्तेबद्दल खूप चिंतीत आहेत. शिक्षणाचा दर्जा वाढविण्यासाठी ग्रंथालयाचा जास्तीत जास्त वापर व्हावा. अध्यापन, शिकण्याच्या प्रक्रियेची गुणवत्ता वाढविण्यासाठी प्रेरक उपक्रम सातत्याने घेणे व नवीन उपक्रम वाढविण्यावर या संशोधनामध्ये भर दिला आहे. प्रत्येक ग्रंथालयाच्या माध्यमातून विकास झाल्यास आत्मनिर्भर भारत अभियानास ते उपयुक्तच आहे.

कीवर्ड : ग्रंथालये, शैक्षणिक लायब्ररी, प्रेरक उपक्रम, ग्रंथालय गुणवत्ता

प्रस्तावना :

आत्मनिर्भरतेचा आणि ग्रंथालयाचा फार जवळचा

संबंध आहे. व्यक्तिमत्त्व विकासच नव्हे तर संपूर्ण जीवन घडण्यामध्ये, वाचन संस्कृती टिकविण्यामध्ये ग्रंथालयाची भूमिका अतिशय महत्त्वाची आहे. अध्ययन आणि संशोधन करण्यासाठी ग्रंथालयातील प्रेरक उपक्रम संशोधकांसाठी दिशा दर्शक ठरू शकतात. याचा अभ्यास संशोधक या संशोधनामध्ये करीत आहे.

ज्ञान संपादन करणे, आजीवन शिक्षण आणि वाचकांच्या विकासाला चालना देण्यासाठी ग्रंथालये महत्त्वपूर्ण भूमिका बजावत असतात. स्वालंबी भारत मिशनच्या संदर्भात, ग्रंथालये विविध क्षेत्रात संशोधन आणि नवकल्पना वाढविण्यात प्रमुख भूमिका बजावू शकतात. म्हणूनच, ग्रंथालयांमधील प्रेरक उपक्रमांचा अभ्यास केल्याने त्यांचा वाचकांवर कसा प्रभाव पडू शकतो याविषयी मार्गदर्शन या संशोधन पेपर मध्ये केले आहे. तसेच काही नवीन प्रेरक उपक्रमांचा अभ्यास यामध्ये समाविष्ट आहे.

DEFINITION Best Practice

Oxford English Dictionary describes 'Best practices as quality of most excellent or desirable type or most appropriate, advantageous, highly improved, outstanding, par excellence services or the customary or expected procedure or way of doing something that is usual or expected way in a particular organization or situation, guidelines for good practices. In this process of developing best practices we take action rather than good ideas, and we improve our skills.'

According to National Board of Accreditation and Assessment (NAAC) 'Best practice may be innovative and be a philosophy, policy, strategy, program, process or practice that solve a problem or create new opportunities and positively impact on organizations. Institutional excellence is the aggregate of the best practices followed in different areas of institutional activities.'

महाविद्यालयीन ग्रंथालयातील प्रेरक उपक्रम

महाविद्यालयीन ग्रंथालयामध्ये अध्ययन आणि संशोधनास प्रेरक विविध उपक्रम राबविले जातात. पारंपारिक, आधुनिक, तंत्रज्ञानावर आधारित, सर्वसाधारण वाचकांच्या गरजेनुसार खालील प्रमाणे उपक्रम राबवून आत्मनिर्भर भारत या संकल्पनेस ग्रंथालय सहायभूत ठरू शकतात.

1. ग्रंथ प्रदर्शन : ग्रंथ प्रदर्शनाच्या माध्यमातून ग्रंथालयातील विविध ग्रंथांची ओळख वाचकांना होते. ग्रंथांची गोडी वाचकांना लागते. त्यांना माहित नसलेली ग्रंथसंपदा त्यांच्या नजरेस पडल्यावर तो ग्रंथ वाचनाची त्यांच्यामध्ये आवड निर्माण होते.
2. आउटरीच कार्यक्रम: यामध्ये बुक क्लब, कार्यशाळा, लेखक चर्चा आणि वाचन स्पर्धा यांचा समावेश असू शकतो. याद्वारे वाचकांना सुरेख बनविण्यात आणि त्यांना अधिक प्रभावी बनविण्यात मदत होऊ शकते.
3. संसाधन सुलभता: लोकांना ग्रंथालयांना भेट देण्यासाठी प्रवृत्त करण्यासाठी संसाधनांच्या विस्तृत श्रेणीची उपलब्धता आवश्यक आहे. ग्रंथालय पुस्तके, ई-बुक्स, ऑडिओ बुक्स, रिसर्च पेपर्स आणि इतर संसाधनांमध्ये प्रवेश मिळू शकतो. या संसाधनांचा वापर पद्धतीचा अभ्यास केल्याने ग्रंथालयांना संसाधनांचे अधिक चांगल्या प्रकारे वाटप करण्यात आणि त्यांच्या वापरकर्त्यांच्या गरजा पूर्ण करण्यासाठी त्यांचे संग्रह तयार करण्यात मदत होऊ शकते.
4. सामुदायिक संलग्नता: ग्रंथालये कार्यक्रम, कार्यशाळा आणि इतर उपक्रम आयोजित करून त्यांच्या समुदायाशी संलग्न होऊ शकतात. विविध पार्श्वभूमीतील लोकांना एकत्र आणण्यासाठी आणि विचारांच्या देवाणघेवाणीला प्रोत्साहन देण्यासाठी या कार्यक्रमांची रचना केली जाऊ शकते. या इव्हेंटमधील सहभाग दर आणि अभिप्राय यांचा अभ्यास केल्याने ग्रंथालयांना त्यांच्या समुदायाच्या गरजा चांगल्या प्रकारे समजण्यास आणि त्यानुसार त्यांचे कार्यक्रम आखण्यास मदत होऊ शकते.
5. तंत्रज्ञानाचा अवलंब : ग्रंथालये त्यांच्या वापरकर्त्यांना नाविन्यपूर्ण सेवा देण्यासाठी तंत्रज्ञानाचा लाभ घेऊ शकतात. उदाहरणार्थ, ग्रंथालयातील ऑनलाइन संसाधने, आभासी संदर्भ सेवा आणि ई-लर्निंग

प्लॅटफॉर्म देऊ शकतात. या सेवांच्या वापर पद्धती आणि समाधानाच्या दरांचा अभ्यास केल्याने ग्रंथालयांना सुधारणेसाठी क्षेत्रे ओळखण्यास आणि त्यांच्या वापरकर्त्यांना चांगल्या सेवा प्रदान करण्यात मदत होऊ शकते. यासाठी N-List, Delnet, Web OPAC, यांच्या साहाय्याने तंत्रज्ञान आधारित सेवा देवू शकता तसेच सोशल मिडीयाच्या साहाय्याने जसे की, YouTube, Blog, face book twitter, ग्रंथालयाची स्वतंत्र वेबसाईट याद्वारे मोबाईल सेवा देवू शकता.

6. वाचन कार्यक्रम: वाचन कार्यक्रम आयोजित केल्याने लोकांना आपल्या उद्दिष्टांशी संबंधित विविध विषयांवरील पुस्तके वाचण्यास प्रोत्साहित केले जाऊ शकते. हे मिशनच्या उद्दिष्टे आणि उत्कृष्ट ग्रंथ वाचक, जागरूकता आणि समज वाढविण्यात मदत करू शकते.
7. कौशल्य-निर्माण कार्यशाळा: ग्रंथालये संगणक प्रोग्रामिंग, 3D प्रिंटिंग आणि रोबोटिक्स यांसारख्या विविध कौशल्यांवर कार्यशाळा आयोजित करू शकतात. या कार्यशाळा लोकांना नवीन कौशल्ये आत्मसात करण्यास आणि नवकल्पना वाढविण्यात मदत करू शकतात.
8. भाषणे आणि व्याख्याने: उद्दिष्टांशी संबंधित विषयांवर बोलण्यासाठी तज्ञांना आमंत्रित करणे लोकांना प्रेरित करण्याचा एक चांगला मार्ग असू शकतो. या चर्चेत शाश्वत शेती, अक्षय ऊर्जा आणि उत्पादन तंत्र यासारख्या विषयांचा समावेश केला जाऊ शकतो.
9. स्पर्धा: निबंध, वादविवाद, वक्तृत्व यासारख्या स्पर्धासह संलग्न 18 तास अभ्यास करण्याच्या स्पर्धा, उत्कृष्ट ग्रंथ वाचक, उत्कृष्ट ग्रंथ परीक्षक, यासारख्या स्पर्धांचे आयोजन केल्याने लोकांना उद्दिष्टांशी संबंधित समस्यांवर सर्जनशील उपाय शोधण्यासाठी प्रोत्साहन मिळू शकते.
10. तंत्रज्ञानात प्रवेश: संगणक, इंटरनेट आणि 3D प्रिंटर यांसारख्या तंत्रज्ञानामध्ये प्रवेश प्रदान केल्याने लोकांना नवीन निर्मिती आणि नवनिर्मिती करण्यास प्रशिक्षणाद्वारे सक्षम करता येते.
11. सहयोगी प्रकल्प: लायब्ररी वापरकर्त्यांमधील सहकार्याला प्रोत्साहन देऊन नावीन्य आणि सर्जनशीलता वाढू शकते. ग्रंथालयाची जागा आणि

संसाधने देऊन सहयोगी प्रकल्पांना मदत करू शकतात.

12. डेटाबेस

काही प्रेरक उपक्रम जे ग्रंथालयांमध्ये राबवले जाऊ शकतात याशिवाय मानक सॉफ्टवेअरसह ग्रंथालयाचे संगणकीकरण करणे, महाविद्यालयाच्या माहितीपत्रकांमध्ये ग्रंथालयाविषयी पुरेशी माहिती समाविष्ट करणे., विद्यार्थी/शिक्षकांची आकडेवारी संकलित करणे, वर्तमानपत्राच्या कात्रण फाइल वेळोवेळी राखून ठेवणे., करिअर/रोजगार माहिती सेवा देणे, विविध वापरकर्ता गटांना इंटरनेट सुविधा पुरविणे, माहिती साक्षरता कार्यक्रम राबविणे, सूचना पेटीतील सूचनांचे पालन करणे, नवीन विद्यार्थ्यांचे स्वागत कार्यक्रम राबविणे, वेगवेगळ्या प्रसंगी पुस्तक प्रदर्शन भरवणे, पुस्तक चर्चा आयोजित करणे, विद्यार्थ्यांसाठी वार्षिक सर्वोत्तम वापर पुरस्काराची निवड करणे, दरवर्षी विविध स्पर्धांचे आयोजित करणे., विविध कोर्सेसचे आयोजन करणे, माहिती सेवा पुरविणे, बुक बँक योजना राबविणे, मैत्रीपूर्ण व्यवहार करणे, अभ्यासिकेची सोय करणे, ग्रंथालयाची वेळ वाढविणे, कर्मचारी यांना प्रशिक्षण देणे, विद्यार्थ्यांशी हितगूज साधने, संसाधनाची माहिती देणे, ग्रंथसंख्या वाढविणे, डिजिटल ग्रंथालय करणे, ईबुक्स व ई जर्नलस खरेदी करणे, आंतर ग्रंथालयीन देवघेव वाढविणे यासह अनेक प्रेरक उपक्रम ग्रंथालयाच्या माध्यमातून घेता येतील. संदर्भ सेवा देणे, वर्तमानपत्र कात्रण सेवा देणे, माहितीचे प्रसारण करणे, दृक- श्राव्य साधनांचा वापर व खरेदी वाढविणे, कर्मचारी यांना सातत्याने प्रशिक्षण देणे, ग्रंथालयातील स्वच्छता राखणे, ग्रीन लायब्ररी तयार करणे, ग्रंथोपस्कार करणे, तालीकीकरण, वर्गीकरण करणे, बारकोडचा वापर करणे, डिजिटल भांडार तयार करणे

निष्कर्ष :

एकूणच, ग्रंथालयांमधील प्रेरक उपक्रम हा स्वावलंबी भारत मिशनच्या उद्दिष्टांना चालना देण्यासाठी एक प्रभावी मार्ग असू शकतो. ज्ञान संसाधनांमध्ये प्रवेश प्रदान करून आणि शिक्षण आणि नवनिर्मितीला प्रोत्साहन देणारे वातावरण निर्माण करून, ग्रंथालये स्वयंपूर्ण भार स्वावलंबी भारत मिशनच्या उद्दिष्टाला चालना देण्यासाठी

ग्रंथालयातील प्रेरक उपक्रम महत्त्वपूर्ण ठरू शकतात. कृषी, उत्पादन आणि तंत्रज्ञान यासारख्या विविध क्षेत्रांमध्ये भारताला स्वयंपूर्ण बनवणे हे या अभियानाचे उद्दिष्ट आहे. यासाठी लागणाऱ्या मनुष्यबळास ग्रंथालय ज्ञान संसाधनांमध्ये प्रवेश प्रदान करून आणि लोकांना शिकण्यास आणि नवनिर्मितीसाठी प्रेरित करणारे वातावरण तयार करून या उपक्रमामध्ये योगदान देऊ शकतात.

ग्रंथालये आजीवन शिक्षणाला चालना देऊन, माहिती आणि ज्ञान संपादन करून स्वावलंबी भारत मिशनमध्ये महत्त्वपूर्ण भूमिका बजावू शकतात. प्रेरक उपक्रम आणि ग्रंथालयीन सेवा देऊन, ग्रंथालये अधिक माहितीपूर्ण, शिक्षित आणि नाविन्यपूर्ण समाज तयार करण्यात मदत करू शकतात. एकूणच, ग्रंथालयांमधील प्रेरक उपक्रम हा स्वावलंबी भारत मिशनच्या उद्दिष्टांना चालना देण्यासाठी एक प्रभावी मार्ग असू शकतो. ज्ञान संसाधनांमध्ये प्रवेश प्रदान करून आणि शिक्षण आणि नवनिर्मितीला प्रोत्साहन देणारे वातावरण निर्माण करून, ग्रंथालये स्वयंपूर्ण भारत घडविण्यात मदत करतील.

संदर्भ ग्रंथ

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महिला शेतमजुरांच्या आर्थिक स्थितीचे अध्ययन

कु.अलका मारुती कचरे

(एम.ए. अर्थशास्त्र सह. प्राध्यापक)

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प्रस्तावना -

शे

ती हा भारतीय अर्थव्यवस्थेचा कणा आहे. भारताने

आर्थिक विकासाचा मोठा टप्पा पूर्ण केला असला तरी अजूनही ६० ते ७० प्रतिशत लोकसंख्या शेतीवर अवलंबून आहे. या लोकसंख्येचे उत्पन्नाचे प्रमुख साधन शेती आहे. अन्न, वस्त्र आणि निवारा या मानवाच्या मुलभूत गरजांपैकी अन्नाची गरज शेती पूर्ण करते. त्यामुळे देशाच्या विकासात शेतीला प्रथम स्थान आहे. भारतीय अर्थव्यवस्थेचा विकास शेतीवर अवलंबून आहे. देशाच्या राष्ट्रीय उत्पन्नात शेतीचा वाटा १८.५ प्रतिशत इतका आहे. व्यवसायास लागणारा कच्चा माल शेतीमधून पुरविला जातो. तसेच उद्योगांच्या दृष्टीने शेती व्यवसाय महत्त्वाचा आहे. शेतमजूर हा भारताच्या कृषी अर्थव्यवस्थेचा आणि खेडे विभागातील आर्थिक व सामाजिक जीवनाचा एक अभिन्न व महत्वपूर्ण घटक आहे. नियोजन मंडळाच्या मते शेतमजुरांचा प्रश्न म्हणजे एक निःसंदिग्ध आव्हानच आहे आणि ह्या प्रश्नाची समाधानकारक सोडवणूक करण्याचे उत्तरदायित्व संपूर्ण समाजावर आहे. भारतासारख्या कृषी प्रधान देशात शेती व्यवसायाचा मुख्य आधारस्तंभ शेतमजूर असून शेतीची उत्पादकता मजुरांच्या कार्यक्षमतेवर अवलंबून आहे. शेतीच्या उत्पन्नावर शेतमजुरांच्या विकास आधारतेला असतो. परंतु दुर्दैवाने निकृष्ट राहणीमान व आर्थिकदृष्ट्या कमकुवतपणा यामुळे शेतमजुरांचे स्थान निम्न स्वरूपाचे आहे. उद्योगप्रधान देशाच्या तुलनेत भारतासारख्या कृषीप्रधान अर्थव्यवस्था असलेल्या देशात शेतमजुरांच्या वर्गाचा आकार देशाची लोकसंख्या, लोकसंख्या वाढीचा दर शेतीवर अवलंबून असणाऱ्या लोकसंख्येचा भाग, शेतीची स्थिती, शेतीमध्ये करण्यात येणारा यंत्राचा उपयोग, ग्रामीण विभागात जनतेला उपलब्ध असलेल्या रोजगाराच्या सोयी व नागरीकरणाची प्रक्रीया अशा अनेक बाबींवर अवलंबून आहे. सन २००१ मध्ये भारतात एकूण काम करणाऱ्या वर्गात शेतमजुरांचे प्रमाण २६.६९ प्रतिशत इतके होते. महाराष्ट्र राज्यात सन २००१ मध्ये एकूण क्रियाशील लोकसंख्येत शेतमजुरांचे प्रमाण २६.२६ प्रतिशत इतके होते. सन २००१ मध्ये विदर्भात एकूण काम करणारा वर्ग

७२.१२ इतका असून यात एकूण काम करणारे शेतमजूर २६.२७ इतके होते. हे प्रमाण ३६.४३ प्रतिशत इतके आहे.

शेतीच्या उत्पादनांमध्ये शेतमजुरांचा सहभाग महत्त्वाचा मानला जातो. एकूण गामीण लोकसंख्येत शेतमजुरांचे प्रमाण मोठे असते व त्यांची संख्या वेगाने वाढत गेलेली आढळते. आर्थिक व सामाजिक दृष्ट्या ते मागासलेले असतात, त्यांचे शोषण होत असते व देशातील तो एक दुर्लक्षित गट म्हणून ओळखला जातो. त्यांचे साधारणपणे चार प्रकारांत वर्गीकरण केले जाते. पहिला, जमीनदार किंवा जमीनमालकाचे सेवक म्हणून काम करणारे भूमिहीन मजूर. दुसरा, इतर कोणत्याही शेतकऱ्याकडे पूर्णवेळ सेवा करणारे भूमिहीन मजूर. तिसरा, स्वतःची थोडीफार जमीन असणारे पण शेती परवडत नसल्याने वर्षातील बहुतेक काळ दुसऱ्याच्या शेतावर मजुरी करणारे मजूर आणि चौथा, महिला स्वतःची शेती कसून झाल्यावर वर्षातील काही काळ दुसऱ्याच्या शेतावर नोकरी करून पूरक उत्पन्न मिळविणारे शेतमजूर यांपैकी कोणत्याही प्रकारात मोडणाऱ्या शेतमजूर व्यक्ती असल्या, तरी त्या सर्वांची समान वैशिष्ट्ये म्हणजे अत्यल्प, बेभरवशाचे तसेच चढउताराचे उत्पन्न, समाजातील खालच्या स्तरावरील जीवन, सातत्याने होणारी पिळवणूक, मागासलेले राहणीमान, सार्वत्रिक बेरोजगारी, कर्जबाजारीपणा इत्यादी. त्यांच्यापैकी मोठे प्रमाण समाजातील मागास जाती, जमाती, आदिवासी अशा उपेक्षित वर्गांचे असते. एका शासकीय अहवालानुसार भारतातील शेतमजुरांचे दरडोई दैनिक उत्पन्न १९७१ साली फक्त रु. ४.२८ होते, १९९४ साली ते रु. २६.८० झाले. देशात सातत्याने होणारी किंमतवाढ ध्यानात घेता शेतमजुरांचे वास्तव उत्पन्न कित्येक वर्षे कुंठित राहिलेले आहे, असा निष्कर्ष निघतो. देशातील दारिद्रेषेच्या खाली असणाऱ्या लोकसंख्येत शेतमजुरांचेच प्रमाण मोठे असते. एकूण शेतमजुरांपैकी सु. ४४ टक्के शेतमजूर कर्जबाजारी होते, असे १९५०-५१ सालच्या सर्वेक्षणात आढळून आले होते. त्यांचे प्रमाण वाढून ते सु. ७० टक्क्यांपर्यंत गेल्याचे नंतरच्या एका पाहणीत आढळले.

ग्रामीण भागातील महिला शेतमजूर हे औद्योगिक मजुरां वेगळेपेक्षा आहेत. औद्योगिक मजुरी संघटीत आहे आणि त्यांच्या श्रेत्रात चांगला पगार मिळतो पण शेतमजुरांची आर्थिक आणि सामाजिक स्थिती अतिशय दयनीय आहे. पुरेश्या रोजगाराचा अभाव, कमी वेतन कमी दर किमान वेतनाची कुचकामी अमलबजावणीपना, निराक्षरता, सामाजिक सुरक्षया योजना इत्यादी कारणांमुळे ते त्यांच्या मुलभूत गरजा पूर्ण करण्यासाठी उत्पन्न मिळून शकत नाही हि कारणे महिला शेमाजुरांची गरीब मागे आहे.

महिला शेती म्हणजे काय?

इतरांच्या शेतजमीनीमध्ये कृषीविषयक कामे रोजंदारी तत्वावर करण्यासाठी जाणारा मजूर म्हणजे महिला शेतमजूर होय.



प्रत्येक क्षेत्रात आज महिला पुरुषांच्या बरोबरीने कार्यरत असून, आपल्या कर्तृत्वाने त्यांनी विविध क्षेत्रांत गगनभरारीही घेतली आहे. भारतात महिलांनी विविध क्षेत्रात महिलांनी खुप प्रगती केली. शेती व्यवसायातही महिलांचे खुप मोठे योगदान आहे. भारत हा कृषिप्रधान देश असल्याने देशातील कमावत्या महिलांपैकी ८० टक्के महिलांना शेतीतून रोजगार मिळतो. त्यापैकी ३३ टक्के महिला शेतमजूर आहे तर ४८ टक्के शेतकरी महिला आहेत.

देशातील ६० ते ८० टक्के धान्य महिला शेतकरी पिकवतात तर ग्रामीण भागात ८५ टक्के महिला शेतीत काम करतात परंतु केवळ १३ टक्के महिलांच्या नावावर शेती असल्याची माहिती समोर आली आहे.

महिला शेतमजूर स्थिती

महिला शेतमजुरांचे वर्गीकरण केले तर शेतमजूर स्त्रिया व पुरुष असे वर्गीकरण केले जाते. यामध्ये पुरुष शेमाजूर पेक्षा स्त्री शेतमजुरांच्या घरची व बाहेरची आशी दोन्ही कामे [परीस्थिती] सांभाळावी लागते. त्यांना त्यांच्या कुटुंब कडे अधिक लक्ष्य द्यावे लागते. घरात अनेक वेळा बर्बाद समस्या असता. त्या सर्व समस्या त्यांना भेडसावत असतात अनेकवेळा शेतमजूर स्त्रियांच्या पतीचे निधन झालेले असते अश्या अनेक वेळीस त्यांना त्यान सर्व कुटुंब

सोबत घेवून जावे लागते. घरच्या कुटुंबाच्या उर्ध्वनिर्वाच्या, आरोग्याच्या आणि शिक्षणाच्या अनेक समस्या असतात पुढील प्रमाणे महिलांच्या समस्या दिसून येतात. यामध्ये गरिबी, महागाई, शिक्षणाचा अभाव, रोजगाराच्या संधी, पतीला कमी मजुरी, एकत्र कुटुंब, पतीचे व्यसन, घरातील सदस्य संखेत वाढ, पतीचा मृत्यू इ. दिसून येतात.

विषय निवड हेतू -

महिला शेतमजुरांच्या आर्थिक स्थितीचा चिकित्सक अभ्यास करणार असून महिलांना मजुरी व्यतिरिक्त दुसरे उत्पन्नाचे साधन उपलब्ध आहे का? त्यांना देण्यात येणारे वेतन योग्य आहे का? त्यांची सामाजिक स्थिती याचा अभ्यास करून त्यात सुधारणा करण्याच्या दृष्टीने एक प्रयत्न म्हणून सांगली जिल्ह्यामधील महिला शेतमजुरांच्या आर्थिक स्थितीचा अभ्यास करण्यात आली आहे.

उद्दिष्टे

- १] सांगली जिल्ह्यातील रोजगाराचा अभ्यास करणे.
- २] सांगली जिल्ह्यातील शेतमजुरांच्या आर्थिक स्थितीचा अभ्यास करणे.
- ३] सांगली शेतमजुरांच्या आर्थिक व सामाजिक समस्यांचा अभ्यास करणे.
- ४] सांगली जिल्ह्यातील शेतमजुरांच्या बेरोजगारीचा अभ्यास करणे.

गृहीतके

- १] महिला शेतमजुरात निरक्षरतेचे प्रमाण कमी आहे.
- २] महिला शेतमजुरांना वर्ष भर शेतीवर काम उपलब्ध होत नाही.
- ३] महिला शेतमजूरचे सामाजिक स्थान फार चांगले नाही.
- ४] महिलांच्या शिक्षणावर खर्च कमी केला जातो.

संशोधन पद्धती -

प्रस्तुत संशोधनातील स्त्रीवादी संशोधन पद्धतीचा वापर करण्यात आला आहे सर्वेक्षण पद्धतीने वापर करण्यात आला असून तसेच मुलाखत पद्धती वापर करण्यात आला आहे.

संशोधनाचा कालावधी

प्रस्तुत संशोधनातील कालावधी २०१७ ते २०२२ असे पाच वर्षांचा कालावधी घेण्यात आला आहे.

संशोधनाचा व्याप्ती

प्रस्तुत संशोधनाचे क्षेत्र हे सांगली जिल्यापुरते मर्यादित आहे. सांगली जिल्ह्यातील महिला या संशोधनाच्या व्याप्तीत येतील.

महिला शेतमजूर समस्या

सन १९५१ पासून भारताने पंचवार्षिक योजनांच्या माध्यमातून आर्थिक विकासाला सुरुवात केली. नियोजनाच्या माध्यमातून अर्थव्यवस्थेच्या विविध क्षेत्रांचा विकास घडवून आणण्याचा प्रयत्न केला. १९६५ नंतर भारतामध्ये हरीत क्रांती झाली. त्यामुळे शेतीचे उत्पादन वाढले. नियोजन कालखंडात केंद्र सरकारने तसेच महाराष्ट्र शासनाने देशातील शेती व्यवसायात काम करणाऱ्या महिला शेतमजुरांच्या स्थितीत सुधारणा करण्यासाठी विविध कायदे केले, विविध कल्याणकारी योजना आखल्या, विविध चौकशीसमीत्या व आयोगाची स्थापना करून या वर्गाच्या स्थितीचा आढावा घेतला व शेतमजुरांच्या दर्जात सुधारणा करण्यासाठी उपाययोजना सुचविल्या आहेत. शासनाच्या विविध योजनांचा सांगली जिल्ह्यातील शेतमजुरांवर अनुकूल परिणाम होणे अपेक्षित आहे. जिल्हा प्रशासनाने शेतमजुरांच्या स्थितीचा आढावा घेवून त्यांच्या स्थितीत सुधारणा होण्यासाठी विविध योजना राबविल्या आहेत. या योजनांचा महिला शेतमजुरांवर अनुकूल परिणाम झाला आहे का ? योजनांचा लाभ महिला शेतमजुरांनी घेतला आहे का ? महिला शेतमजुरांना कायम स्वरूपी रोजगार मिळते का ? महिला शेतमजुरांना किती रोजगार मिळतो ? महिला शेतमजुरीचे दर किती आहेत ?, महिला शेतमजुरांच्या संख्येत वाढ झाली आहे का ? त्यांचे उत्पन्न वाढले आहे का ? महिला शेतमजुरांच्या राहणीमानात वाढ झाली आहे. का ?, महिला शेतमजुरांचा कर्जबाजारीपणा वाढला आहे का ? शेतमजुरांची आर्थिक व सामाजिक स्थिती सुधारली आहे का ? या सर्व बाबींचा अभ्यास करणे

संशोधनाचे महत्त्व —

सांगली जिल्ह्यातील महिलांच्या आर्थिक स्थितीचा दर्जा या प्रस्तुत संशोधन कार्याचे महत्त्व हे महिला हि समाजाच्या एक मुख्य घटक आहे. ती समाजाची जननी आहे. त्यामुळे महिला रोजगार, उत्पन्न शिक्षण, कर्ज,

सहभाग दर, कामाचे स्वरूप, त्यानची आर्थिक, सामाजिक स्थिती वेतन दर व राहणीमान यात जालेला बंधल यांचा एकत्रित अभ्यास करण्यात येणार आहे. त्यामुळे जिल्हा प्रशासन, जनतेस विविध संस्थास व शासन धोरण ठरवण्यासाठी संपूर्ण माहिती उपयोगी पडेल. यासाठी प्रस्तुत विषयाचा अभ्यास करणे महत्वाचा आहे.

संशोधनाच्या मर्यादा -

प्रस्तुत संशोधन हे माहितीचे संकलन, नमुना निवड पद्धतीने, प्रश्नावलीद्वारे किंवा मुलाखत, अनुसूचीद्वारे आधारित आहे. प्रस्तुत संशोधन हा केंद्र बिंदू असून निरक्षर महिलांच्या — बाबत लाजाळूपणा व गोपनीयता यासारख्या वृत्तीमुळे माहिती संकलनावर मर्यादा पडू शकतात. प्रस्तुत संशोधनातील निष्कर्ष सांगली जिल्ह्यापुरते मर्यादित असतील.

संदर्भ सूची —

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दुग्ध व्यवसाय: शेतीसाठी एक पुरक जोडधंदा

संशोधक विद्यार्थी
मलकापुरे सुदर्शन मधुकर
स्वा.रा.ति.म.वि.नांदेड

गोषवारा:—

एक शेतकरी म्हणून जर विचार केला तर सततची येणारी नैसर्गिक संकटे जसे, की भुकंप, पुर, वादळे, ओला व कोरडा दुष्काळ, गारपीट इत्यादीपासून शेतकऱ्यांचा बचाव व्हावा म्हणून व त्याचबरोबर अशाप्रकारच्या अडचणींवर मात करता यावी म्हणून प्रत्येक शेतकऱ्याने दुग्ध व्यवसायासारखाच एखादा तरी शेतीसाठी पुरक जोडधंदा केला पाहिजे. कारण दुध व दुग्धजन्य पदार्थांचे महत्व समस्त जगतास कळालेले आहे. त्याचबरोबर दुग्ध व्यवसाय करणे हे दुष्काळी भागातील शेतकऱ्यांना सुद्धा परवडणारे आहे. म्हणून इतर शेतीपुरक व्यवसायांपेक्षाही दुग्धव्यवसायाला प्राधान्य देणे योग्य ठरेल.

प्रस्तावना:—

दुग्ध व्यवसाय हा जरी शेतीसाठी पुरक जोडधंदा म्हणून ओळखला जात असला तरी सद्यस्थितीत दुग्ध व्यवसायाचे महत्व लोकांना कळालेले आहे. त्याचबरोबर दुध व दुग्धजन्य पदार्थांच्या सेवनाने आपल्या शरीराला होणारे संपूर्ण फायदे माणवाला कळालेले आहेत. त्यामुळे दुग्धव्यवसायाची दिवसेंदिवस प्रगती झालेली आपणास जाणवते.

शेतीला जोडधंदा म्हणून दुग्ध व्यवसाय केल्यामुळे निश्चीतच शेतकऱ्यांच्या आर्थिक उत्पन्नात वाढ होते. त्यामुळे त्यांचे राहणीमान सुधारण्यास मदत होते. त्याचबरोबर गायी, म्हशींचा दुग्ध व्यवसायासाठी शेतकरी सांभाळ करीत असल्यामुळे त्यांच्यापासून मिळणारे मलमुत्र यांचा वापर शेणखत म्हणून शेतीसाठी केल्यामुळे एकुणच त्या शेतकऱ्यांच्या

शेतीउत्पन्नातसुद्धा वाढ झालेली आढळून येते.

दुधाळ गायी, म्हशींची निवड:—

रवंथ करण्यासाठी जबड्याची हालचाल प्रती मिनीट जास्त असावी.

१. मध्यत किंवा लहान ठेवणीची गाय असावी.
२. स्वच्छ विस्फारलेले पाणीदार डोळे असावेत.
३. पातळ व चमकदार त्याचबरोबर निरोगी कातडी असावी.
४. सडातील अंतर, लांबी, ठेवण समसमान असावी.
५. पाठ सरळ, कमरेची हाडे दूर दूर असावीत.
६. नाकपुड्या मोठ्या, चवड्या असाव्यात.
७. कासेवरील शिरा जाड, मोठ्या असाव्यात.
८. गाय जास्त लहू नको. लहूपणामुळे व्याल्यानंतरचे आजार लवकर होतात. गाभण राहाण्यास सुद्धा उशीर लागतो.
९. शक्यतोवर व्यालेल्या गायी विकत घ्याव्यात, कारण दुध उत्पादन प्रत्यक्ष मोजुन पाहता येते.
१०. संकरीत गाय २-३ वेताची घ्यावी, कारण जास्त वेताची गाय घेतली तर तिची दुध देण्याची क्षमता हळूहळू कमी होत जाते.
११. दातांच्या संख्येवरून वय ओळखता येते.

१२. दुधाचे २ दात जन्मता.
४ दात — १५ ते २१ दिवस.
८ दात — २१ ते ३५ दिवस.
२ कायमचे दात — २ ते २.५ वर्षे
४ कायमचे दात — ३ ते ३.५ वर्षे
६ कायमचे दात — ४ ते ५ वर्षे
८ कायमचे दात — ५ वर्षापासून पुढे

म्हैस खरेदी करण्यापूर्वी खालील बाबी लक्षात घ्याव्यात :-

१. जातीवंत म्हशी घ्याव्यात. जसे, मुन्हा, महिसाणा, जाफराबादी, निलीरावी, सुरती, पंढरपुरी.
२. शक्यतो दुसऱ्या वेतातील घ्यावी.
३. पाचरासारखी, मागील पाय पुढील पायापेक्षा चपटे व पातळ असावेत.
४. कातडी मऊ, नरम व तजेलदार असावी.
५. कास मोठी, मऊ असावी.
६. म्हैस चंचल, चाणाक्ष असावी पण मारकी नको.
७. डोळे पाणीदार, कान लांबसडक असावेत व स्वभाव शांत असावा.

गोठा व्यवस्थापन :-

दुधाळ जनावरांच्या गोठ्यासाठी जागेची निवड करित असताना पुढील गोष्टींचा विचार करावा. गोठ्याची जागा शक्यतो निवांत ठिकाणी, शहरापासून काही अंतरावर किंवा वर्दळीपासून दूर असावी. गोठ्याची जागा सपाट परंतु थोडी उंचावर असावी. जमीन शक्यतो हलकी, मुरमाड व पाण्याचा निचरा होणारी असावी. ज्यामुळे गुरांना काही काळ मोकळे सोडता येईल. आजूबाजूस पाणथळीची किंवा दलदलीची जमीन असू नये. मुबलक व स्वच्छ पाणी पुरवठा असावा.

गोठ्यात जनावरे बांधण्याच्या दोन पद्धती आहेत.

१. डोक्याकडे डोके पद्धत :- या पद्धतीत एक सामायिक असते म्हणजे जनावरांची तोंडे समोरासमोर असतात. यात कमी जागेत अधिक जनावरे बांधता येतात. चारा टाकण्यास कमी वेळ लागतो. गटारीवर ऊन पडल्यामुळे त्या कोरड्या राहातात तसेच पाहणाऱ्यास सुलभ दिसते, परंतु यात जनावरांची तोंडे समोरासमोर असल्यामुळे सांसर्गिक रोग लवकर पसरण्याची शक्यता असते.

२. शेपटीकडे शेपटी पद्धत :- या पद्धतीत दोन वेगवेगळ्या गव्हाणी असतात. जनावरांची तोंडे विरुद्ध दिशेने असल्यामुळे संसर्गजन्य रोग पसरण्याची शक्यता कमी असते. गोठा स्वच्छ करण्यास कमी वेळ लागतो. मात्र चारा टाकण्यासाठी अधिक वेळ लागतो. शिवाय या पद्धतीत जागा अधिक लागते.

गोठ्याच्या प्रवेशद्वारापाशी २ बाय १.५ फूटाची पायधूणी असावी. त्यात धुण्याचा सोडा, फिनाईल, पोटॅशियम परमँगनेट सारखी जंतुनाशक औषधी टाकावी. त्यामुळे बाहेरून आलेली जनावरे फुटबाथमध्ये पाय धुवून गोठ्यात प्रवेश करतील. काही वेळा जनावरांना लाळया खुरकत नावाच्या रोगाची लागण होते. अशा वेळी प्रत्येक गुरांना औषधी लावून धुण्यापेक्षा त्यांना पायधुनीत नेले तर जनावरांच्या पायातील जखमांना औषधी लागून त्या लवकर बऱ्या होण्यास मदत होईल.

गोठ्याच्या बाजूचा परिसर स्वच्छ ठेवावा. मलमुत्रांचा खड्डा गोठ्यापासून

१०० ते १५० फूट दूर असावा. अति वाऱ्यापासून जनावरांचे संरक्षण व्हावे व परिसर थंड रहावा म्हणून गोठ्याच्या पश्चिमेस १५० ते २०० फूट अंतरावर उंच व दाट वाढणाऱ्या झाडांची लागवड करावी. तसेच मोकळ्या जागेत कडूनिंब, आंबा सारखी डेरेदार झाडे लावली तर जनावरांना सावलीची सोय होते. गोठ्याच्या जवळच जनावरांच्या संख्येनुसार पाण्याचा हौद असावा ज्यात दररोज स्वच्छ व ताजे पाणी सोडावे. त्याचप्रमाणे गोठ्याजवळ चारा व पशुखाद्य साठवणूकीसाठी खोली असावी. या व्यतिरिक्त आणखी एक खोली असावी. ज्यात दूध काढण्याची भांडी, औषधी, नोंदवहया व आवश्यक ती हत्यारे ठेवता येतील. आजारी जनावरांसाठी व वळूसाठी वेगळी जागा ठेवावी. गोठ्याच्या जवळच हिरवा चारा उत्पादनासाठी जमीन असेल तर अतिशय उत्तम राहील.

जनावरांचा विमा :-

दुग्ध व्यवसाय चालू असताना जर गाई किंवा म्हशींमध्ये मृत्यू ओढवला किंवा कायमस्वरूपी शारीरिक व्यंग आले, तर उत्पादन क्षमतेवर विपरीत परिणाम होतो. व्यवसायातील जोखीम टाळण्याच्या दृष्टीने पशुविमा आवश्यक व उपयुक्त असतो. भारतीय जनरल इन्शुरन्स कंपनी अंतर्गत कार्यरत खालील संस्था पशुविमा करतात.

१. युनायटेड इंडिया इन्शुरन्स कंपनी.
२. न्यु इंडिया अॅश्युरन्स कंपनी.
३. टोरिएन्टल इन्शुरन्स कंपनी.
४. नॅशनल इन्शुरन्स कंपनी.

जनावरांना देण्यात येणारा चारा व खाद्य :-

१. जनावरांपासून मिळणारे शेण गोमुत्र यांचा वापर करून उगविण्यात आलेला

सेंद्रिय चारा दिला जातो. उदा. जयवंत घास, मका, दादर, ज्वारी, बाजरी.

२. दूधातील प्रोटीनचे प्रमाण वाढवण्यासाठी आवश्यक असणारी सरकी, पेंढ, मका, भरडा, गूळ, हरभरा भरडा यांचे मिश्रण पुरक खाद्य म्हणून देण्यात येते.

३. मिनरल मिक्शचरची जागा ही आधुनिक पध्दतीने तयार करण्यात येणाऱ्या हायड्रोफोनिक्स तंत्रज्ञानाने तयार करण्यात आलेल्या मका चाऱ्याने घेतली आहे.

४. जनावरांच्या आरोग्याला पोषक असणाऱ्या जीवनसत्व अ, कॅल्शियम, फॉस्फरस, प्रथीने, फायबर, क्षारचा चांगला स्रोत आलेली अँझोला ही शेवाळवर्गीय वनस्पती योग्य प्रमाणात दिली जाते.

हायड्रोपोनिक मका चारा व अँझोला वनस्पतीचे फायदे :-

१. हायड्रोफोनिक्स मक्यामुळे प्रथीने व एन्झाइम्सचे प्रमाण वाढते.
२. जनावरांचे शरीर सुदृढ राहते. त्यामुळे जनावरे आजारी पडत नाही.
३. हायड्रोफोनिक्स चारा जनावरांना ९० टक्के पचनीय चारा आहे.
४. हायड्रोफोनिक्समुळे नियंत्रीत अन्न पुरवठा करणे शक्य होते.
५. अँझोलामध्ये जवळपास २ ते ३५ टक्के प्रथीने असतात. ३.२५ टक्के फॅटवर्गीय घटक असतात. ११.६३ टक्के फायबर असते. १२.३१ टक्के क्षार असतात.
६. एकूण फायबर व प्रोटीन यांचा विचार करता अँझोलामध्ये अमिनो आम्लचे प्रमाण जैवक्रियाशील पदार्थ जीवनसत्व

अ कॅल्शियम, फॉस्फरस इत्यादी
अन्नघटक वैरणीच्या तुलनेत चांगल्या
प्रमाणात असतात.

७. त्यामुळे जनावरांच्या आहारात अॅझोला
हे फायदेशीर ठरत आहे.

दुग्ध व्यवसाय विकास :-

दुग्ध व्यवसाय हा आपल्या देशातील
शेतकऱ्यांना करता येण्याजोगा प्रमुख
जोडधंदा असून देशातील शेतकरी प्राधान्याने
दुग्ध व्यवसायाचा जोडधंदा करतात. सर्व
साधारणपणे दुग्ध व्यवसायाद्वारे उत्पादित
होणाऱ्या दुधाची विल्हेवाट त्यांच्या गावांतील
प्राथमिक संस्थेद्वारे करण्यात येते. तथापी
काही दुग्ध उत्पादक शेतकरी अंतर्गत भागात
वास्तव्यास असल्याने तसेच त्यांच्या
गावांमध्ये दुग्ध सहकारी संस्था स्थापीत न
झाल्याने त्यांना त्यांच्या दुधाची विल्हेवाट
लावणे शक्य होत नाही व अशा प्रकारच्या
दुधाची वेळेवर विल्हेवाट न लागल्याने
नुकसान होण्याची दाट शक्यता असते. असे
नुकसान टाळण्याकरीता दुग्ध उत्पादकांना
घरच्या घरी सहजतेने दुग्धजन्य पदार्थांची
निर्मिती करून जवळच्या बाजारपेठेत विकणे
शक्य झालेले आहे.

भारतीय दुग्ध पदार्थ म्हणजे
दुधापासून तयार करण्यात येणारे पदार्थ होत.
भारतीय दुग्ध पदार्थांना मुख्यत्वे पुढीलप्रमाणे
वर्गीकृत करण्यात येते.

१. दुग्ध आटवून तयार केलेले पदार्थ :-

दुधाला उष्णता देवून बाष्पीभवनाच्या
मदतीने त्यातील पाणी कमी केले
जाते. या तत्वावर हे पदार्थ तयार
करण्यात येतात. उदा. खवा, बासुंदी,
रबडी, खीर, दुधपावडर इत्यादी.

२. दुग्ध फुटवून तयार केलेले पदार्थ :-
दुग्ध आम्लाच्या मदतीने फुटवून

त्यातील पाण्याचा अंश कमी करण्यात
येतो. उदा. पनीर, कलाकंद इत्यादी.

३. दुधात विर्जन घालून उत्पादीत केलेले
पदार्थ :- दुग्ध विशिष्ट जीवाणूंच्या
मदतीने आंबवण्यात येते. उदा. दही,
चक्का, श्रीखंड इत्यादी.

४. दुग्ध गोठवून तयार केलेले पदार्थ :-
दुधातील घन घटकाचे प्रमाण वाढवून
कमी तापमानावर गोठविण्यात येते.
उदा. कुल्फी, घरगुती आईस्क्रीम
इत्यादी.

प्राचीन काळापासून भारतात दुग्ध
आटवून म्हणजे उष्णतेच्या मदतीने त्यातील
पाणी कमी करून टिकवण क्षमता वाढविली
जाते. अशा प्रकारे तयार केलेल्या पदार्थांना
आज खूप मागणी आहे. दुग्ध आटविण्याचे
प्रमाण आणि त्यात टाकले जाणारे विविध
पदार्थ आणि निर्मिती प्रक्रिया यांच्या
आधारावर विविध दुग्ध पदार्थ तयार होतात.
ते बासुंदी, खीर, खवा, पेढा, बर्फी,
कलाकंद, गुलाबजामुन, कालाजामुन, मिल्क
शेक इत्यादी आहेत.

दुधाचे महत्व :-

म्हशीच्या शुद्ध दुधाचे वैयक्तीक फायदे :-

१. म्हशीचे शुद्ध दुग्ध हे अतिशय
निरोगी अन्न आहे.

२. म्हशीचे दुग्ध हे कॅल्शियम समृद्ध
असते आणि त्यामुळे हाडांचे,
दातांचे, हृदयाचे, तसेच
रक्तवाहिन्यांचे आरोग्य सुधारते.

३. म्हशीचे दुग्ध हे मॅग्नेशियम, पोटॅश
आणि स्फुरद सारख्या खनिजांचा
चांगला स्रोत आहे.

४. आध्यात्मिक व नैसर्गीक वातावरणात
राहणाऱ्या शेण, गोमुत्र, शेणखत

टाकून उगविण्यात आलेल्या सेंद्रिय चाऱ्यावर पोषण झालेल्या म्हशींपासून रसायनमुक्त असे दुधापासून तुप, दही, ताक तयार करता येते.

भारतीय देशी गोवंश — गीर गायीच्या दूधाचे महत्व :-

१. जागतीक पातळीवर ए—२ दुधासाठी १ नंबरवर सिध्द झालेली गाय म्हणजे देशी गीर गाय होय.
२. जगातील एकमेव देशी गीर गाय जिच्या वाशींङामध्ये सूर्यकेतू नाडी अस्तित्वात आहे. सदर सूर्यकेतू नाडी हे सूर्यकिरण खेचून त्याद्वारे स्वर्णक्षार व स्वर्णतत्व तयार करून गायीच्या स्तनगृहात पोहोचवते.
३. देशी गीर गाईच्या दुधात असलेल्या स्वर्णक्षार व स्वर्णतत्वामुळे त्या दूधाला जगाने अमृताचा दर्जा दिलेला आहे.
४. जन्मजात शिशुपासून ते मरणासन्न व्यक्तीपर्यंत सर्वांना बळ, तेज, शक्ती, जीवन, आयुष्य, सुदृढ आरोग्य, ऐश्वर्य देणारे हे अलौकिक दुध आहे.
५. देशी गीर गायीचे दूध हे अतिसार, श्वासाचे, रक्ताचे, पित्ताचे आजार, बध्दकोष्ठता, क्षयरोग या सर्व आजारांवर एक अप्रतिम औषध म्हणून गणले जात आहे.
६. देशी गीर गायीचे दूध हे विशेषतः हृदयासाठी व मेंदूच्या वाढीस अत्यंत उपयोगी अशा ए—२ बिटाकेसीन प्रथिनांचा एकमेव स्रोत आहे.

७. देशी गीर गायीचे दुध ए, बी—२, बी—३, बी—१२, सी, रायबोफ्लेविन, जसद, फोलेट, फॉस्फरस इत्यादी अनेक पोषक तत्वांचा स्रोत आहे.

८. नियमितपणे देशी गीर गायीचे दूध सेवन केल्यामुळे शरीरातील उपयुक्त चरबी वाढते आणि हानिकारक चरबी कमी होते हे संशोधनाने सिध्द करण्यात आलेले आहे.

सारांश :-

दुधाचा समावेश पुर्णअन्नामध्ये केला जातो. कारण दुध व दुग्धजन्य पदार्थ आपल्या आहारात मोठ्या प्रमाणात समाविष्ट असतात. त्याचबरोबर गायीच्या दुधाला अमृताचा दर्जा दिला जातो. आणि कोणत्याही वर्गातील शेतकरी असो मोठा, मध्यम वा सिमांत म्हणजेच अल्पभुधारक त्याला त्याच्या शेतीला जोडधंदा म्हणून अशा स्वरूपाचा दुग्धव्यवसाय करता येवू शकतो. त्यामुळे शेतकऱ्यांच्या आर्थिक उत्पन्नात मोठ्या प्रमाणात वाढ होत आहे.

संदर्भ ग्रंथ :-

१. आयुष पशु वैद्यकीय संशोधन संस्था, पुणे — माहिती पत्रक
२. महाराष्ट्र पशु वैद्यकीय विभाग— माहिती पुस्तिका
३. पशुपालन मार्गदर्शिका — गोदावरी पब्लिकेशन नाशिक
४. प्रभात डेअरी — माहिती पत्रक
५. <https://www.researchgate.net>
६. www.mafsu.in

ग्रामीण क्षेत्राच्या विकासात शेतीची भूमिका - एक अध्ययन

विनोद मन्साराम बडवाईक

सहाय्यक प्राध्यापक व वाणिज्य शाखा प्रमुख

राष्ट्रपिता मा. गांधी कला, वाणिज्य व विज्ञान

महाविद्यालय, सावली जि. चंद्रपूर

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सारांश :-

शेती हा मानवी संस्कृतीचा सर्वात प्राचीन व्यवसाय आहे. अन्नधान्य, वस्त्र, इंधन आणि जनावरांसाठी चारा यासारख्या व्यक्तीच्या आवश्यक मूलभूत गरजा शेतीद्वारे पूर्ण केल्या जातात. आज ग्रामीण भागातील लोक मोठ्या प्रमाणात रोजगाराच्या शोधात शहरांकडे स्थलांतरित होतांना दिसत आहेत. तरीही जगातील एक तृतीयांश लोकसंख्येचा शेती हा महत्वाचा व्यवसाय आहे. शेती हाच त्यांचा उत्पन्नाचे आणि उपजीविकेचे महत्त्वाचा साधन आहे. जगातील एकूण गरीब लोकांपैकी जवळपास 70-80% लोक उपजीविकेसाठी शेती व्यवसायावर अवलंबून आहेत. त्यामुळे ग्रामीण क्षेत्रांच्या विकासात शेतीची भूमिका महत्त्वाची आहे. शेती हा एक असा उद्योग आहे ज्यामध्ये जगभरातील गरिबी आणि दुःख दूर करण्याची क्षमता आहे. जगाच्या एकूण लोकसंख्येपैकी जवळपास 45% लोक ही ग्रामीण भागात राहतात. आजही जवळपास 60% लोकसंख्या शेती आणि शेतीपूरक व्यवसायांवर अवलंबून आहेत. ग्रामीण भागातील अर्थव्यवस्था ही शेती व्यवसायावर आधारित आहे. ग्रामीण भागातील विकास मोठ्या प्रमाणात शेतीवर अवलंबून आहे, कारण शेती ही शेतकरी कष्टकरी आणि इतर गावकऱ्यांच्या उपजीविकेचे प्रमुख साधन आहे. शेती देखील मुलभूत सोयीसुविधांची उपलब्धता आणि वैज्ञानिक प्रगती यावर बऱ्याच अंशी अवलंबून असते. योग्य रस्ते, दळणवळणाच्या सोयी, वीज पुरवठा, सिंचनाच्या सोयी, आधुनिक शेती तंत्रज्ञानाच्या सोयी इ. यामुळे कृषी क्षेत्राच्या विकासाला चालना मिळेल आणि ग्रामीण भागाचा देखील विकास होईल. योग्य रस्ते आणि वीज नसल्यामुळे कृषी अर्थव्यवस्थेला फटका बसतो, त्यामुळे ग्रामीण भागाच्या सर्वांगीण विकासावर परिणाम होतो. कृषी आणि ग्रामीण विकास हे एकमेकांशी संबंधित आहेत. एकाचा विकास झाला तर तो दुसऱ्याच्या सुधारणेस साहाय्यक ठरतो.

बिजशब्द :- शेती, ग्रामीण विकास, ग्रामीण अर्थव्यवस्था, शेतीपूरक उद्योग, ग्रामीण विकासाचे घटक

प्रस्तावना :-

शेती हा एक असा उद्योग आहे ज्यामध्ये जगभरातील गरिबी आणि दुःख दूर करण्याची क्षमता आहे.

रोजगाराची निर्मिती, अन्नधान्याचे उत्पादन आणि उपजीविकेचे साधन या दृष्टीने विचार करता ग्रामीण भागाच्या विकासामध्ये शेतीची भूमिका महत्त्वपूर्ण आहे. जगातील जवळपास 60% लोकसंख्या प्रत्यक्ष शेती आणि शेतीपूरक क्षेत्रांवर अवलंबून आहे. जगातील एकूण गरीब लोकांपैकी जवळपास 70-80% लोक उपजीविकेसाठी शेती

व्यवसायावर अवलंबून आहेत. अर्थव्यवस्था मजबूत करण्यासाठी आणि गरिबी व दारिद्र्य दूर करण्यासाठी शेतीमध्ये क्षमता असूनही, ग्रामीण भागाचा सामाजिक तसेच आर्थिक विकास पाहिजे त्या प्रमाणात झालेला दिसून येत नाही. संपूर्ण लोकसंख्येला पोहणारा शेतकरी आधुनिक सोयीसुविधा पासून आजही वंचित आहेत. ते शिक्षण, आरोग्य, रोजगार आणि इतर क्षेत्रात बरेच मागे आहेत.

ग्रामीण भागातील विकास मोठ्या प्रमाणात शेतीवर अवलंबून आहे, कारण शेती ही शेतकरी कष्टकरी आणि इतर गावकऱ्यांच्या उपजीविकेचे प्रमुख साधन आहे. शेती देखील मुलभूत

सोयीसुविधांची उपलब्धता आणि वैज्ञानिक प्रगती यावर बऱ्याच अंशी अवलंबून असते. योग्य रस्ते, दळणवळणाच्या सोयी, वीज पुरवठा, सिंचनाच्या सोयी, आधुनिक शेती तंत्रज्ञानाच्या सोयी इ. यामुळे कृषी क्षेत्राच्या विकासाला चालना मिळेल आणि ग्रामीण भागाचा देखील विकास होईल. योग्य रस्ते आणि वीज नसल्यामुळे कृषी अर्थव्यवस्थेला फटका बसतो, त्यामुळे ग्रामीण भागाच्या सर्वांगीण विकासावर परिणाम होतो. कृषी आणि ग्रामीण विकास हे एकमेकांशी संबंधित आहेत. एकाचा विकास झाला तर तो दुसऱ्याच्या सुधारणेस साहाय्यक ठरतो.

जगाच्या लोकसंख्येपैकी जवळपास ४५% लोक ग्रामीण भागात राहतात, तसेच, जवळपास २ अब्ज लोकांचा शेती हाच उत्पन्नाचा प्राथमिक स्रोत आहे. कृषी क्षेत्रामधून जगभरातील जवळपास ८६६ दशलक्ष लोकांना रोजगार देते. त्यापैकी, अंदाजे ७५% (६५६ दशलक्ष) दक्षिण-पूर्व आशिया आणि उप-सहारा आफ्रिकेत आहेत. जगातील सुमारे ८०% अन्नधान्य एका कुटुंबाद्वारे चालवल्या जाणाऱ्या ५०० दशलक्षाहून अधिक शेतांमधून तयार केले जाते.

शेती आणि ग्रामीण विकास

जगातील तीन चतुर्थांश गरीब लोक ही ग्रामीण भागात राहतात आणि बहुतांश ते आपला उदरनिर्वाह शेती व्यवसायातून करतात. त्यामुळे दारिद्र्य निर्मूलनासाठी कृषी क्षेत्रातील उत्पादकता वाढवणे अत्यंत आवश्यक आहे. शेती आणि ग्रामीण विकास हे एकमेकांशी निगडित आहेत. शेती आणि शेतीपूरक व्यवसायामधूनच ग्रामीण भागाचा विकास होऊ शकतो. ग्रामीण भागातील संपूर्ण खेडी स्वयं-शाश्वत बनविण्याची क्षमता शेती व्यवसायात आहे. ग्रामीण भागातील लोक शेतीमधून चांगले उत्पन्न घेऊन आपला आर्थिक आणि सामाजिक स्तर उंचावण्यासाठी सतत प्रयत्नशील असतात. अर्थव्यवस्था मजबूत करण्यासाठी आणि गरिबी व दारिद्र्य दूर करण्यासाठी शेतीमध्ये क्षमता असूनही,

ग्रामीण भागाचा सामाजिक तसेच आर्थिक विकास पाहिजे त्या प्रमाणात झालेला दिसून येत नाही. संपूर्ण लोकसंख्येला पोहणारा शेतकरी आधुनिक सोयीसुविधा पासून आजही वंचित आहेत. ते शिक्षण, आरोग्य, रोजगार आणि इतर क्षेत्रात बरेच मागे आहेत. ग्रामीण भागात रोजगार निर्मिती करणारे कृषी क्षेत्र हे सर्वात मोठे क्षेत्र आहे. यामधून रोजंदारी मजुरांना शेतात तसेच इतर शेतीपूरक उद्योगांमध्ये कुशल व अकुशल कामगारांना रोजगार उपलब्ध होतो..

ग्रामीण अर्थव्यवस्था

ग्रामीण भागातील अर्थव्यवस्था सुधारण्यात कृषी क्षेत्राचे योगदान महत्त्वाचे आहे. शेती हा अनेक जागतिक अर्थव्यवस्थांचा, विशेषतः विकसनशील देशांच्या अर्थव्यवस्थेचा एक अविभाज्य भाग आहे आणि म्हणूनच ग्रामीण विकासात शेती महत्त्वाची भूमिका बजावते. शेती व्यवसायामुळे रोजगाराच्या नवनवीन संधी उपलब्ध होतात, त्यामुळे गरिबीचे निर्मूलन करण्यास आणि ग्रामीण समाज सुधारून गावांना स्वावलंबी बनविण्यासाठी शेतीची मदत होते. ग्रामीण भागाचा आर्थिक विकास हा प्रामुख्याने त्या विशिष्ट क्षेत्रातील शेतीच्या स्थितीवर अवलंबून असतो. शेतीच्या उत्पादनात घट झाल्यास त्याचा विपरीत परिणाम अर्थव्यवस्थेवर होतो. तसेच, रोजगार निर्मितीसाठी शेती आणि शेतीपूरक क्षेत्रांवर ग्रामीण क्षेत्र अधिक अवलंबून असणे हे ग्रामीण अर्थव्यवस्थेपुढील एक मोठे आव्हान आहे. शेती ही स्वावलंबी असली तरी दुष्काळ, पूर, वादळ आणि प्रदूषण या नैसर्गिक आपत्तींपासून ती असुरक्षित आहे. एखाद्या वर्षी अनपेक्षितपणे कमी पाऊस पडला किंवा दुष्काळामुळे ग्रामीण भागातील संपूर्ण अर्थव्यवस्था धोक्यात येऊ शकते. त्यामुळे इतर शेतीपूरक व्यवसाय जसे- शेळीपालन, कुक्कुटपालन, मत्स्यपालन, मधमाशी पालन इत्यादी क्षेत्राची जोड देऊन ग्रामीण अर्थव्यवस्था शेतीपासून अधिक स्वतंत्र करणे हे देखील एक आव्हान आहे.

शेतीपूरक उद्योग

निसर्गाचे अवकृपेने कींवा इतर कोणत्याही कारणांमुळे (जसे- पिकांवरील रोग, शेतमालाचा वन्य प्राण्यांद्वारे केलेली नासधूस) कोरडवाहू तसेच सिंचनाच्या सोयी असणाऱ्या शेतीमधून मिळणाऱ्या उत्पन्नाची शाश्वती नसल्यामुळे, शेतकऱ्यांना पर्यायी उत्पन्नाचे साधन म्हणून, करणे शक्य असणाऱ्या व्यवसायांना शेतीपूरक व्यवसाय असे म्हणतात. शेती आणि शेतीपूरक उद्योगांच्या माध्यमातून ग्रामीण क्षेत्राचा सर्वांगीण विकास साधता येतो. शेतीमध्ये होणारी हानी भरून काढण्यासाठी शेतीपूरक उद्योग सहाय्यक ठरतात. शेळीपालन, दुग्ध व्यवसाय, कुक्कुटपालन, मधमाशी पालन, मशरूम उद्योग, रेशीम उद्योग, कृषी पर्यटन, चारा निर्मिती, फळप्रक्रिया इ. उद्योगांचा समावेश शेतीपूरक उद्योगांमध्ये होतो. अशा प्रकारचे शेतीपूरक व्यवसाय सुरू करून शेतकरी आपल्या उत्पन्नात भर पाडू शकतो.

ग्रामीण विकासाचे घटक

ग्रामीण क्षेत्राचा सामाजिक, आर्थिक आणि सर्वांगीण विकास हा शेती व्यवसाय, उत्तम नियोजन तसेच रोजगार निर्मिती इ. अनेक घटकांवर अवलंबून असतो. ग्रामीण विकासाच्या काही प्रमुख घटक पुढीलप्रमाणे आहेत-

अ) रोजगार निर्मिती

रोजगार निर्मिती करणे हा ग्रामीण विकासाचा मुख्य घटक आहे. ग्रामीण भागात कृषिक्षेत्र हे सर्वाधिक रोजगार देणारे एक महत्त्वाचे क्षेत्र आहे. त्यामुळे ग्रामीण भागातील गावांमध्ये रोजगाराच्या संधी निर्माण करण्यासाठी कृषी क्षेत्राला अधिक मजबूत करण्याची आणि इतर उद्योगधंदे उभारण्याची अत्यंत आवश्यकता आहे.

ब) उत्तम नियोजन

एखाद्या गावाच्या विकासाला पोषक असे विकास मॉडेल वापरून स्थानिक अर्थव्यवस्थेला चालना देण्यासाठी सरकारने चांगले नियोजन केले

पाहिजे. गावाची अर्थव्यवस्था मोठ्या प्रमाणात शेतीवर अवलंबून असते आणि म्हणून नंतरच्या काळात केलेला कोणताही सकारात्मक बदल आपोआप पूर्वीच्या परिस्थितीत सुधारणा करतात.

क) उत्तम रस्ते

उत्तम रस्ते जोडणी हे ग्रामीण विकासाचे प्रमुख लक्षण आहे जे कृषी क्षेत्रामध्ये देखील सुधारणा करते. चांगले रस्ते आणि शहरी व्यापार केंद्रांना जोडणे म्हणजे शेतमालाचे उत्पादन लवकर बाजारात पोहोचते आणि चांगली किंमत मिळते, त्यामुळे कृषी अर्थव्यवस्थेलाही मदत होते.

ड) आधुनिक तंत्रज्ञान

शेती आणि शेतीपूरक उद्योगांमध्ये आधुनिक तंत्रज्ञानाचा अवलंब केल्यास ग्रामीण क्षेत्राचा सर्वांगीण विकास घडून येईल. शेतीमधून चांगले उत्पादन घेण्यासाठी अनुकूल सुधारित बियाणे आणि सेंद्रिय खतांचा योग्य वापर केल्यास ग्रामीण भागाचा सर्वांगीण विकास होईल.

इ) मूलभूत सुविधा

पाणी, वीज, दळणवळण, पक्के रस्ते यासारख्या मूलभूत सुविधांची उपलब्धता करणे हा देखील ग्रामीण विकासाचा एक प्रमुख घटक आहे. नैसर्गिक पाऊस कमी असतानाही शेत कोरडे पडणार नाही याची यांची व्यवस्था करणे, पीक उत्पादनातही सुधारणा करणे. तसेच स्वस्त दरात शेतीसाठी सतत वीज पुरवठा उपलब्ध करून देणे फायदेशीर आहे.

निष्कर्ष :-

ग्रामीण भागातील अर्थव्यवस्था सुधारण्यात कृषी क्षेत्राचे योगदान महत्त्वाचे आहे. शेती आणि ग्रामीण विकास हे दोन भिन्न पैलू आहेत, तरीदेखील ते एकमेकांशी संबंधित आहेत. ग्रामीण अर्थव्यवस्था टिकवून ठेवण्यासाठी आणि तिची सामाजिक रचना मजबूत करण्यासाठी, दारिद्र्य कमी करण्यात शेतीची भूमिका महत्त्वाची आहे; दुसरीकडे, ग्रामीण

विकासामध्ये कृषी क्षेत्रातील विकास तसेच आरोग्य, शिक्षण, रस्ते, औद्योगिकीकरण आणि इतर क्षेत्रांचा समावेश होतो. पायाभूत सुविधांच्या विकासामुळे कृषी क्षेत्राला साहजिकच फायदा होतो. एकूणच ग्रामीण विकासामध्ये शेतीसह इतर क्षेत्रांचा विकास होतो. अर्थात ग्रामीण क्षेत्राच्या संपूर्ण विकासामध्ये शेतीची भूमिका अत्यंत महत्त्वपूर्ण आहे. शेतीच्या योग्य विकासाशिवाय ग्रामीण क्षेत्राचा विकास अशक्य आहे.

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महिला सशक्तीकरण व लोकशाही

संशोधन मार्गदर्शक

प्रा.डॉ.सुदाम वसंतराव पवार

अर्थशास्त्र विभाग प्रमुख,

सरस्वती संगीत कला महाविद्यालय, लातूर - ४१३५१२

संशोधक

कु.अलका मारुती कचरे

(एम.ए.अर्थशास्त्र सह.प्राध्यापक)

यशवंतराव चव्हाण महाविद्यालय इस्लामपूर, तालुका वाळवा जिल्हा सांगली

पिन, ४१५४०९

प्रस्तावना :

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पल्या देशातील महिलांचे सशक्तीकरण होणे गरजेचे आहे. सशक्तीकरण म्हणजे महिलांची अध्यात्मिक, राजकीय, सामाजिक शक्ती वाढवणे. आज आपल्या देशातील महिला शिक्षण, राजकारण, मिडिया, कला आणि संस्कृती, सेवा क्षेत्र, इत्यादी क्षेत्रात भाग घेतात. आज आपण पाहतो कि शिक्षणाने प्रगती होऊन राजकारणात राष्ट्रपती, पंतप्रधान, अर्थमंत्री या सारख्या मोठाल्या पदावर पोहचल्या आहे. उदा. प्रतिभाताई पाटील, इंदिरा गांधी, निर्मला सीतारामण, सुषमा स्वराज, इत्यादी महिलांनी राजकीय क्षेत्रात चांगलाच ठसा उमटवला आहे. एवढेच नव्हे तर शैक्षणिक क्षेत्रात देखील चांगली कामगिरी केली आहे. या सर्वांमार्गे जर कोणाची प्रेरणा असेल तर सावित्रीबाई फुलेंची कारण पहिल्या काळी महिलांना शिकविले जात नव्हते. चूल आणि मुल एवढेच तिचे साम्राज्य होते, परंतु आता आधुनिक युगात महिला प्रत्येक क्षेत्रात पुरुषांच्या खांद्याला खांदा लाऊन काम करत आहेत.

उद्दिष्टे :-

- 1) महिलांवर होणाऱ्या अत्याचाराचा अभ्यास करणे.
- 2) महिलांच्या प्रतिनिधित्वाचा अभ्यास करणे.
- 3) महिलांच्या सशक्तीकरणासाठी पुरुष प्रधान मानसिकता बदलणे.

संशोधन पद्धती :

प्रस्तुत संशोधन द्वितीय सामग्रीवर आधारित आहे. महिला सशक्तीकरण व लोकशाही या विषयावर संशोधन करण्यासाठी दुय्यम सामग्रीचा वापर करण्यात आलेला आहे. यात प्रामुख्याने संशोधनपर लेख, मासिके, पुस्तके शासनाद्वारे प्रकाशित विविध अहवाल व संशोधनाशी संबंधित विविध संकेत स्थळे इत्यादी मधून माहिती संकलित करण्यात आलेली आहे.

महिलांवर होणारे अत्याचार :

समाजात महिलांच्या वाट्याला बहुदा दुय्यम स्थान येते, त्यामुळे कार्यक्षमता असूनही स्वतःचा विकास चांगल्या प्रमाणात करून घेता येत नाही. यामुळे महिलांचे खच्चीकरण होते. आपण पाहतो कि, काही महिलांना घरून जाणून बुजून त्रास दिला जातो. त्यांना त्यांच्या मर्जीप्रमाणे वागणूक दिल्या जात नाही. सतत छळ केला जातो. याला जबाबदार कोण? आजही काही मुलींना उच्च शिक्षण घेण्यास बंधने आहेत म्हणून त्या उच्च शिक्षण घेऊ शकत नाही. त्यामुळे आज सरकार अर्थ संकल्पामध्ये महिलांच्या खाससुविधेसाठी प्रयत्नशील आहे. महिलांसाठी धोरणे व योजना आखणे. त्यांच्या विकासासाठी आवश्यक त्या तरतुदी करणे इत्यादी. तसेच महिलांच्या आरोग्यावर होणारे परिणाम स्वपुतेंच मर्यादित न राहता त्याचा परिणाम कुटुंब विशेषतः मुलावर आणि पर्यायाने समाजावर सुद्धा होत आसतो. त्यामुळे महिलांचे आरोग्य जपणे हा खूप महत्वाचा विषय आहे. काही ठिकाणी महिला कार्यालयात काम करत असतात, तर त्याठिकाणी त्यांना मानसिक त्रास दिला जातो. हा त्रास दिला जाऊ नये म्हणून त्यावर उपाय योजना करणे व तत्काळ अंमलबजावणी करणे गरजेचे असते. पुरुष आणि महिला समान मानून त्यांनाहि पुरुषांप्रमाणे दर्जा देण्यात यावा. पुरुषांप्रमाणे शिक्षण घेता यावे, पुरुषांप्रमाणे समाजात वावरता यावे. या सर्व दृष्टीकोनातून महिला सशक्तीकरण ही काळाची गरज आहे. आज आपण पाहतो आहे कि, जात, धर्म, वंश, सत्ता प्रदेश यामुळे हिंसा वाढती आहे, तर या हिंसेचा प्रभावी मुकाबला करण्यासाठी स्त्रियांना पाठबळ देणे तसेच या प्रकारचा त्रास होणार नाही यासाठी उपाय योजना राबून त्याची अंमल बजावणी करणे गरजेचे आहे.

महिलांचे वर्चस्व :

महाराष्ट्राच्या विकासाचा आलेख चढता आहे. आणि आलेख चढता असण्यामार्गे महिलांची भूमिका महत्वाची आहे. आज आपण पाहतो आहे कि, प्रत्येक क्षेत्रात महिला प्रगतीपथावर आहे. हि बाब निश्चितच महाराष्ट्रासाठी अभिमानाची आहे. महिलांसाठी राबवण्यात येणाऱ्या धोरणांचा हा परिणाम आहे, असे म्हणणे वावगे ठरणार नाही. परंतु असे करत आसताना आधुनिक युगातील नवीन बाबी, आव्हाने यांचा

विचार करून सुधारणा करणे खूप गरजेचे आहे. आज प्रत्येक क्षेत्रात महिला दिवंगत आहे परंतु, त्यांना त्यांच्या अधिकाराचा पूर्णपणे वापर करता येतो का? त्यांना स्वतःच्या मर्जीप्रमाणे निर्णय घेण्याची परवानगी आहे का? असे अनेक प्रश्न निर्माण होतात. परंतु आजच्या आधुनिक युगात जगताना महिलांना मोठ्या प्रमाणात शासनाकडून सुविधा मिळत आहेत. याच बळावर महिला आपले वर्चस्व निर्माण करत असून प्रगतीपथावर आहे. घटना दुरुस्ती ७३ व ७४ नुसार महिलांना स्थानिक स्वराज्य संस्थेत ३३ टक्के आरक्षण देण्यात येऊन २०११ च्या निवडणुकीत ५० टक्के आरक्षण देण्यात आले. महिला सक्षमीकरणाच्या दृष्टीकोनातून खूप महत्त्वाची गोष्ट आहे. आता क्षेत्र कोणतेही असो महिला प्रतिनिधित्व करताना दिसून येत आहे. उदा. बँकिंग, पोलीस दल, जिल्हाधिकारी, राजकीय क्षेत्र, सामाजिक क्षेत्र इत्यादि.

लोकशाही आणि महिला विकास :

व्यक्तीचे स्वातंत्र्य आणि मुलभूत हक्क यांचे रक्षण महत्त्वाच्या दृष्टीकोनातून लोकशाही व्यवस्थेतच केले जाते. याचा अर्थ देशातील सामान्यातल्या सामान्य व्यक्तीला न्याय मिळवून देण्याचे कार्य हे लोकशाही व्यवस्थेतच पार पाडले जाते. लोकशाही म्हणजे रक्तपात विरहीत मार्गांनी लोकांच्या आर्थिक आणि सामाजिक जीवनात क्रांतिकारक बदल घडवून आणणे होय. आज आपण पाहतो कि भारतात पुरुष प्रधान परीस्थिती आहे, या मुळे महिलांना पाहिजे तेवढे अधिकार नाही. म्हणून हि परिस्थिती समान करून पुरुषांप्रमाणे महिलांना निर्णय घेण्याचे अधिकार असावेत. तेव्हा महिलांचा विकास होईल. आपण म्हणतोच कि एक शिकलेली आई शंभर शिक्षकास समान आसते. आणि हे आगदी बरोबर आहे आहे, कारण कुटुंबाला योग्य दिशा देण्याचे महत्त्वाचे काम महिलाच करत आहे. महिलांच्या विकासासाठी अर्थसंकल्पात महिलाकेन्द्री धोरणे, योजना, तरतुदी करणे आवश्यक आहे. जगात जेन्डर बजेट नावाने प्रचलित असलेली हि संकल्पना महाराष्ट्र शासनास अतिशय महत्त्वाची वाटत असून त्या दिशेने पाउल उचलत आहे.

महात्मा जोतिबा फुलेंचे स्त्रिशिक्षणाचे महत्त्व :

स्त्रीयामुळे समाजाचा आणि राष्ट्राचा विकास होतो. त्यामुळेच जोतिबा म्हणतात कि, जिच्या हाती पाळण्याची दोरी, ती जगाते उद्धारी. विद्या हा राष्ट्राचा प्राण, अखंड जीवन व माणुसकीची ती ज्योत आहे. विद्या हाच सुधारणेचा पाया आहे, हाच विचार करून त्यांनी शैक्षणिक कार्याला सुरुवात केली. शैक्षणिक कार्यात त्यांनी सर्वप्रथम स्त्रियांच्या शिक्षणाला महत्त्व दिले.

थोडक्यात, महिला सक्षमीकरण घडून आणायचे असेल तर महिलांना उच्च शिक्षण देऊन पुरुषांप्रमाणे अधिकार देण्यात यावे.

संदर्भ :

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- ४) महिला व बालविकास विभाग मंत्रालय, मुंबई.
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