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A COMPARATIVE STUDY OF FINANCIAL INCLUSION AND EXCLUSION IN INDIA

Dr. Ramesha V*

ABSTRACT

Financial inclusion has become a daunting challenge as well as necessity for the developing countries. The concept is how to provide access to financial services to the people working in the organized sector with low income. In India too, several steps have been initiated by the RBI and the government to provide access of financial services to the weaker section of the society by of financial schemes. This paper highlights the progress of financial inclusion in India and analyses its status in the recent period.

KEYWORDS: *Financial Inclusion, RBI, Financial Schemes, Financial Services, Indian Economy.*

Introduction

The banking sector plays an important role in the development of Indian economy. Before the dawn on independence, the development of the banking sector was not satisfactory. In the present era, the aim of the bank is to rather than to earn profit render services to the public at large. Initially east India company established the banks namely Bank of Calcutta in 1806, Bank of Bombay in 1840, and Bank of Madras in 1843, later in 1921, these banks were amalgamated and imperial bank of India was formed. Soon after independence, the banking sector got a remarkable change. Moreover, the government was unable to control the commercial banks and divert the funds in accordance with the expectation of the government. Hence these banks were brought under the control of government during 1969. Then in this year 1980, fourteen major commercial banks were nationalized. It was a state sponsored commercial banking institutions, entrusted with the specific task of providing bank facilities to low income group of sections and enlarging the branch network. It has also been entrusted with responsibility of branch expansion in remote area, for which the bankers in the year 2005-06, appoint the Business Correspondence / Business Facilitator (BC/BF) model to serve the poor people.

The financial inclusion is vital for a country like India where a large part of the population does not have access to formal financial services from the bank in nature of savings, loans, insurance, and remittance facilities and so on. So, our government appoint a committee under the chairmanship of Dr. Rangarajan. He pointed out that financial inclusion is the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as the weaker sections and low income groups at an affordable cost.

Financial inclusion in simple words- converting unbanked people into banked people by educating and convincing to open savings bank account. Raman and Atul presents financial inclusion in short as under:

NAF + Banks+ OFIs+ MFI + IT= Financial Inclusion

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Where NFA	= No Frills Account
OFIs	= Other Financial Institutions
MFIs	= Micro Financial Institutions
IT	= Information Technology

Statement of the Problem

The backbone of any economy can be evaluated by the strength and flexibility of its banking structure. Banking is the cornerstone of the overall economic growth of the country. Before liberalization, the Indian banking structure was largely controlled by the RBI and parameters like branch size and location were given paramount importance.

The Indian banking industry has come a long way from being a sluggish business institution to a highly productive and dynamic entity. This transformation has been largely brought about by the large impact of liberalization and economic reforms that allowed banks to explore new business opportunities rather than generating revenue from conventional streams.

Objectives of the Study

- To analyze the progress of financial inclusion across different areas.
- To analyze the reasons for financial exclusion.
- To study the RBI measures for financial inclusion.

Financial Exclusion and Inclusion

- **Financial exclusion** means the inability of individuals to access financial services where they are forced to fall into the debt trap of informal sources. The reason for financial exclusion are low income, low savings, financial illiteracy, social exclusions, unemployment or under employment, poor financial habits, financial exploitation by inorganic sources and lack of awareness.
- **Financial inclusion** is "The process of ensuring access to financial services and timely and adequate where needed by vulnerable groups such as the weaker section and low income groups at an affordable cost." It emphasizes on conversion of unbanked areas into banked ones.

Financial Inclusion Measures taken by the RBI and the GOI

The GOI and The banking regulator RBI always attempt to inculcate banking activities among people. These activities include creation of SBI in 1955, nationalization of commercial banks in 1969, initiating the Lead Banking Scheme in 1970, establishing RRBs in 1975, introducing SHGs and formulating the Kisan Credit Card Scheme in 2001 etc. the other measures taken to build a financial inclusion are,

- **No Frills Accounts**

In November 2005 the RBI gave instructions to banks to open no frills accounts with minimum balances. Know Your Customer (KNY) practice was introduced and procedures are so simplified. Ration cards and voter IDs were accepted as KYC norms.

- **Credit Cards**

The RBI on August 11, 2010 given instructions to banks directing them to provide credit cards to FD account holders letting them to spend the amount equal to the FD amount. Early banks were issuing cards to customers whose monthly income is more than Rs. 30,000 with a sound financial condition.

- **Bank LED Mobile Service**

The RBI understood that bank led mobile service can promote financial inclusion. This is expressed by the Governor, Dr. D Subbaroa.

- **Road Map for Financial Inclusion**

The then union finance minister Mr. Pranab Mukharjee on 10th July 2010 asked the public sector banks to prepare a roadmap for bringing people living in villages under the ambit of banking system. He added that "We have 87000 nationalized bank branches today. In the next 8-10 years this number will be increased to 1 or 1.5 lakh.

- **Interest Rates**

The RBI periodically checking the bank rates on deposits and lending rates. As a measures to include even senior citizens in banking activities all banks give 0.5% extra interest to them.

- **Attractive Bank Accounts**

Recently the Vijaya Bank has introduced a student oriented bank account for just Rs. 10 as opening and minimum balances. It lets many benefits to students which include no commission charges on cheque collection and DD. It also provides students education for higher education. Similarly another public sector giant bank called SBI provides very recently just One rupee savings bank account to urban poor people.

- **Business Correspondents**

Business correspondents are people usually small businessmen or individuals appointed in unbanked areas to provide basic financial services on behalf of the bank. In 2006, RBI permitted banks to use the services of NGOs, MFIs, retired bank employees as BCs in providing banking services.

- **Karnataka Bank Product for Women**

Karnataka bank ltd has launched a new SB A/c exclusively for women. KBL's Vanitha is aimed at encouraging savings habit among women and also to allay the fear of managing their wealth. The product can be opened even with 'zero' initial deposits. Though there is no requirement of daily min bal, the ac holder should maintain monthly average bal of Rs. 1000. 'KBL Vanitha' gives free 'all risk' cover for jewellery- covering loss due to snatching while on travel, theft while during hotel stay, or burglary while at home- for Rs 50000. This product offer free fund transfer upto Rs 50000 a month to two savings accounts in the name of children.

- **Simpler KYC Norms**

In order to ensure that people belonging to the low income groups, both in urban and rural areas, do not encounter difficulties in opening bank accounts. The KYC procedure for opening bank accounts was simplified.

- **Use of Information Technology**

Banks have been urged to scale up IT initiatives for financial inclusion speedily while ensuring that solutions are highly secure, amenable to audit and follow widely accepted open standards to ensure eventual inter-operability among the different systems.

- **Expansion of banks in the North-East**

To improve banking penetration in the North-East, the RBI asked the state government and banks to identify centers where there is need for setting up either full pledged branches or those offering forex facilities. On 30.03.2013, Canara bank has opened 10 branches in North-Eastern states in the process of financial inclusion.

- **Others**

People are provided with credit counseling and financial education. A multilingual website in 13 languages was launched by the RBI on June 18, 2007. IRDA the insurance regulator take encouraging procedures to promote insurance activities.

Critical Analysis

- MFIs charge a relatively higher rate of interest because of higher transaction costs on an average loan size. There is no floor limit for charging the rate of interest.
- The penetration of the nationalized and public sector banks in the semi regions has been improving. However, the private banks are not much interested in rural areas due to profit result.
- In spite of all the measures taken by the government, marginal farmers, landless labor, self employed, unemployed, urban slum dwellers, women and senior citizens are financially excluded.
- Opening a branch in every village and town in the rural areas requires huge infrastructure costs and banks may not be in position to afford these costs.

Conclusion

The Indian economy is showing an upward trend. For accelerating the economic growth rate, investment and savings are two pillars. Increasing credit requirements have emphasized more on mobilization of deposits. But inculcation of financial habit among households is to be the utmost priority. Therefore, to bring in more households into the banking ambit, innovation of products and process must be ensured world wide. The MFIs and SHGs have to accelerate their penetration rate in India on an equitable basis. The banks must analyze the benefits of financial inclusion, and must work on the attitudes of bank employees and public to eliminate financial discrimination and financial illiteracy. Government in association with the RBI and commercial banks must actively participate in promoting financial inclusion.

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IMPACT OF COMMUNICATION ON DEVELOPMENT OF RURAL ECONOMY

Dr. Renu Nainawat*

ABSTRACT

The studies in the area of structural transformation in India are mostly macro level studies. The studies on occupational diversification as an important form of rural structural transformation in India have attempted to explain the inter-temporal and inter-regional variation in the occupational diversification in the Indian context. The theoretical framework used in many of these studies is build up with the assumption of homogenous institutional set-up of the economy. And because of this assumption, all these studies use similar variables to understand the structural transformation for a different economy. But the institutional set up varies from one economy to another, and within an economy also there is a temporal and spatial variation. So, the macro level studies fail to capture and explain the real nature of occupational diversification. The possibility of heterogeneity among the economy at the disaggregated level necessitates a primary survey before generalizing the nature of occupational diversification. The studies on crop diversification also face similar criticism. The macro level studies have tried to identify the nature of diversification. Diversification could be growth induced or distress driven, and these two forms of diversification have a different implication for the long run sustainable growth and development of an economy. So, it is important to understand who are moving from agriculture to non-agriculture and traditional food crops to commercial crops cultivation. The present study attempts to identify who are diversifying and the factors responsible for the diversification of each category.

KEYWORDS: Occupational, Regional, Diversification, Assumption, Economy, Disaggregate.

Introduction

The purpose of this letter is to investigate the level of communication contributed to rural development in India. Another reason is to investigate the success and failure of various means of communication in the journey of rural development where many rural life quality are fighting and are stressed. In this article, we will analyze some communication projects that are for rural development. Apart from this, we will also discuss the effects of media after the liberalization of media for rural and urban development. This paper will detect the history of print and electronic media for rural development. Initially, it defines the type of different activities by government and non-governmental organizations, which are used as a part of development practice. It also examines some issues that have influenced the implementation of rural development programs and have argued that some of the mass media implementation of the media can remove some flaws. Analysis will also focus on the positive effects of media privatization on urban development and how it changed public and private broadcasts in the favor of entertainment and consumerism. Apart from this, it will also examine various communication policies, which are practically in favor of rural development but urban prosperity. The research is qualitative.

Rural Development and its Role to Education

Development is neither simple nor the direct linear process. This is a multi-functional practice that tries to change the society by addressing the aspects of the strikes, alive emotions, allegedly, which are part of a biological whole. Even today there is no clear definition of rural development because there has been many changes so far. Therefore, universally approved universal definition for rural development is not universal definition. Rural development is defined in general terms as an institution or an enhancing force,

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for an improvement of development and improvement in the lives of rural people by academics, politicians and UN organizations. Development, as a practice, to exploit, abuse, abuse, to empower the economic weak classes of society and reducing domination by social, economic and political power. The meaning of development is the same distribution of resources for all, even better health care facilities and education. There is a major factor and rural development of communication power. Communication includes print media, electronic media, advertising, new media (IT), traditional and mass media. Different forms of mass media have dominated rural development and the motivational role has been the most effective in the country's democratic political structure. Motivational communication has been identified as the most effective and efficient way of communication to bring social, practical and social changes necessary by the weak rural population. For the purposes of communication development, refers to the use of different types of mass media equipment to spread information and knowledge between people. Technical changes have become direction and compressed by rural development. Community and development workers have considered panacea of various forms of communication for other problems that interrupt the development process. These media equipment are used to encourage and facilitate people's participation and contribution in development activities, Educational, researcher etc. Words "Development Communications", which can be divided into two different words communication and 'development' Here the development of the development is the change for the betterment of the society, which can be both economic and social, while refining the various media devices used in terms of communication development. Therefore, the use of communication can be called to promote development communication. Rural development means the entire rug of rural areas, economic, cultural, political and socially so that people can enjoy happy life. Rural development target is social and economic development, which has been emphasized on the creation of the same as well as the same delivery. Any development that does not happen to the public and not to the public can not be appropriate. Therefore, development policies and programs should be targeted that the rural people and region are targeted towards the overall development of the target population. One side is the spread of general awareness and education and through the network, revolutionary and revolutionary changes have been made the media the most important medium of public education and mobilization in the contemporary world. The media is considered to be the most effective and impressive medium, which affects all activities of our lives – professional, personal and social.

The Secondary Education and its Implication on Rural Development

Development is a multi-dimensional approach. Therefore, it cannot interpret in a definition. But here it can be simply defined that „development is the qualitative and quantitative increase of social, economic, political and cultural factors in a society. Western countries later used the concept of development as a measure. Metrics can be used to measure the level and position level of each country. According to this concept of measurement, the countries of the world have been divided into many categories. Mainly the division of countries can be identified as developed countries, developing countries and undeveloped countries. Two anthropologists, Katy Gardner and David Lewis have explained this method in the 'Anthropology, Development and The Post Modern Challenge' book; The answer is advanced and is located in the South-definite tradition, but a state's development is progress and changes that shows that this situation can be changed only through the capitalist relations of modern technology and production. Development experts and the world's leaders believe that focusing on the category of short-development is more important. Therefore, he helped many new ways to reach under the developed countries. Generally, once the colonial counties can identify these days as an undeveloped country. A specialty of low developed countries is that geographically they have more rural areas than urban areas. Therefore, it is important to develop other areas of the country along with the rural area. Meanwhile, the concept of rural development came in the discussion. From 1967, the rural development approach was being implemented. When we talk about rural development programs, we specially talk about agricultural development. In addition, literacy development has been focused on development, rural expansion and other social and economic conditions. Accordingly, rural development programs are committed to the development of rural areas and development of villages, later large funds are spent on rural development projects by governments and institutions. However, they failed to get long-term results. It can be believed that they failed due to the lack of indigenous knowledge expertise in rural areas, which are unique to those areas, in view of which the maintenance of the rural community in the later rural programs had to be achieved. Therefore, it is important that the development program reaches the regional level. Communication is an instrument that can be used in development programs to reach rural areas.

Accordingly, studying the subject of communication in development is at times. Any message is called a communication from one person to another person. Language can be used to communicate in many ways, including signal, symbols, colours and gestures. As the nature of communication is expanded, various media patterns are used to do this. There are some media approaches used for new media, social media, electronic media and traditional media communications. Especially when Sri Lanka comes to the society, then the rural area in Sri Lanka is more. Therefore, the development programs that lead to Sri Lanka a developed country need to focus on rural development. Therefore, to achieve traditional knowledge and knowledge in the field of essential programming for rural development programs, rural people should be mobilized for development programs. Therefore, communication is necessary. To start the development program, to discuss the content of the program, to get their views on the development program, communication is necessary to get the knowledge of villagers about the region related to the region. Apart from this, in the communication process with rural people, the use of communication is advised to be closer to the rural community. Thus this study is about the importance of traditional communication in rural growth.

Television Mode as Mode of Communication for Rural Development

Since its establishment, as a medium of rural development, television audience has been a very important means of communication to transmitting information. It is a powerful medium with entertainment, education and unique features of audio and visual aspects for information. With the help of United Nations Educational, Scientific and Cultural Organization (UNESCO), television broadcasts were started on September 15, 1959 for rural development and development in India. Indian Space Research Organization (ISRO) has constantly developed and developed through various projects like Educational TV (ETV), The Satellite Instrument Television Experiment, 1975 (Site), Kheda Communication Project, 1975 and Country Wide Classroom (CWC). The area of education supported by the project, agriculture, health and hygiene etc., These programs helped to complete the requirement of information, training, general awareness among our country's rural people. Educational television began in 1961, successfully supports school education in science, mathematics and language teaching from the middle to secondary and receives praise and praise from UNESCO's experts and dignitaries. In October 1961, the school was highly praised and the advice of the learning process was accepted as a device because it is organized in a systematic manner which provides systematic support to India in India. It is one of the longest running programs on Indian television which is broadcasted on Doordarshan, which is aiming to provide information and news related to agriculture and farming in the rural areas of the country. Information and questions are resolved on agriculture, animal husbandry, irrigation, gardening, flower farming, beekeeper, agricultural business etc. through agriculture philosophy.

Digital India Empowering of Rural Economy

The purpose of Digital India is to empower rural entrepreneurs through India's general service centers (CRC) in India. Rural Entrepreneurs can apply for loans under the Micro Units Development and Refinance Agency (Currency) scheme to install your CSC. Under the CSC, distribution of government and private services, including financial and social aspects such as passport, Aadhaar card, digital locker and land records. Internet kiosk is another plan to promote rural entrepreneurship. In this, the rule community includes internet connection with computer, tablet, webcam, to spread information about employment, agriculture, health and hygiene, market etc. Through the digital India, there is a mobile application ArogyaSakhi for rural Indian empowerment, which inspires and supports rural people. Female Entrepreneurship can help with the help of this app, preventive health care home-home. Women collect home-by-house and collect data from health related devices and can not be easily reached by nearby doctors who help in providing treatment to the village patients. India is a country with diverse cultures. This is the place of knowledge, peace and philosophy, which is aiming to achieve the truth in knowledge, attention and other different ways. As Edward Burnet Taylor says- "Culture is a complex completeness, including the other capacity and habit of human acquires and actions as a member of knowledge, belief, art, ethics, law, practice and society. There are two main features of culture, one is that it can be learned and the second is that it can be shared. The culture is classified as classical culture which is for the elite class or it can be called the culture of special class and another that is being used by local and common people, known as folk culture. Later, this culture is avoided by the traditional traffic used by rural and less-read people. Local levels are usually under small public media, such as local riddles, local saints, local theater, murals, dance etc., as a trade media called Common Media or Community Media. Basic media is called. In such a situation it is very important that such mediums of communication should be

used which are close to the villagers so that they can win their faith. Most of the rural village leaders used to receive information from the meetings. Rural development programs can be successful by changing conditions like rumors' and informal meetings. Apart from this, rural people feel very proud of the folk tales, folk history and the public drama. Studies have confirmed that they have a sense of nationalism. Accordingly, the traditional mediums of communication, the use of public plants and folk fiction will be to increase the approach towards the development goals of rural people and to guide them towards development goals.

Conclusion

Communication is a great way to communicate the development process. Integrating traditional communication with the development process in rural areas is important. Traditional communications were born in traditional society and it was developed from indigenous knowledge. Traditional communication methods are through the medium, through which the cultural symptoms grow forward-up generation. Keeping in mind the proximity of their deepness, because they are very close to the hearts of the people, traditional communications are available to everyone and is generally enjoyed by people of various ages at very low cost. Therefore, this study is about the importance of traditional communication in rural development. According to statistical samples, 88% of rural villagers confirmed that they are in favour of traditional communication. And they consider the content of traditional communication, more familiar, clear and reliable compared to modern communication methods. Many of the on going development programs and project reports are presented on the websites related to the related ministries. There is no awareness in rural people about such reports or websites. According to the study, anyone has not visited the website about the development programs by visiting such a website. Therefore, advertising is to use rural development programs through such new media. Apart from this, to investigate the knowledge of electronic media between rural people, they have a minimum level of literacy in the use of electronic media. In such circumstances, successful results of awareness programs on development programs using new media or electronic media in rural areas cannot be obtained. Consequently, traditional communications can play an important role in increasing community partnership for rural development. As a suggestion, it is necessary to practice traditional communication methods to advertise the development concepts from the government intervention.

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PRACTICE OF ACCOUNTING CARBON CREDIT: AN INITIATIVE OF ACCOUNTING TOWARDS ENVIRONMENT

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ABSTRACT

Carbon Trading will produce great openings in Indian Market and this will surely accelerate Indian economy. However, we will find that this carbon credit has opened completely new dimensions of openings for the industries and investors. Still there's no proper account frame and guidelines for recording this profit. A number of experts agree that there's an inverse relationship between profitable development and Carbon Trading. A vast research work is demanded for the perpetration of the Carbon Credit account in India. There are numerous hindrances which hamper the use of carbon credit account in the general course of account. At professional position, introductory and conventional account practices are rehearsed but new areas of account at transnational position are still ignored. Typically, the criteria are public and transnational account norms and guidelines but there's no formal practice to put some light on this fully new form of counting known as Carbon Credit Accounting. Although numerous expert panels are formed in India to give some guidelines to understand carbon credit account, numerous efforts are being made by government to take advantage out of it, various schemes are being launched to promote carbon credit account by Indian industries, but still this isn't sufficient. Awareness of carbon account is one of the most effective styles to snare this occasion of earning redundant gains. This study has shown empirically that the services of carbon credit accountants are demanded both in private and public sector of Indian frugality. With carbon credit account, it's anticipated that Indian industries will add huge gains to their basket. This research thus seeks to explore carbon credit account ways and practices for recognising carbon trading profit in India.

KEYWORDS: Agreement, Conventional, Carbon, Accounting, Professional, Economy, Warming, Trading.

Introduction

As nations have progressed we're emitting further carbon dioxide and other feasts which redounded in warming of the globe. So countries came together and inked an agreement named the Kyoto Protocol. This Protocol gave birth to the conception of Carbon Credit and it's now turning into a product that helps people, countries, advisers, dealers, pots and indeed growers earn billions of rupees. Indian frugality is a developing frugality. While espousing the Kyoto Protocol, Indian frugality decided to concentrate on certain area. First of all study is considered on the supposition that the being carbon trading and account mechanisms isn't effective. On the other hand it has suggested that the use of the carbon credit practices is the most effective tool to combat global warming. Secondly, study is emphasized on the relinquishment of the carbon credit account practices by Indian companies. The study has revealed the critical need for creating awareness on the use of carbon credit account ways. On the base of fact revealed in the study, Indian companies have wide openings in this sector and can make huge gains thirdly; this devil of global warming has given new studies and now opening new openings for industries and turning into a product to profit people each around the world to earn billions of rupees. India and China are likely to crop as the biggest merchandisers and Europe is going to be the biggest buyers of carbon credits. To produce an awareness among the citizen on how to reduce the carbon emigration or for to save the ecological system regulation and exchange need so produce awareness about the carbon credits to the investor's fraternity. Therefore carbon credit account is fully a new dimension for the Indian companies to explore and decide benefits from it.

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What is Carbon Credit

Carbon credit account is the survival mantra for the coming generation dealing with number of ways, styles and processes to stay in the race causing environmental and climate change issues. The notion of climate keeps on varying every alternate and every minute. One of the foremost reasons for this alteration is Global Warming; it's a miracle which raises the temperature of the earth. This leads to unusual seasonal changes, sandstorms, low pressure, depression, inordinate heat pertaining illness and conditions around the globe. Long back in 1997, a protocol to United Nations Framework Convention on Climate Change (UNFCCC) was developed known as Kyoto Protocol. This protocol is a legal way that gives an effect of binding to all industrialized and developing countries to check and reduce the green house gas emigrations. To live satisfied and happy with being defended sheltered, from similar emigrations, it's our primary concern to abate some part of emigrations of carbon dioxide feasts. Carbon credit account is one such a way ahead in the field to lower the GHG emigration where the former process has to observe the principles of it. The ongoing government should have strict and hard programs, process, rules and regulations for carbon credit account to be a standard metric employed by any marketable establishment but rather not as a plutocrat charming commodity. Carbon account is a social exertion that keeps a track on the quantum of carbon dioxide coequals which won't be emitted into atmosphere as a result of altering the systems under Kyoto Protocol medium. Emission trading system is frequently called as cap and trade. The main motive of this principle is the pollution control and the fight against climate change encyclopedically. Multitudinous carbon credits are vended commercially to individual guests by different companies where the guests buy the credits from an investment fund or from an individual design. Buying and dealing the credits can also use the Carbon Trade Exchange (CTE) platform to trade. According to the present script, the conception of carbon credit is fleetly rising encyclopedically but the main problem hindering is about the account treatments on it. The first study after research that occurs about carbon credit is either it's a cost or profit. Purchase of carbon credits results with increase in cost and selling of carbon credits reduces the cost, where company is getting the profit. From the taxation eye- view, income from the trade of carbon credit should be taxable under the head of Business and Profession. In the current script, companies substantially in India has a record earnings from "other sources" which includes carbon credit trading, so the opinionnaire reviews that the carbon credit is a instrument like shares which should be named under capital gain as the taxation rate varies in the short term-long term effects. The developed economies that are formerly in the smash period of industrialization are set ready to buy these credits from developing nations who are in the industrialization phase. As a result, entirely new request has been developed for developing nations having expedients to reduce pollution and gain of impulses. The financial and material deals also came under the accession of counting treatments which has been began as a new subject of carbon credit account.

Carbon Credit the Need of Accounting

The word like carbon credit and IFRS prisoner the interest of businesses, consumers and policy maker e.g. Investors watch the carbon credit of their portfolios as an index of investment threat. Purchasing directors are curious about the carbon credit and their force chains, contemporaneously consumers are decreasingly offered carbon labelled product in developed countries. Carbon credits and IFRS have come so popular that hardly any day passes without mentioning it in any public or transnational print media. The growing concern of melting ice in polar region and adding average global temperature and its dangerous consequences has been advised by ecologist, scientist and propagated to general people through media. Different government and non-government organisations are laboriously playing part to make people realise the ruinous effect of global warming and climate change. The global climate change isn't confined to polar region but it's going to affect every organism on earth in general and particularly human being. If the negative factors which are causing these changes haven't stopped also the survival of human being will be threatened. The account procedures and guidelines in effect in EU countries are principle supported and they give for a theoretical structure for fiscal statements in place of a roster of regulations. Account procedures have to be applied in an original and dependable way. The various account ways are necessary on various operations that discharge impulses and the special trade forms of the account units. For a number of enterprises, exercising discharge impulses are fully obligatory during the manufacturing practices. As a result, they're generally accepted as means. Responsibility for the responsibility to give a particular volume of impulses at the final stage of the fulfilment phase is to be linked also. Accounting participation is an important responsibility in find out about the subjects. Until it's calculated and presented on in fiscal statements a fiscal growth which won't

frequently accept a large quantum of consideration. The companies in the advanced world are needed to meet certain carbon emigration target set by their separate government. Further, if these companies are unfit to meet the target of emigration also they've an volition of buying these carbon credits from the global request which means the request from notoriety who's successful in achieving these targets and who has a access of carbon credits. This miracle is known as carbon trading. Carbon trading is also plays a veritably important tool for the companies of the developing world as it provides financial earnings in exchange of carbon credits which help companies to buy or change their technology. Similar adaption in technology eventually helps in reducing the carbon emigration for the companies. The introductory need for carbon trading was realized when it was felt that the enterprises have been the immense and largest polluter of green house feasts which has created an issues in global warming. Numerous efforts were made at large extent by the NGOs and other affiliated institutions to bring the attention of the world towards the issue of global warming. But this issue wasn't considered veritably seriously which results in nothing important. Hence it was felt that if we attach some fiscal impulses also only the attention of the world can be made towards this issue.

Accounting Aspects of Carbon Credit

Carbon Credits are gaining instigation not only around the world but also in India. The Concept of Carbon Credits evolved as a step to alleviate the rising Global Warming on earth. The emigration of green house feasts by diligence and anthropogenic conditioning has caused irrecoverable damage to the atmosphere leading to rising global temperature, affecting human life and causing Global Warming. The Concept of Carbon Credits was thus evolved by way of an agreement by different countries of the world when they met at the third Conference of Parties to the United Nations Framework Convention on Climate Change. Carbon Credits serve the binary purpose of protection of nature and as a source of profit generation for the developing and under developed countries. The advanced countries who have ratified the Kyoto Protocol which was an outgrowth of the Third Conference of Parties of the UNFCCC have agreed to reduce their green house gas emigrations as per the individual morals set by the Kyoto Protocol. In case they fail to meet the emigration targets they can buy the redundant demand by following the inflexibility medium handed by Kyoto Protocol i.e. either copping Carbon Credits from the goods market or by investing in Clean Development Medium systems.

Carbon Credit and Present Position of India

Carbon credit is considered as a comparatively an innovative idiom both at state wise and worldwide and it has certain growth to a remarkable financial accounting aspect. Presently, India have no officially obligatory emission decrease target that came out as one of the main receivers of CDM below the Kyoto Protocol regarding creation of incomes throughout the deal of carbon credits making India as important participant in overseas on the distribution of CERs. At present, no reliable carbon credit accounting regulation form accepted by IASB or FASB. In India the ICAI provided a detailed description in 2012 which gives widespread direction on accounting for CERs. The basic aim of this study is to understand about the carbon credit and its accounting features. The research papers discuss about the accounting Norms on Carbon Credit in India. The study also tried to analyze the current carbon credit accounting practices and efforts at global level. Nowadays everyone has their consideration beyond business success and monetary strategies. They have great interest in perspectives that goes beyond national boundaries. Organisations are gradually giving high priority to eco-friendly and utilization of resources in order to conserve the current and coming generations. Moreover the need of evidences on behalf of consistency in the business activities has increased visibly. Especially in regard to environmental aspects as it plays a major role in making of decision of the business. Moreover the financial application of rights and allocation is discussed in this research analysis. It also emphasizes on the deficiency of proper research to understand the reason of accounting opinions for the execution of emission claims. Various elements such as Kyoto Protocol, GRI and Non-GRI indicators, Emission Trading Systems were found having a major role in the application of accounting in emission claims of greenhouse gas. It has been found that business organization's in countries where there is Emission Trading Systems is entitled to emission rights. Either on behalf of a setting up or by means of other activities like investment, loans or machinery. Moreover organization that provides information on atmospheric changes and gas emissions are involved in the study made by the KPMG and GRI which will consider emission rights as Research plus Development overhead or as some other sort of outlay, besides not considering them at all. Whereas organization related to the destinations that included in the Kyoto Protocol is fond of removing it from their accounts, in spite of treating it as expenditure and further no practical proofs was able to be analysed on the basis of supplementary

types of accounting application. All those outcomes outcasts a massive deviation in the accounting application of emission claims as a reason of various elements. The uneven result of the assortment on stakeholders who consider it to be a complicated way to take decisions because of the low equal data. It has also nurtured efforts at developing and recognizing a global standard for the accounting application of emission claims of greenhouse gases.

Conclusion

Carbon trading is an effective tool to earn extra benefits for developing countries and non-developed countries. Clean Development Mechanism is also an effective source of technological and economic growth and development for developing countries with environmental up gradation. For proper functioning and development of carbon markets and carbon trading practices there is separate financial accounting standard should be established. Countries are trying to find the ways to earn carbon credits for not only reducing the amount of greenhouse gasses produced but also to open up in revealing the new market. A trend toward bio fuels is one method being used to achieve carbon credits. Vehicles using bio fuels release a significantly smaller amount of CO₂ emissions than similar vehicles that burn the more common fossil fuels. Because of this the bio fuel production is a start for countries to earn more carbon credits. Usage of other renewable energy sources such as solar and wind power is also earning carbon credits for India. Moreover, India is already a robust supplier of Carbon Credits and can improve more on it. Although many expert committees are formed in India to provide some guidelines to understand carbon credit accounting, many efforts are being made by government to take advantage out of it, various schemes are being launched to promote carbon credit accounting by Indian industries, but still this is not sufficient. Awareness of carbon accounting is one of the most effective methods to grab this opportunity of earning extra profits. This study has shown empirically that the services of carbon credit accountants are needed both in private and public sector of Indian economy.

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PUBLIC ENTERPRISE CHALLENGES IN HARYANA FOR EQUAL ACCESS TO HIGH-QUALITY EDUCATION

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ABSTRACT

The public sector, which was meant to provide the means for the expansion of the rest of the economy, progressively turned out to be a net drain on society. India has to immediately fix its obviously flawed development strategy. The goal of the Indian economy's development was to create a socialistic pattern of society via economic development that emphasised self-sufficiency, social justice, and the reduction of poverty through the use of a mixed economy where the public and private sectors coexist. Success and prosperity in every nation are intrinsically related to the performance of its social, private, and public sectors, both separately and together. The study provides a background analysis that examines the difficulties of public entrepreneurship in the public education sector and explores elements of that concept that could be adopted and implemented in public sector schools and how they can change the equal opportunity for quality education in the public sector. The government is increasingly examining corporate procedures and practises to encourage innovation in the public sector in order to achieve better efficiency and improved performance. This article's goal is to look at the prevalence, difficulties, and contemporary use of public entrepreneurship in offering equitable access to high-quality education. Every kid has the right to a high-quality education, even those who attend public schools.

KEYWORDS: *Public Entrepreneurship, Quality Education, Public Education Sector.*

Introduction

As young entrepreneurs experiment with concepts in areas such as digital payments, online retail, on-demand delivery, education, software, and more during the past ten years, a number of start-ups have mushroomed around India. Therefore, the concept of entrepreneurship in the public sector may also increase the chances and potential for obtaining a top-notch education at the grassroots level. In a democracy, equality is valued. Through education, man leads a life in a democratic system. The aim of democracy is determined by educational standards. Man will be able to thrive and prosper in a democracy if there is the broadest possible availability of educational facilities for all of its members, not just for a select few.

India, which adhered to the democratic ethos, established the objective of equal opportunity in education and work after gaining independence. In India's constitution, it is also mandated that all citizens have access to educational opportunities. Therefore, everyone should have equal access to educational possibilities.

A teacher may play a very important role in promoting equal chances alongside government and non-government activities. First and first, teachers must understand the need of ensuring equal access to education. Getting females to attend school, study, develop a healthy self-image as adults, and contribute to the advancement of our community and country is possibly the toughest difficulty a teacher has. by reaching out to parents to inform them of the value of education and by organising enrollment drives for kids with the aid of Mahila Mandals, village panchayats, and non-governmental organisations (NGO) Make cautious to avoid conveying gender prejudice while transacting.

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Objectives of the Study

- To recognise the necessity of high-quality instruction in public schools.
- In relation to the idea of public entrepreneurship, this has the potential to enhance the equality of access to high-quality education in public schools.
- To be aware of some of the difficulties in putting the idea of public entrepreneurship into practise in public schools.

Review of Literature

- **Importance of Education:** It is true that education is one of the variables that might be very important in the fight for social justice; education is the sum of a person's abilities that will allow him to manage his surroundings and achieve his potential. Our ancestors created both formal and informal methods of learning and teaching, and education is generally understood to be a system of teaching and learning. The main goal of these methods was to introduce children and adolescents to certain ways of living. One of the most crucial ways to lessen ignorance and injustice in society is via education. The information, skills, beliefs, and attitudes one acquires via education assist one to lead a desirable quality of life, among other ways that it helps one to increase one's own social position. A person's initial step toward personal growth and societal advancement is primary education. The quality of our lives is significantly impacted by our abilities to read, write, and count. It grants freedom to speak, live an informed life, and comprehend the world and people. Therefore, a foundational education allows access to the world.

- **Public entrepreneurship:** Public entrepreneurship is seen to be a way to boost the effectiveness of the public sector. An idea with roots as the demands on society and public services grow increasingly severe and intricate. Public entrepreneurs, in contrast to social entrepreneurs, work for the government but are fundamentally a hybrid of the professions of a public servant and an entrepreneur. The basic idea is that although these responsibilities are often unique, the skill sets they necessitate need not be.

It also includes all creative ways that public authorities and their representatives operate to support sustainable development through market cooperation, economic progress, and citizen engagement.

- **Need of Public Entrepreneurship in Public Primary Education:** Better health and education are crucial prerequisites for long-term economic growth, according to the World Bank's 2006 report. This is because they boost efficiency, which increases individual income. Through the acquisition of training and skills, education generally helps an economy flourish, but basic education provides the groundwork for labor's capacities and is a potent force multiplier for socioeconomic development and the reduction of poverty. Its outcomes may be empowering, allowing people to take charge of their lives and make more informed decisions, aiding in the development of a democratic polity, raising earning potential, promoting social mobility, and enhancing individual and family nutrition and health, as well as empowering women to manage their fertility.

India is on the path to becoming a major economic force, but the country's low educational standards—which are manifested in large gender gaps in enrolment, education completion, labour market participation, and infrastructure—have raised legitimate questions about how it will be able to maintain this growth. India is a signatory to the sustainable development objectives, which include achieving universal primary education by the year 2029. As the deadline draws nearer, the school system is showing a trend of increased regional inequality as well as a gap between urban and rural educational accomplishment. Private schools have proliferated in India over the past ten years, but it remains to be seen if they can be effectively used to offer a competitive option to public education.

Current Issues in Education in India

- **Education Spending:** More money has to be set aside for the expansion of India's educational system. Numerous positive steps have been made in this direction over the past several years, and if they are kept up, India may soon be able to overcome its current difficulties. India has to adopt the UN's gross enrolment pattern as well.

- **Utilizing Students'** talents to the fullest extent possible is important since the world right now requires innovative thinkers. The government should push schools to do this and make sure that students' voices are heard.
- **Infrastructure facilities** should be improved, particularly in government schools. Government must take action to give the required facilities in government schools and rural areas since the government is increasingly focusing on digital education.

Scheme & Campaigns to Boost Education System in India

- The Sarva Shiksha Abhiyan was established in 2001 with the goal of promoting "Education for All," enhancing school infrastructure already in place, and building new schools. Visit the linked article to learn more about the Sarva Shiksha Abhiyan (SSA).
- National Program for Girls' Elementary School Education - The Government of India is making a concentrated effort to reach out to the "Hardest to Reach" females, particularly those who are not enrolled in school. Learn more at Moving Toward RTE And Quality Improvement In Elementary Education.
- All students enrolled in government schools, government-aided schools, local body schools, special training centres (STC), madrasas, and maktabas funded by the Sarva Shiksha Abhiyan get one meal under the midday meal programme (SSA).
- Radha Madhyamik A secondary school is made available within acceptable driving distance of every household as part of the Shiksha Abhiyan flagship programme, which aims to improve secondary education and increase enrollment rates.
- Scheme for Infrastructure Development in Minority Institutes - The scheme will improve and develop school infrastructure in Minority Institutions to increase access to formal education for children from minority communities, hence facilitating the education of minorities.
- Betting Bchao Beti Padhao programme encourages girls' education in India. To learn more about the BBBP initiative, go to the Sukanya Samridhi Yojana page.

Opportunity for Quality Education in Public Schools in India

With each passing year, the disparity between the poor man's school and the rich man's school grows more pronounced. The expansion of unregulated private education providers would worsen educational opportunity disparities in many parts of the world, with money or economic standing becoming the primary criterion for access to a decent education. Even elementary education is becoming a privilege of the rich, when it should gradually be made compulsory at all levels in accordance with States' commitments under international law. States need to be reminded of their primary duty to uphold and fully implement the right to education without discrimination or exclusion. They must adhere to the core values of equality for all people and the elimination of prejudice.

Research Methodology

Data Source

- **Secondary Data:** Websites, academic publications, government reports, and research papers are used to gather secondary data.
- **Primary Data:** Semi-structured questionnaires and interviews are used to acquire primary data from rural public elementary schools.
- **Sampling Unit:** Teachers and other academic personnel employed in the public primary education sector in Gurugram District, Haryana State, comprise the.
- **Sample Size:** We included a total of 60 elementary school teachers from the rural Gurugram region.

Growth Prospects for Promising Sectors in Haryana

Haryana is a well-developed state in terms of mechanics. It is one of the key states in terms of contemporary creation, notably in the automotive industry, the information technology sector, the pharmaceutical and chemical industries, protection assembly, and renewable energy. The third-largest exporter of programming is Haryana, which is also one of the preferred defences for IT/ITs firms. The state benefits from a number of advantages, including proximity to the NCT of Delhi, excellent legal conditions, a conducive strategic climate, qualified and talented workforce, responsive organisations, and so on. However, the COVID-19 situation has greatly hindered the development of these industries.

Due to its advantages, Haryana has been one of the states with the fastest growth as a target for sustainable and profitable companies over the past ten years. In various development-promising areas, the state has shown long-term manageability and development potential. To aid the promising initiatives, revitalise MSMEs, and make every possible effort to attract uncharted speculation, the state has been actively taking steps to revive the economy in the post-COVID scenario.

In terms of ease of doing business, Haryana is ranked first in north India and third nationwide. Haryana has discovered a technique to promote MSMEs in the states and corporate establishments. To comply with the need for these units, the state has undergone a number of layout adjustments. In order to move the state economy in the next direction for growth, the public authority of Haryana launched the "Endeavor Promotion Policy" in 2015 in coordination with the "Make in India," "Computerized India," and "Ability India" missions. The structure provides enticing reasons to engage with state interests. Various contemporary improvements to lessen the administrative burden and encourage private sector collaboration in the state's economic environment have strengthened it over the long run.

Challenges of Entrepreneurship in Haryana

On the current global ranking of the top five start-up networks, India is ranked third. The country has the opportunity to make a strong first impression by establishing itself as a start-up nation in the eyes of the entire globe. India is the highest-level economy in Central and Southern Asia, showing particular qualities in the tertiary area and R&D, the nature of its colleges, and logical distributions. Its market complexity and ICT management propel it to the top of the global rankings. India has improved its development positioning in the GII to arrive at the 66th position from its last year's position of the 81st. additionally, in terms of progress relative to its GDP, India overreaches. In terms of development quality, it is second only to Brazil among center-pay economies.

Suggestion and Policy Implications

- Education has the potential to fundamentally alter the position of women.
- Teachers might encourage each student equally to take part in the school's extracurricular and academic activities.
- Reorienting public teacher training programmes is a possibility.
- The success of the idea of public businesses in OECD nations and the western world is something we can learn from for our public education system.

Conclusion

Knowledge, skills, and expertise are the major drivers of economic growth, especially in an era of technology-driven disruptions when the need for skills and knowledge is always changing.

Through a number of efforts throughout the years, educational institutions have been available to people all around the nation. The next step is to make sure that students stay enrolled and continue to learn so that they may grow into empowered and productive citizens who can play a significant role in the nation's economic development. To do this, a supportive environment will need to be created, including welcoming school facilities, instructors who are passionate about what they do, and a pedagogy that transitions from rote learning to conceptual techniques that may keep both teachers and students interested and engaged. To satisfy the aspirations of the incoming generation, we must immediately overhaul our educational system.

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A STUDY ON THE CREDIT REPAYMENT BEHAVIOUR IN FINANCIAL INSTITUTIONS

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ABSTRACT

Microcredit loans can benefit the economically and socially underprivileged by offering employment possibilities. Microfinance institutions, particularly sponsored microfinance organizations, encounter challenges in loan repayment in addition to difficulties in reaching out to the poor and offering microcredit loans. Lower loan collection might be caused by borrowers or by microfinance businesses creating unfavorable loan product features. Various aspects of loan repayment in microfinance organizations have been investigated in this study. The goal of the present study is to examine the repayment behaviors of Indian microfinance, loan borrowers and to analyze the kind and quantum of indebtedness among Indian families. The effect of the new coronavirus pandemic on microfinance loan repayment is also explored. It also discusses the payback aspect in regard to women, as well as how gender differences impact loan repayment.

KEYWORDS: *Microfinance institutions, borrowing, COVID-19.*

JEL Codes: *G21, G51, I19.*

Introduction

Microfinance is now a widely accepted and well-known method of meeting the financial needs of the underprivileged all over the world. Impoverished farmers, microbusiness owners, craftsmen, and other poor groups have various obstacles in getting credit for their financial needs from other formal and informal sources. Many government agencies and institutional structures have tried to offer loans for agricultural purposes, particularly to smallholder farmers.

Loan repayment risks, liquidity risks, interest rate risks, foreign exchange risks, operating risks, technical risks, fraud risks, regulatory risks, off-balance sheet risks, and capital adequacy risks all come with the process of making loans by financial institutions (Santomero, 1997). Financial institutions should provide suitable and effective loan repayment settings in order to decrease risks.

Microfinance is a fundamental and crucial strategy for alleviating poverty in underdeveloped nations. Many governments have recognised this and have begun to fund people's upliftment in a variety of ways.

Microcredit, according to some, empowers women. However, the rise in non-performing loans (bad debt loans) has resulted in increased provisioning and other administrative costs, while the suspension of interest on non-performing loans has severely reduced the bank's income and profitability. This unfavorable reality tarnishes the bank's reputation and makes it more difficult for it to participate in the countries' development efforts. In light of loan delinquencies, the current study article focuses on borrowers' loan repayment behavior and its determinants.

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Literature Review

Abraham, K et al. (2018) studied the effects of available student loan repayment plans on borrowers' career choices.

Blanco-Oliver, Antonio, Nuria Reguera-Alvarado, and Gianluca Veronesi analysed the credit risk in the microfinance industry

Chakraborty, T & Gupta, A. Studied the source and purpose of borrowing, consumption and production patterns of households taking loan from different sources to gain insight towards the existence of moral hazard problem.

D'espallier, Bert et al. Focused on women in microfinance institutions.

Janssens, Wendy, et al. did an examination of COVID-19's short-term economic effects on low-income households in rural Kenya utilising weekly financial household data.

Malik, K et al. (2020) focused on the implications for local microfinance institutions and various households during the pandemic.

Mersland, Roy et al.(2010) Focused on women and repayment in Microfinance.

Seyedmehrdad Mirpourian et al.(2015) Investigated the repayment behaviour of borrowers of a nonprofit Indian microfinance institution, Indian Institute for Mother and Child, using a novel data set comprising approximately 20,000 installment records within the period April 2009 - November 2012.

Wu, Desheng Dash et al. Studied the effect of COVID-19 on the banking sector.

Objectives

This research paper attempts to throw light upon the following objectives:

- Analyzing the determinants of micro-credit repayment performance
- Analysis of the category of clients prone to greater default probabilities
- Effect of pandemic on repayment of loans
- Gender differences with respect to microfinance repayment rates

Research Design

The present study is based on the information collected from secondary sources. The secondary data has been drawn from articles published in leading journals, books, surveys conducted, empirical studies published in professional and academic journals, websites, etc.

- **Internal Secondary Data Research**

The statistical data has been derived from sources including External Commercial Borrowing by ING Group (Financial Services Corporation) and Company- EMKAY Research.

- **External Secondary Data Research**

The data has been obtained from several sources, such as, Reserve Bank of India, TransUnion CIBIL and Financial Stability Board.

Determinants of Loan Repayment

Microfinance institutions (MFIs) benefit greatly from a thorough grasp of the mechanisms that determine loan repayment performance. Knowing the primary repayment determinants allows MFIs to identify borrowers who are more likely to default, allowing them to better allocate loans and increase payback rates. A greater payback rate benefits both MFIs and borrowers, as higher repayment rates allow MFIs to lower the interest rate charged. Lowering the financial cost of borrowing makes credit available to a wider range of borrowers. A greater knowledge of these challenges, as well as the other elements that influence borrowers' behavior, can help Microfinance develop.

The literature has differently defined and identified the drivers of loan repayment performance. Gender, age, previous experience in the same sector, education, income, business sector, formality of the borrower's business, social ties of the borrower, group homogeneity, payback period, type of loan (cash or in kind), loan size, proximity of the borrower's business to the lending agency, and motivation of the borrower are all factors that influence loan repayment performance.

- **Women**

Female borrowers, according to studies, have a reduced probability of default and, as a result, have better loan repayment performance than male borrowers (Roslan and Abd Karim, 2009; Mokhtar et al., 2012; Bennett and Goldberg, 1993). This is said to be because women use microcredit as a tool to empower their families' finances. Godquin (2004), on the other hand, conducted a study and found no significant difference in repayment performance between female and male borrowers.

- **Age**

Furthermore, loan repayment performance is discovered to be dependent on the borrower's age. Borrowers aged 18-25 face a higher risk of default than older borrowers due to a lack of experience.

Business

Borrowers with greater experience in their field typically have better payback records since their businesses are more solid and their cash and income flows are more predictable.

Education

Furthermore, data shows that educated borrowers are less likely to default. Borrowers benefit from education in two ways. For starters, borrowers with stronger arithmetic and accounting skills will have an easier time running their businesses. Second, educated borrowers are more likely to find a part-time or second employment. As a result, they will be able to repay their loans with less issues if they encounter difficulties. In a study conducted in Pakistan, it was discovered that debtors with a primary education have better payback performance than those with no formal education. Borrowers' productivity rises as a result of education, and borrowers have a better grasp of microfinance programmes. Because products and services in developed countries are more complex, education is especially important for microfinance borrowers in these countries.

- **Occupation**

Furthermore, loan repayment performance differs depending on the type of organisation. Farmers' businesses are regarded to be easily affected by weather conditions, whereas non-farmers' enterprises are not. As another example, it is clear that handymen and street merchants have limited credit options. As a result, borrowers in informal enterprises are less likely to default because microfinance loans are typically their only source of credit, and they are determined not to damage their credit history.

Other factors to consider include the nature of the groups and their social ties. In comparison to younger groups, older groups fare better in terms of repayment. Members' years of involvement in a group.

- **Socio Economic Factors**

Because similar socioeconomic backgrounds can build kinship bonds that promote mutual monitoring among group members and create incentives for loan repayment, more homogeneous groups had better repayment performance. Similarly, the social environment is predicted to have an impact on loan repayment performance. Interpersonal ties appear to improve loan repayment performance through increasing peer pressure and peer monitoring. In a study of 137 credit groups in Guatemala, Wydick (1999) found that peer pressure and peer monitoring enhance payback performance significantly among rural and urban borrowers.

Penalties such as social sanctions, public disgrace, and social exclusion were also found to have a favourable impact on loan payback performance.

- **Characteristics of Loan and Bank**

A larger loan size enhances a borrower's predicted profit. This occurs because the net return increases as the loan size increases, and borrowers always prefer larger loans. It has been proven that raising the loan size lowers the loan payback rate.

According to Godquin (2004), greater loan sizes make it more difficult to repay the debt over a set period of time. Matin (1997), on the other hand, finds that loan size has no effect on loan repayment performance.

The distance between the borrowers' place of business and the microfinance institution's lending office has an impact on repayment performance. Borrowers who are closest to the lending office

communicate with the MFI more effectively. This enables the MFI to provide more effective assistance in the event of a crisis. Furthermore, because they are closer to the lending office, borrowers spend less time commuting, which allows them to devote more time to their own business.

Category of People WHO are More Likely to Default

- **Students**

The most significant impediment to repayment among off-track borrowers was financial insecurity. Borrowers reported intending to make payments but being unable to do so due to additional financial issues, such as unanticipated costs that reverberated through their personal balance sheets, across all off-track categories. These borrowers stated that they had limited resources and that they needed to pay for transportation, housing, child care, and groceries before they could pay off their student loans. These trade-offs were more severe among low-balance, off-track borrowers, who reported making considerably fewer payments than other off-track borrowers.

57 percent of those with college debts are worried about not being able to pay them back. A regression framework was utilized to evaluate the connection between student-loan repayment worry and individual- and household-level variables in order to figure out who is most concerned. Persons with some college but no degree and people with graduate degrees are 13 percent to 14 percent more likely to be anxious about repaying student-loan debt than people with college degrees.

Lower-income families are far more likely to be concerned about their capacity to repay their college debts. People in families with earnings below \$25,000, for example, are 86 percent more likely than those in homes with incomes above \$100,000 to be concerned about repaying their student debts. People with incomes between \$25,000 and \$50,000 are nearly twice as concerned about repayment, with 72 percent more likely to be concerned.

Due to conflicting requirements and expenditures, having financially dependent children is significantly linked to worries about student debt repayment. Individuals with two financially dependent children are 18 percent more likely than adults without financially dependent children to be anxious about repaying their college debts. Even after adjusting for home income, people who are not employed full time are more concerned.

- **Farmers**

Exclusion from the financial industry has a significant negative impact on welfare, particularly for the poor. The high interest rate on informal lending, as well as the usurpation of assets from rural households in the event of failure, are two key issues. Informal finance is frequently perceived as anti-developmental, exploitative, and prone to consumption rather than investment. As a result, many low-income nations' banking sectors have seen regular government involvement. For example, in 1982, Mexico nationalized its banks, and in 1995, Nigeria and the Philippines made it mandatory for banks to lend a specific amount of their loans to priority sectors. This guarantees that credit is provided at a lower cost to the disadvantaged areas of the country. At different points in India's history, significant banking projects have been implemented under the government's auspices. Priority was given to areas that had never had a formal credit or savings organisation. In 1977, the Indian central bank committed to expanding bank presence in rural regions by implementing a 1:4 policy, which required the establishment of four rural branches for every urban branch. Furthermore, in 1980, the central bank implemented a directed lending policy that mandated all banks to lend at least 40% of their lent funds to priority sectors like agriculture. By 1985, the central bank hoped to have met this goal.

The governments of Telangana and Andhra Pradesh announced substantial loan forgiveness programmes as recently as 2014. The victorious party in Tamil Nadu's 2016 state elections canceled Rs 57.80 billion in crop debts, jumping on the loan waiver bandwagon. With agricultural credit expanding at an increasing rate in recent decades (Reserve Bank of India, 2014) and the Indian government continuing to push formal sources of borrowing, it is now more important than ever to understand the efficacy of this line of policy interventions and see how borrowers respond to formal versus informal loans. There is some indication that loan waivers affect farmers' borrowing behavior, according to existing studies. In his study on the 2008 national debt waiver programme, Kanz (2012) indicates that such economic stimulus measures may skew borrower incentives and lead to moral hazard.

Effect of Pandemic on Repayment of Loans

The novel coronavirus has led to a grave threat to mankind. Countries all over the world have witnessed a decline in their GDP due to the Covid-19 pandemic. The lockdowns imposed were the first line of defence against the pandemic but unfortunately they came at the cost of livelihoods. A question that is constantly being asked about it is: ‘Save lives or livelihoods?’. Majority of livelihoods have collapsed due to the imposition of lockdowns globally.

The aim here is to analyse the effect of Covid-19 pandemic on repayment of loans. Due to the collapse of household incomes, because of the imposition of lockdowns, the ability of the borrowers to pay loans has collapsed as well. The paper attempts to build insights from a series of statistical data, figures and facts, measured to the most precise values.

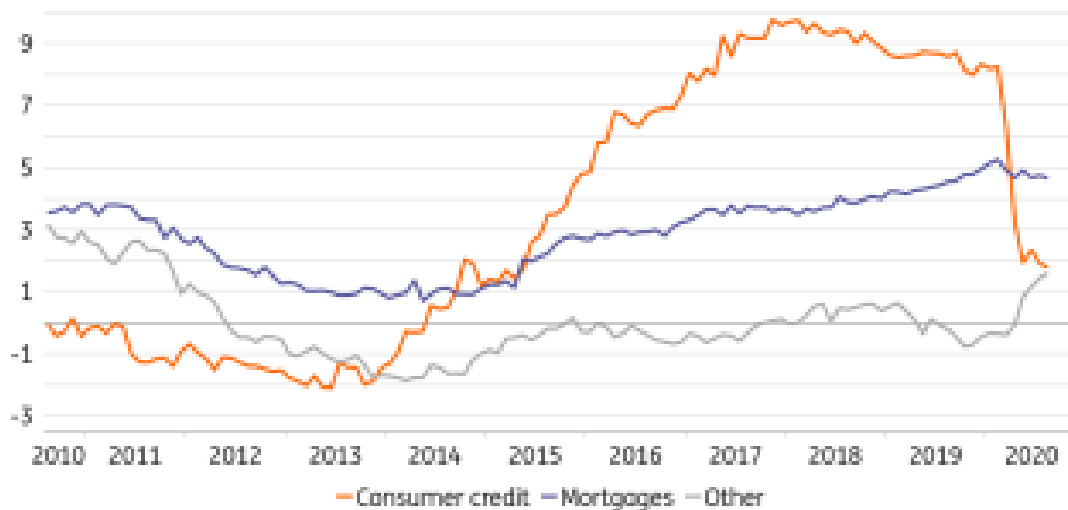
Considering the gender aspect in loan repayment performance, some studies have revealed that female borrowers have higher credibility as compared to the male borrowers (Bennett and Goldberg, 1993). Various other studies have revealed contradicting results, Godquin did a study and found that the difference shown in repayment performance rates is not much significant.

Besides, it has also been discovered that the age factor also affects the repayment performance. Borrowers who are of a young age, especially around 18-25, have greater default risks and hence low repayment performance. This is primarily due to the above-mentioned age groups’ lack of expertise managing commercial activities. People with more experience, on the other hand, perform better in terms of repayment.

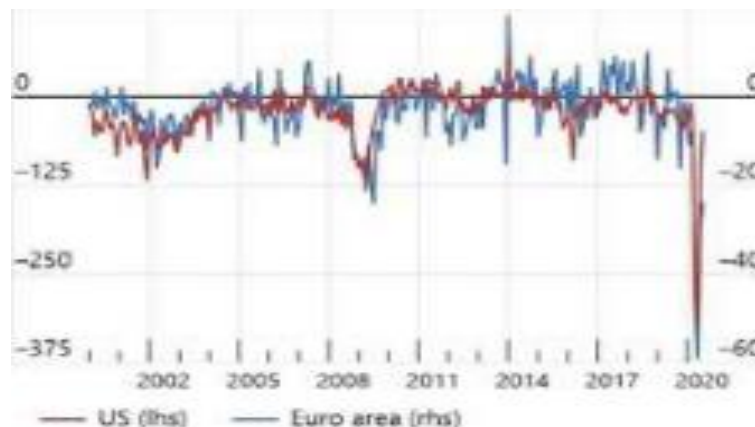
Since March 2020, the Reserve Bank of India (RBI) has cut the repo and reverse repo rates by 115 and 155 basis points, respectively, to 4.0 and 3.35 percent. The Securities and Exchange Board of India (SEBI) has temporarily eased debt default on rated securities laws, lowering the required average market capitalization of public shareholding and the minimum listing time. In addition, the RBI determined to adopt policies that would benefit both lenders and borrowers (through end August,2020) The quantity of money borrowed rose as a result.

Because of larger capital buffers, banks have been able to withstand losses in light of the global scenario. As a consequence, banks were able to continue providing financial services, such as lending money to creditworthy individuals and businesses, contributing to the economic recovery. Due to a restricted availability of short-term nonbank credit, there was a notable increase in bank lending internationally, leaving non-financial companies with no other choice to meet their funding gaps. This occurred at a period when banks tightened their lending standards in response to the worsening of the overall economic outlook and increased credit risk among firms. As a result, corporate bond issuance has increased.

Graph 1: Increase in Bank Lending



Data source: External commercial borrowing, ING Group



Data source: Financial Stability Board

The graph above depicts that the credit demand is rising while credit quality can be seen deteriorating "Older loans that were taken in 2019 or early 2020 are at a higher risk of default and they form about 60-65% of the loan book for lenders," said Harsh Shrivastava, former head of the Microfinance Institutions Network, an association representing the sector in India. Banks saw an impact on the recovery rates, yet the loan default risk has largely minimized due to the grant of moratorium on repayment of loans and other measures to reduce the interest burden by the Reserve Bank of India (RBI).

Table 1: Sectoral Share in Credit by Various Sectors

Sectoral Share in Credit by SCBs		
(per cent, end-March)		
Sector	2014	2021
Economic Sector		
a) Agriculture	12.0	12.0
b) Industry	42.7	28.9
c) Transport operators	2.1	2.1
d) Professional and other Services	7.6	7.4
e) Personal Loans	16.2	26.3
of which, Housing Loan	8.5	13.8
f) Trade	9.2	10.8
g) Finance	8.2	9.8
h) Others	2.0	2.7
Total credit	100.0	100.0
Organizational Sector		
i) Public Sector	18.2	16.8
ii) Private Corporate Sector	37.6	27.7
iii) Households Sector - Individuals	33.4	43.2
iv) Household Sector – Others (including proprietary concerns, partnership firms, Hindu undivided families)	9.2	10.3
v) Others (MFIs, NPISHs and NRIs)	1.6	2.0
Total credit	100.0	100.0
MFI – Microfinance institution		
NPISH – Non-profit institution serving household NRI – Non-resident Indian		

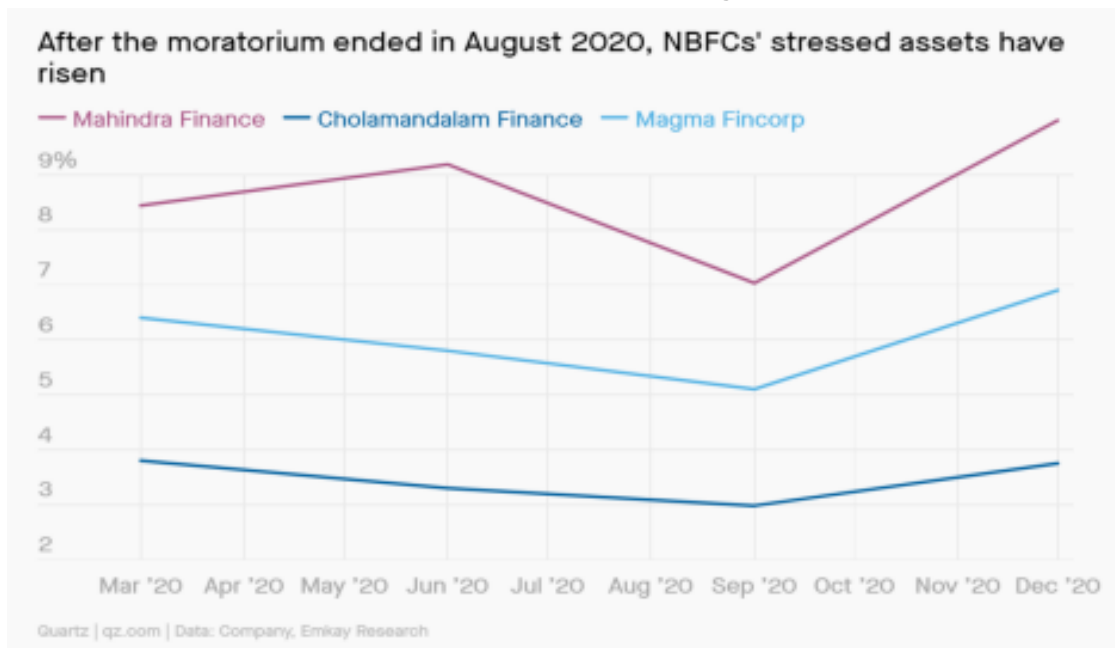
Data source: Basic Statistical Returns, Reserve Bank of India

The share of total bank credit allocated to the industrial sector has decreased, whilst the share of personal loans has increased dramatically.

The influence of the Covid-19 pandemic may also be evident in the case of non-banking financial entities following the economic recession and liquidity shortage. The increase in the amount of stage 3 assets, which are accounts that have failed on loan payments for more than 90days, is a crucial

indicator of this impact. During the months of October and December, the numbers skyrocketed. The rise in bad loans was evident in the December quarter, when stage 3 bad loans nearly doubled to 2.87 percent of total loans.

Graph 4: Increase in stress levels of Non-Banking Finance Companies



Data source: Company, EMKAY Research

The above line graph depicts 3 Non banking finance companies, namely, Mahindra finance, Cholamandalam finance and Magma Fincorp. It can be seen that these 3 companies also witnessed an increase in their stress levels. In the December quarter their stage 3 assets also saw spike.

Gender Differences with Respect to Microfinancier payment Rates

Women make up 40% of the labour force. Women rely heavily on the majority of industries that contribute to global economic growth. Female-owned small and medium-sized enterprises (SMEs) account for 30% to 37% of all SMEs in emerging markets (8 million to 10 million women-owned businesses). Despite this, obtaining credit for a woman is far more difficult than for a man, particularly in the official and traditional banking sectors.

Women have a far higher demand for microfinance services than men. A number of reasons have contributed to this. For starters, traditional banks restrict women's access to loans since they are frequently viewed as less creditworthy (Agarwal, 1994). Low educational levels, as well as lack of time and mobility, worsen the problem, as they are unable to borrow money through standard banking channels. For these reasons, women are hesitant to participate in the traditional banking sector's lengthy and costly procedures. The existence of patriarchy in many countries exacerbates the situation, limiting women's financial freedom.

The second feature that may be seen is the labor market. Whether in the entrepreneurial or self-employed sectors, the number of female workers in the labor market has increased. This helps to understand why microcredit facilities are so popular. Women are also more willing to pay higher interest rates due to their limitations in the official banking industry. Microcredit financial institutions prefer to lend to women for a variety of reasons, the most important of which is that female borrowers have higher creditworthiness than male borrowers. (Bennett and Goldberg, 1993).

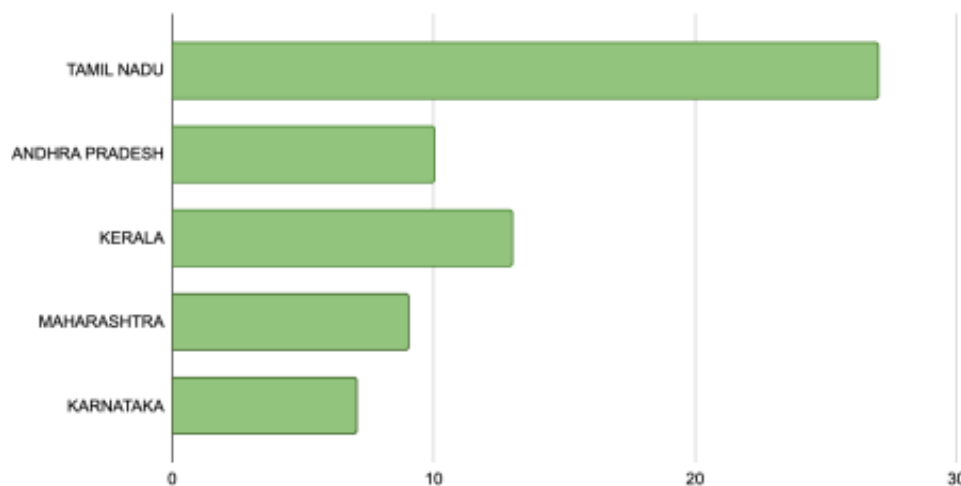
According to Gibbons and Kasim (1991), in Malaysia, 95 percent of women repay their loans while only 72 percent of men do. In a Guatemalan study, Kevane and Wydick (2001) discovered that female credit groups outperformed male credit groups.

Other studies, on the other hand, have produced contradictory results. According to various studies, there is no relationship between debt repayment and gender. After controlling for a number of MFI-specific factors, Godquin (2004) discovered that the relationship between gender and repayment is favorable but not significant in Bangladesh.

Microfinance institutions with a larger gender composition have lower credit risk and higher repayment rates, according to research. The percentage of female clients is used to establish if the microfinance organization has a female gender bias in lending.

The states with the most female micro, small, and medium firms received a higher number of loans. When looking at the Indian situation, it was discovered that Tamil Nadu and Kerala have the lowest borrowing risk, with women's CIBIL scores averaging 781.

Graph 5: Top states for female borrowers in India



Data source: TransUnion CIBIL

The graph above shows the top states for female borrowers. In these states, there has been an increase in the number of micro, small, and medium-sized firms, which has led to an increase in the supply of microfinance loans.

The second major factor influencing repayment performance is the microfinance organizations' experience. A microfinance institution with more experience is more likely to adjust its internal procedures and standards to a constantly changing environment.

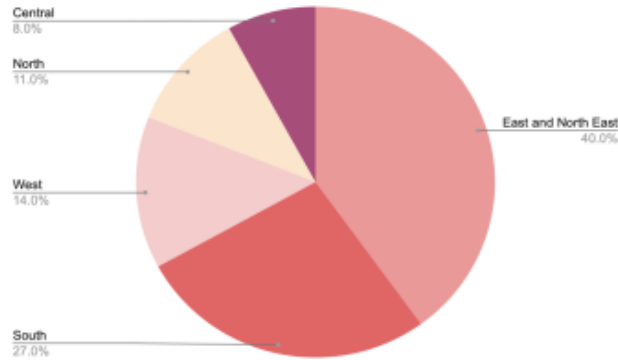
The gross loan portfolio, or GLP, is the focus of the study's next part. It refers to the total outstanding principal balance of all existing Microfinance institution loans, including current, overdue, and restructured loans, but excluding written-off loans. Interest receivable and cumulative interest are excluded from the calculation.

Banks and SFBs had 41.7 percent and 16.9 percent market share in microfinance in the third quarter of FY21, respectively. NBFC-MFIs retained a nearly consistent market share of about 30% during Q4FY20 and Q3FY21, climbing to 30.6 percent at the end of Q4FY21. Microfinance institutions' gross loan portfolio climbed by 6.4 percent to 2.27 lakh crore in December 2020, up from 2.13 lakh crore the previous year, according to studies. Microfinance enterprises noticed a lot of repayment stress in rural markets compared to urban markets. In light of the situation in India, the states of Assam and West Bengal, with 23.1 percent and 22.8 percent of the population, respectively, experienced exceptionally high levels of stress.

In December 2020, banks were the largest microfinance lender with 41.8 percent of the gross loan portfolio, followed by microfinance institutions with 31.8 percent and small financing banks (SFBs) with 16.9 percent.

Various studies have also revealed that the gross loan portfolio might grow by 10%-15% in the financial year 22

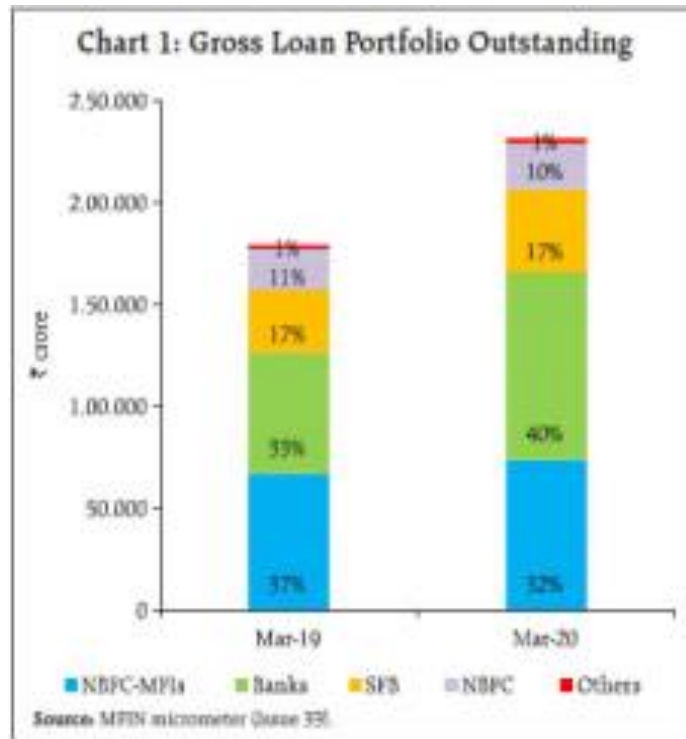
Graph 6: Pie chart depicting the portfolio geographical distribution in India



Data source: Reserve Bank of India

The above pie chart represents the portfolio geographical distribution in India. As can be seen. The highest portfolio is in the Eastern and north eastern states at 40% followed by South 27%, West 14%, North 11% and Central at 8%.

Graph 7: Bar diagram depicting the gross loan portfolio outstanding



Data Source: Reserve Bank of India

The above bar diagram depicts the gross loan portfolio outstanding for different financial institutions. For March 2020, banks have the largest gross loan portfolio outstanding at 40% followed by non banking financial institutions- Microfinance institutions at 32%, SFBs at 17% and NBFC at 10%.

Conclusion

This paper looked at different aspects of loan payback, such as repayment factors, pandemic effects and gender differences with respect to loan repayment, the impact of loan limit, quantum of loan,

and company activity on microfinance borrowers' loan payback performance. According to the findings of the analyses presented above, MFI borrowers' motivation to obtain the maximum loan amount is positively related to their payback performance. While no statistical evidence of structural disparities in repayment performance in different types of business operations and in different branches of the same MFI has been consistently identified, more research on these areas could provide a better understanding of these problems. The purpose for which a loan is obtained, the length of the loan, the interest rate, and the source of borrowing all influence loan repayment.

The influence of the COVID-19 pandemic was also examined in this paper. The pandemic is unlike any other crisis that has occurred previously. It affects both the client and the capital sides of microfinance at the same time. MFIs are experiencing a lack of repayments as well as capital and liquidity from their funders. What our polls have shown to be true in India appears to be true in most nations, resulting in a catastrophe for the sector as a whole. This paper also investigated the repayment of loan aspects in relation to women. It is found that women have better repayment rate as compared to men. The intriguing question is whether women repay better because their businesses are more profitable or because they are more responsive to enforcement procedures and social pressure.

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AGRICULTURE COST ACCOUNTING (COST OF WHEAT & BAJRA IN HARYANA AND RAJASTHAN STATE W.E.F. 2014 TO 2018)

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ABSTRACT

All over the world, agriculture is one of the important economics activities. It is the first settled occupation and even today it is by far the most important and numerically superior industry, since roughly 75% of the world population depends on it. It contributes a sizable portion of the national income of the country and also contributes considerably to our exports, which earn foreign exchange with the help of which earn foreign exchange with the help of which we import capital goods and other necessary commodities. It satisfies the bulk of the demand for industrial goods and absorbs the bulk of work force rendered seasonally unemployed in some industries and is thus the last refuge of employment for them. Since independence, various measures have been taken to improve this sector but scientific techniques of management have not yet been introduced in this sector. Even ea standard form of accounts for recording and analysing the transactions of agricultural farm have not yet been developed and, till now, farmers are not aware of the benefits of maintaining accounts of such necessary activities in a systematic and standard form. Farm accounting and management in our country has received far less attention than industrial and business management and accounting. Till now, no comprehensive, detailed and systematic accounting methods, costing system and managerial techniques have been introduced in this sector.

KEYWORDS: *Agriculture Farm Accounting, Farming Activities, Kharif Crops, Rabi Crops, Commodities-Wise & Year-Wise Cost-Profit, Irrigated Farm, Non Irrigated Farm, Marketing, Warehouse.*

Introduction

Cost can be defined as a branch of accountancy that classifies records, determines profits or loss and arranges data for farm management decision through analysis of farm transaction. In any organisation economics activities are the sources of heir transactions. The nature of transactions depends on such economics activities. In the agricultural farm the nature depends on the characteristics of their economics activities, production process, nature of input and output, warehousing and marketing system. The nature of transactions of agricultural farm is not the same as in other types of trade, industry or commerce. There are some typicality's in the process of accounting of agricultural transactions. Therefore, Agricultural Farm Accounting can be defined as the principles and techniques of accounting farm transactions in accordance wit their typicality's.

Further, it can be said that the appropriate accounting system of an agricultural farm also depends upon its organistional structure. So, Agricultural Farm Accounting can also be defined as the principles and techniques of accounting farm transactions in accordance with their organisational pattern and transactional typicality's.

Generally, accounting has been classified into three kinds, according to the needs of information, which are financial accounting, cost accounting and management accounting.

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In financial accounting, all the economic activities are recorded in order to calculate the financial results for a particular period and to exhibit the financial position of an organisation on a particular date. In cost accounting, the accounts are maintained in respect of expenses incurred in order to control the same and to judge the profitability of the organisation. The object of management accounting is to provide necessary information to the management or manager for decision-making. From these objective point of view, Agricultural Farm Accounting is the combination of Agricultural Farm Financial Accounting, Farm Cost Accounting and Farm Management Accounting.

In the case of agricultural farm, accounts may be maintained on the basis of any of the following methods:

- Periodic Accounting Method.
- Crop –wise Accounting Method.
- Seasonal Accounting Method and
- Land-wise Accounting Method.

Importance of Farm Cost Accounting

Proper accounting ensures, no doubt, better control by management. In order to manage any type of business or industry properly, it is necessary to maintain accounting records and analyse these records. The need for agricultural farm accounting is exactly similar to the need for accounting in any other type of business or industry. The main utility of maintaining agricultural farm accounts is summarized below:

Accounting of an agricultural farm would enable the farmers to:

- Have correct information about various types of expenditure like seeds, manures, labour and equipment etc.
- Ascertain the total cost of production.
- Assess the crop-wise or land-wise cost of production.
- Ascertain the profit or loss during a particular season or period and
- Calculate the profit or loss per acre of land and also per crops.

Agricultural Farm accounting provides information relating to value of assets and agricultural equipments, tools livestock, seeds etc. at the end of each year and also the value of stock of produce in hand. It will help the farmer in obtaining loans from banks and other financial institutions because they give loans on the basis of proper accounting records. It will not only make the farmers free from clutches of the village's moneylenders but will also reduce their indebtedness.

Agricultural Farm Accounting records help the farmer to compare the results from time to time with those of the preceding years; analysing reasons for increase and decrease, if any. Proper maintenance of farm accounts will also help the farmers in getting a reasonable price of their produce and return on capital employed in farming activities can be ascertained if proper farm accounts are maintained. It provides accurate data regarding production, which is necessary for proper future planning. It also provides data for controlling the farming activities. Proper maintenance of accounts will help the farmer in deciding whether he has sufficient liquid resources to meet his liabilities and whether fresh funds would have to be collected from different sources.

Regular and systematic maintenance of accounts relating to farming activities will have several properties, which are:

- Regularity
- Consistency
- Authenticity
- Completeness and
- True reflection of state affairs in respect of both operation and assets and liabilities of the farm

Besides this, other following information can be obtained:

- Whether his income is satisfactory,
- Whether the expenses are reasonable in relation to the size and nature of his farm.

- What is the actual position, as compared with other similar farm?
- How to increase the operating efficiency further and plan for the future.
- What is the crop-wise cash flow?

Techniques of Analysis of Farm Cost Accounting

It is necessary to take proper initiative for introduction of Farm Accounting System by the Government. In every Gram Panchayat or village level office, one Farm Accounting Assistant should be appointed and training for accounting should be arranged for farmers.

Some steps have been taken by the Institute of Cost and Works Accountants of India and the Institute of Chartered Accountants of India for developing some technique for maintenance of accounts in agricultural sector. ICWA has published a book Farm Management Accounting and Control and the Institute of Chartered Accountant of India have also published a research book Monograph on Accounting for Agricultural Operations. The monograph suggested two alternative methods of record keeping, avoiding debit –credit mechanism (double entry system) and simplifying the system.

The first system of accounting is based on certain classification of transactions, assets and liabilities. This system lays down a set of books through which the transactions are to be recorded. It has been classified the transactions into exchange and revenue. Exchange transaction means:

- Creation of assets by creating a liability or extinguishing an asset.
- Extinguishments of assets by creating another asset or extinguishing a liability.
- Creation of liability for extinguishing another liability or creation of assets and
- Extinguishments of liability by creating another liability or extinguishing assets.

This system suggested preparing the Day Book, Fixed Asset Register, Non –monetary Current Asset Register, Register of Monetary Asset and Register of Liabilities. This system also provided other statement viz., Statement of Net Worth, Statement of Net Profit, Statement of Income and Expenditure and also the Statement of Receipts and Payments. This system avoided the normal system of recording the transactions in the primary & secondary books. But in this system “Day Book” is maintained which is practically a complicated task for the farmers and the preparation of income statement is also a problematic one because it does not provide any system or compilation of transactions and events into suitable accounts heads.

Objectives

All Agriculture activities right from the proportion of land for agriculture uses such as Sowing, Uprooting of Weeds, Storages, Self consumption and Marketing in mandies, besides following are the objects of the above study are as follows: -

- Maintaining proper books of account regarding to keep all the income and expenditure which are either relating to directly or indirectly in agriculture activities.
- To calculate the amount of profit and loss so that actual income during the year is to be calculated.
- To awareness the better opportunities for marketing the Agro-output.
- To provide the guidelines regarding the different types of crops and give necessary information those types of crops which yields maximum amount of profits.
- To examine and highlight the problems faced by the farmers regarding the obtaining Equipments, Loans and their repayment of loans to different commercial and co-operative banks.

Hypotheses

The study has the following hypotheses:

- Farmers are not aware of the cost concept and there is no method available for ascertaining the cost of agricultural produce.
- Farmers do not keep the written records of cost incurred. And the existing cost accounting literatures do not suggest any method of writing cost accounts for farming activities.

- The cost of producing wheat and bajra per kg. is higher than the wholesale price at which the farmer is able to sell his produce. Therefore, the farmers are losing their capital every year.
- The backbone of India's economy is agriculture as it contributes 33% in GDP and this sector provides employment to a very big chunk of the vast populations as well. But unfortunately this sector is ailing and heading towards serious illness.

Type of Farm Cost Accounting

In recent times, important changes have taken place and caused a great variety with respect to production, the family members' involvement and interest in agriculture and the families' dependence on the produce of the farm for living. The increase in population, the increase in non-agricultural opportunities for existence, the technological changes in agriculture and the different ways of transferring the farm to the next generation have caused the emergence of new types of farms.

Mainly two types of farms have emerged or increased in number and importance

- Farms whose household members have adopted multiple employments
- Holdings belonging to aged people whose children have migrated or separated from the parent's family.

Farm Household with Multiple Employments

Increasing population and the custom of dividing the farm among the children with the change of generation have resulted in an ever-increasing reduction of farm sizes. Many farms have become so small that they do not suffice as the family's basis of livelihood. On the other hand, in many countries, the numbers of job opportunities outside agriculture or even outside the country have increased. Both factors have caused the spread of multiple employments among smallholder household members, which, to a limited extent, always extended to multiple employment.

Individual Income Combination

Here, the cultivator himself takes up a non-agricultural main or side occupation or works as agricultural labourer on other farms. This is always necessary if no children of working age are available. It is often difficult to combine both activities because the animals need daily care and because of the seasonality of labour demand in agriculture.

House Income Combination

Here, one or more sons (in some societies, daughters as well) take up non-agricultural employment or work as agricultural labourers and give at least part of their salary to their family. The job can be taken up locally or in distant places, even abroad, because the children are not tied to the farm. It can be permanent or assumed whenever employment is offered. In other cases, working life is divided into two sections. Up till about 45 years of age, the men work outside the village, often in distant places, and the father operates the farm.

Extended Family Economy

Nuclear families maintain close social and economic ties even after migration. A network of cooperating families of various types is emerging with the farm as center. The urban branches of the extended family receive foodstuffs from their parents' farm as support or for sentimental reasons, sometimes let their preschool children live on the farm to save rent in the city, and have the right to return, which is an important security. Inversely, services are offered the other way round in the form of help during harvest time or remittances.

Household Production

An effect similar to that of gainful employment outside the farm can be achieved if production and repairs are effected within the household. Production and processing bring income, and if the farmers do the maintenance and repair work themselves instead of letting others do it against payment, this saves expenditure and thus increases the standard of living. While in former times this was widespread and constituted an important way of improving the level of living, with increasing development and specialization of activities, its importance is shrinking.

Consequence of Multiple Employments

In all the cases described the notion of a farm, the prototype of agriculture, which absorbs all family labour and provides the living for the family members, is not applicable.

Instead of farms, we have households, which resulted from various types of families and several economic activities. Their source of income can vary from time to time, from person to person, and can be earned in different localities.

Under such conditions, the goals of the family members may vary. In the past, the interest of all family members was centered on the farm. Now, the aim is to improve the basis of existence and the standard of living regardless of the means by which this can be achieved. The attitude of the youth, especially, has changed. While former generations wanted a share of landed property (land to the tiller), now the wish is for income opportunities, wherever they come from. We have to forget the notion that every small farmer's son is happy if he can continue farming. He might be, if the farm is large enough for modern farming. But he probably is not happy if the farm is too small or if for other reasons he has to continue traditional farming, especially if other options are available. For the fathers' generation, it was predetermined that the son would take over cultivation; for the young boy of today, this often is one option among several. In many cases, experience shows that great expenses and difficulties are involved in finding a non-agricultural job. However, many of these young people are successful and, in this case, a higher standard of living is achieved more rapidly than by hard work in agriculture. Therefore, relatives usually support young men in their hard, long and not always successful search for jobs.

Cost of Production (Year-wise – Commodity-wise) in Rajasthan (Irrigated Farm)

Sr. No.	Resp. No.	WHEAT						Average	BAJRA					
		2014	2015	2016	2017	2018	2014		2015	2016	2017	2018	Average	
1	1	8.72	9.16	9.89	10.88	11.97	10.12	10.91	11.13	11.35	11.57	11.80	11.35	
2	2	11.21	11.53	12.07	12.80	13.60	12.24	12.27	12.42	12.57	12.73	12.88	12.57	
3	3	11.21	11.53	12.07	12.80	13.60	12.24	10.23	10.35	10.48	10.61	10.74	10.48	
4	4	8.72	8.97	9.39	9.95	10.58	9.52	10.91	11.04	11.18	11.31	11.45	11.18	
5	5	8.01	8.24	8.62	9.14	9.71	8.75	10.23	10.35	10.48	10.61	10.74	10.48	
6	6	8.01	8.28	8.67	9.20	9.77	8.79	10.23	10.47	10.60	10.74	10.87	10.58	
7	7	8.01	8.10	8.47	8.98	9.53	8.62	10.23	10.35	10.48	10.61	10.74	10.48	
8	8	7.48	7.85	8.48	9.32	10.26	8.68	8.18	8.28	8.38	8.49	8.59	8.38	
9	9	9.54	9.82	10.27	10.89	11.57	10.42	10.83	10.96	11.09	11.23	11.37	11.10	
10	10	9.34	9.61	10.06	10.67	11.33	10.20	10.91	11.04	11.18	11.31	11.45	11.18	
11	11	8.85	9.11	9.53	10.10	10.74	9.67	8.92	9.03	9.14	9.26	9.37	9.15	
12	12	9.34	9.61	10.06	10.67	11.33	10.20	10.23	10.35	10.48	10.61	10.74	10.48	
13	13	9.17	9.44	9.88	10.47	11.13	10.02	10.23	10.35	10.48	10.61	10.74	10.48	
14	14	6.27	6.45	6.75	7.15	7.60	6.84	6.54	6.62	6.71	6.79	6.87	6.71	
15	15	7.54	7.76	8.12	8.61	9.14	8.23	7.88	7.98	8.07	8.17	8.27	8.08	
16	16	11.21	11.53	12.07	12.80	13.60	12.24	9.82	9.94	10.06	10.18	10.31	10.06	
17	17	8.12	8.52	9.21	10.13	11.14	9.42	11.15	11.38	11.61	11.84	12.07	11.61	
18	18	8.57	8.82	9.23	9.79	10.40	9.36	10.23	10.35	10.48	10.61	10.74	10.48	
19	19	9.97	10.47	11.30	12.43	13.68	11.57	10.91	11.04	11.18	11.31	11.45	11.18	
20	20	9.34	9.66	10.12	10.73	11.40	10.25	10.75	10.88	11.01	11.14	11.28	11.01	
21	21	7.91	8.14	8.52	9.03	9.60	8.64	11.15	11.36	11.50	11.64	11.78	11.49	
22	22	9.28	9.54	9.99	10.59	11.25	10.13	10.23	10.60	10.73	10.87	11.00	10.68	
23	23	8.01	8.24	8.62	9.14	9.71	8.75	8.18	8.43	8.53	8.64	8.75	8.51	
24	24	8.24	8.48	8.88	9.41	10.00	9.00	10.23	10.60	10.73	10.87	11.00	10.68	
25	25	8.15	8.56	9.25	10.17	11.19	9.47	8.18	8.58	8.69	8.80	8.91	8.63	
26	26	8.70	8.95	9.36	9.93	10.55	9.50	9.83	10.18	10.31	10.44	10.57	10.27	
27	27	9.53	9.80	10.26	10.88	11.56	10.41	11.71	11.86	12.00	12.15	12.30	12.00	
28	28	11.21	11.53	12.07	12.80	13.60	12.24	10.91	11.11	11.24	11.38	11.52	11.23	
29	29	8.60	8.84	9.26	9.81	10.43	9.39	10.23	10.41	10.54	10.67	10.80	10.53	
30	30	8.97	9.23	9.66	10.24	10.88	9.79	14.32	14.40	14.58	14.76	14.94	14.60	
31	31	9.34	9.61	10.06	10.67	11.33	10.20	10.23	10.35	10.48	10.61	10.74	10.48	
32	32	8.01	8.24	8.62	9.14	9.71	8.75	8.18	8.28	8.38	8.49	8.59	8.38	

33	33	8.01	8.19	8.57	9.09	9.65	8.70	9.82	9.94	10.06	10.18	10.31	10.06
34	34	7.33	7.67	8.03	8.52	9.05	8.12	7.87	8.06	8.16	8.26	8.36	8.14
35	35	7.65	7.86	8.23	8.73	9.27	8.35	8.18	8.43	8.53	8.64	8.75	8.51
36	36	9.34	9.61	10.06	10.67	11.33	10.20	10.23	10.35	10.48	10.61	10.74	10.48
37	37	9.42	9.69	10.14	10.75	11.42	10.28	10.23	10.35	10.48	10.61	10.74	10.48
38	38	8.63	8.87	9.29	9.85	10.46	9.42	8.92	9.03	9.14	9.26	9.37	9.15
39	39	9.34	9.61	10.06	10.67	11.33	10.20	10.91	11.04	11.18	11.31	11.45	11.18
40	40	8.80	9.05	9.47	10.04	10.67	9.61	9.09	9.20	9.31	9.43	9.54	9.31
41	41	9.61	9.89	10.35	10.97	11.66	10.49	9.20	9.31	9.43	9.55	9.66	9.43
42	42	9.44	9.71	10.16	10.77	11.45	10.30	11.38	11.52	11.66	11.80	11.95	11.66
43	44	9.46	9.73	10.19	10.80	11.47	10.33	10.23	10.35	10.48	10.61	10.74	10.48
44	45	9.76	10.04	10.51	11.14	11.84	10.66	9.09	9.20	9.31	9.43	9.54	9.31
45	46	11.21	11.53	12.07	12.80	13.60	12.24	11.69	11.83	11.97	12.12	12.27	11.98
46	47	9.61	9.89	10.35	10.97	11.66	10.49	13.63	13.80	13.97	14.14	14.31	13.97
47	48	10.19	10.48	10.97	11.64	12.36	11.13	12.52	12.67	12.82	12.98	13.14	12.83
48	49	9.85	10.13	10.60	11.24	11.94	10.75	10.76	10.89	11.03	11.16	11.30	11.03
49	50	9.62	9.90	10.36	10.99	11.67	10.51	10.53	10.66	10.79	10.92	11.06	10.79
50	43	6.64	6.97	7.53	8.28	9.11	7.71	11.15	11.38	11.61	11.84	12.07	11.61

	Wheat						Bajra					
	2014	2015	2016	2017	2018	Average	2014	2015	2016	2017	2018	Average
Sum	448.49	462.44	485.75	517.24	551.83	493.14	510.40	518.48	525.13	531.90	538.67	524.90
Average	8.9698	9.2488	9.7150	10.3448	11.0366	9.8628	10.2080	10.3696	10.50266	10.6380	10.7734	10.4980
Std.Devi.	1.13503	1.15613	1.19808	1.26614	1.35242	1.21236	1.44941	1.44727	1.46844	1.4890	1.51179	1.4723
S.D.E.	0.16052	0.1635	0.1694	0.1790	0.19126	0.17145	0.20498	0.20467	0.20767	0.21059	0.21380	0.20822
Variance	1.288	1.337	1.435	1.603	1.829	1.470	2.101	2.095	2.156	2.217	2.286	2.168
Ranges	4.94	5.08	5.32	5.65	6.08	5.4	7.78	7.78	7.87	7.97	8.07	7.89

Cost of production (Year-wise – Commodity-wise) in Haryana (Irrigated Farm)

Sr.	Resp.	WHEAT						BAJRA					
		No.	2014	2015	2016	2017	2018	Average	2014	2015	2016	2017	2018
1	101	9.34	9.61	10.06	10.67	11.33	10.20	11.80	11.95	12.09	12.24	12.39	12.10
2	102	9.34	9.61	10.06	10.67	11.33	10.20	5.81	11.98	12.13	12.28	12.43	12.13
3	103	9.97	10.25	10.71	11.35	12.04	10.86	14.50	14.68	14.86	15.04	15.23	14.86
4	104	9.96	10.25	10.73	11.37	12.08	10.88	14.23	14.41	14.59	14.77	14.95	14.59
5	105	10.18	10.48	10.97	11.63	12.35	11.12	14.54	14.83	15.13	15.43	15.73	15.13
6	106	10.09	10.37	10.86	11.51	12.23	11.01	14.65	14.83	15.01	15.20	15.38	15.01
7	107	9.33	9.59	10.04	10.65	11.31	10.18	12.67	12.82	12.98	13.14	13.30	12.98
8	108	10.16	10.45	10.93	11.59	12.32	11.09	14.20	14.49	14.78	15.07	15.37	14.78
9	109	10.09	10.38	10.86	11.52	12.24	11.02	14.15	14.33	14.50	14.68	14.86	14.50
10	110	9.79	10.07	10.54	11.17	11.87	10.69	13.47	13.63	13.80	13.97	14.14	13.80
11	111	9.73	10.01	10.48	11.11	11.81	10.63	13.82	13.99	14.16	14.34	14.51	14.16
12	112	9.76	10.04	10.51	11.15	11.84	10.66	13.48	13.64	13.81	13.98	14.15	13.81
13	113	9.64	9.91	10.38	11.00	11.69	10.53	11.73	11.87	12.02	12.17	12.31	12.02
14	114	9.97	10.47	11.30	12.43	13.68	11.57	14.14	14.31	14.49	14.67	14.85	14.49
15	115	9.97	10.25	10.73	11.38	12.09	10.88	14.14	14.31	14.49	14.67	14.85	14.49
16	116	9.97	10.19	10.67	11.31	12.01	10.83	14.12	14.29	14.47	14.65	14.83	14.47
17	117	9.97	10.31	10.79	11.44	12.16	10.94	14.23	14.41	14.59	14.77	14.95	14.59
18	118	9.98	10.03	10.50	11.12	11.80	10.69	14.12	14.29	14.47	14.65	14.83	14.47
19	119	9.63	9.91	10.37	11.00	11.69	10.52	12.50	12.65	12.80	12.96	13.12	12.81
20	120	9.64	9.92	10.38	11.01	11.70	10.53	12.85	13.01	13.17	13.33	13.49	13.17

21	121	9.69	9.97	10.44	11.07	11.76	10.59	12.87	13.03	13.19	13.35	13.51	13.19
22	122	9.65	9.92	10.39	11.01	11.70	10.53	12.85	13.01	13.17	13.33	13.49	13.17
23	123	9.96	10.25	10.73	11.37	12.09	10.88	12.71	12.86	13.02	13.18	13.34	13.02
24	124	9.64	9.92	10.38	11.01	11.69	10.53	12.47	12.62	12.78	12.93	13.09	12.78
25	125	9.99	10.27	10.75	11.40	12.12	10.91	14.50	14.68	14.86	15.04	15.23	14.86
26	126	9.97	10.25	10.73	11.38	12.09	10.88	13.47	13.63	13.80	13.97	14.14	13.80
27	127	9.95	10.24	10.71	11.36	12.07	10.87	14.29	14.46	14.64	14.82	15.00	14.64
28	128	9.80	10.29	11.12	12.23	13.45	11.38	14.29	14.46	14.64	14.82	15.00	14.64
29	129	9.80	10.08	10.55	11.19	11.88	10.70	13.40	13.57	13.73	13.90	14.07	13.73
30	130	8.19	8.43	8.82	9.35	9.94	8.95	13.80	13.96	14.14	14.31	14.49	14.14
31	131	9.81	10.09	10.56	11.19	11.89	10.71	13.38	13.55	13.71	13.88	14.05	13.72
32	132	9.80	10.08	10.55	11.19	11.89	10.70	14.06	14.23	14.41	14.59	14.77	14.41
33	133	9.97	10.47	11.30	12.43	13.68	11.57	13.19	13.35	13.52	13.69	13.85	13.52
34	134	9.99	10.49	11.33	12.46	13.71	11.59	14.75	14.93	15.11	15.30	15.48	15.11
35	135	10.17	10.28	10.76	11.41	12.12	10.91	14.75	14.93	15.11	15.30	15.48	15.11
36	136	9.97	10.25	10.73	11.38	12.09	10.88	13.70	13.87	14.04	14.21	14.38	14.04
37	137	10.14	10.25	10.73	11.38	12.09	10.88	13.72	13.88	14.05	14.23	14.40	14.06
38	138	10.37	10.25	10.73	11.38	12.09	10.88	13.70	13.87	14.04	14.21	14.38	14.04
39	139	9.97	10.47	11.30	12.43	13.68	11.57	13.74	13.90	14.07	14.25	14.42	14.08
40	140	10.35	10.41	10.90	11.57	12.29	11.06	14.12	14.29	14.47	14.65	14.82	14.47
41	141	10.45	10.34	10.83	11.49	12.21	10.99	13.72	13.88	14.05	14.23	14.40	14.06
42	142	9.53	9.80	10.26	10.87	11.55	10.40	14.19	14.36	14.54	14.72	14.90	14.54
43	143	9.97	10.25	10.73	11.38	12.09	10.88	13.72	13.88	14.05	14.23	14.40	14.06
44	144	9.45	9.72	10.18	10.80	11.48	10.33	13.72	13.88	14.05	14.23	14.40	14.06
45	145	10.04	10.33	10.81	11.47	12.19	10.97	13.59	13.75	13.92	14.09	14.26	13.92
46	146	9.95	10.24	10.71	11.36	12.07	10.87	14.12	14.29	14.47	14.65	14.83	14.47
47	147	9.97	10.25	10.73	11.38	12.09	10.88	13.74	13.91	14.08	14.25	14.43	14.08
48	148	10.45	10.52	11.02	11.69	12.43	11.17	13.70	13.87	14.04	14.21	14.38	14.04
49	149	9.80	10.08	10.55	11.19	11.88	10.70	13.74	13.91	14.08	14.25	14.43	14.08
50	150	9.80	10.29	11.12	12.23	13.45	11.38	13.74	13.91	14.08	14.25	14.43	14.08

	Wheat						Bajra					
	2004	2005	2006	2007	2008	Average	2004	2005	2006	2007	2008	Average
Sum	493.10	506.58	532.32	567.13	605.33	540.57	676.89	691.44	700.20	709.08	717.92	700.28
Mean	9.8620	10.1316	10.6464	11.3426	12.106	10.8114	13.8288	13.8288	14.04	14.1816	14.3584	14.0056
Stand. Deviation	0.35369	0.34204	0.40728	0.526	0.6797	0.4325	0.75520	0.7552	0.7701	0.78599	0.8024	0.7692
S.D. Error of Mean	.05002	.0483	.05760	0.0744	0.0916	0.0611	0.1068	0.1068	0.1089	0.1116	0.1134	0.10879
Variances	0.125	0.117	0.166	0.277	0.462	0.187	0.570	0.570	0.593	0.618	0.644	0.592
Range	2.26	2.09	2.51	3.11	3.77	2.64	3.06	3.06	3.11	3.26	3.42	3.11

Limitations of Analysis of Farm Cost Accounting

The Survey revealed the following problems / Limitations of Agriculture farms:

- Most farmers being uneducated were unable to organize farming systematically. Lack of knowledge of scientific farming was another obstacle. Farmers lacked management skill and capacity to take proper decisions at proper time. Farmers did not adopt appropriate technique for farming and continued the use of traditional methods of farming.
- Farmers did not keep proper accounts of their investment, input and output. They lacked the knowledge of good quality seeds, pesticides, and fertilizers and as such were not able to get better produce.
- Farmers found it difficult to raise enough finances to arrange fertilizers, seeds, pesticides, hire tractor etc. They borrowed money from moneylenders at high rate of interest. They mortgaged

their crop even before it was ready, in order to get a loan from the moneylender. This increased investment and costs on agricultural activities.

- Frequent power cuts and irregular electricity supply led to difficulties in irrigation and consequent destruction of crop. Crops were sometimes destroyed by natural causes like heat, famine, frostbite etc. Farmers of non-irrigational farms mostly depended on monsoon rain and when the rain was delayed, crops were destroyed. There was no crop insurance cover to save the farmers from loss due to natural calamities.
- Most markets were out of reach for the farmers and it was difficult for them to take their crops were for sale. Despite all the promises for speedy land reforms the implementation was very slow. Communication played a vital role in agriculture. Scientific and technological developments in the field of agriculture were not well supported by communication facilities.

Conclusion

The logical analysis of the aforesaid factors reveals that the factors of production, land and labour are there in sufficient quantum whereas the other factors of production, capital, management and enterprises are not up to mark.

It is therefore, suggested that the agriculture sector be provided with necessary entrepreneurial leadership which is capable of offering necessary capital and efficient management. This suggestion if implemented shall offer reasonable return to the landowner and will turn the agriculture a profitable venture. The same will also help in getting per hectare production comparable with world standards.

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PROSPECTS AND CHALLENGES OF ONLINE EDUCATION

Dr. Dimple Batra*

ABSTRACT

Online education in its various modes has been growing steadily worldwide due to the confluence of new technologies, global adoption of the Internet, and intensifying demand for a workforce trained periodically for the ever-evolving digital economy. Online education is on track to become mainstream by 2025. This article highlights various factors that impact quantity and quality of online education, such factors include industry (business); governments at local, state, and federal levels; country laws; ICT capacity; Internet/mobile technology diffusion; and income and digital divide.

KEYWORDS: *Online Education, Prospects and Challenges.*

Introduction

Developments in information and communication technologies (ICTs) have impacted all sectors of society, including the education sector. In higher education application of ICTs in the form of e-learning is already changing teaching and learning processes. There are many pedagogical and socioeconomic factors that have driven higher learning institutions to adopt e-learning. These include greater information access; greater communication; synchronous learning; increased cooperation and collaboration; cost-effectiveness (e.g. by reaching different students and in greater numbers); and pedagogical improvement through simulations, virtual experiences, and graphic representations. Both trainers and learners can choose more appropriate applications which are flexible in time, in place, personalized, reusable, adapted to specific domains and more cost-efficient (Adomi, 2005; Fisser, 2001; Pelliccione, 2001; Olabode, Marlien& Jacobs et al , 2005; Bruno, 2007). E-learning refers to the use of ICT to enhance and/or support learning in tertiary education. However, this encompasses an ample array of systems, from students using e-mail and accessing course materials online while following a course on campus, to programs delivered entirely online. E-learning can be of different types; a campus-based institution may be offering courses, but using E-learning tied to the Internet or other online network (Lorrain et al, 2007). E-learning is not only about training and instruction but also about learning that is tailored to the individual. Different terminologies have been used to define learning that takes place online (Lorrain et al., 2007; Oye 2011). The early use of computers and ICT were geared to support classroom instructional methods. Gradually, as more and more personal computers became available, the concept and practice of online classes was investigated and explored by some pioneering colleges and universities. E-learning refers to the use of ICTs to enhance and support the teaching and learning process. It allows for efficient transfer of knowledge anywhere and anytime, regardless of subject matter, and opens up a world of learning unavailable in most corners of the world. At the same time e-learning empowers learners with the information technology awareness and skills crucial to succeed in today's global knowledge economy.

The Meaning of Online Education

Online education is more or less a new form of education where students use their home computers through the support of the internet to study. Online education is popular among people who want to work and learn. It is a digital means of transmitting knowledge to the learner and it is readily available to learners with the help of the internet in the form of audio, video and text (Michael, 2009)

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According to Shola 2008 online education is electronically enhanced learning that basically uses the internet for its operation that allows teachers and students interaction and the distribution of class materials. There are so many online education programmes like 100% online education, hybrid education, and massive open online courses (MOOCs).

Benefits of Online Education

Kelsey M. 2019 stated that adjusting to an online learning education could be challenging at first but with constant practice may become beneficial for career advancement and for demonstrating key skills to potential employers. The following are top benefits of online education.

Online education is flexible to run. It is a self-paced learning; improves virtual communication and collaboration; it refines critical thinking and it develops self-motivation. Prospects of Online Education.

In Nigeria, online education has become increasingly popular. This can be perceived even from the introduction of computer based examinations in JAMB (joint Admission Matriculation Board) and the introduction of some educational soft wares that has to do with the use of computers.

Shikha A. 2019 stated that the current trends shows that online education will continue to be on a high demand as people want to work and also learn at the same time, students who find it difficult to gain admission into conventional universities, pandemics, war zones and internally displaced persons. Due to the general high demand the programmes are improving by the day to compete or serve as substitute to the normal traditional classroom. This improvement can be experienced in the area of virtual classroom where practical classes can be taught online. It has also proven to be user friendly to students in terms of students' preparation for competitive examination through the use of webinar, mock test, videos and counseling.

Challenges of Online Education

Online education being the wave of education is already having a fair show but have some factors to contend with especially on the side of teachers and students. Sunil K. 2015 stated major challenges revolve around the teacher who is to design the instruction and students who may lack the technical proficiency of electrical gadgets.

Other challenges include:

Adaptability Struggle. Moving from the traditional classroom or the face to face method of learning can be a lot different. Students resistant to change from the use of pen on paper to computer based teaching may not allow them adapt to the online environment. Students that are used to traditional classroom setting where the chalk board and books are predominantly used may not rapidly accept the idea of the use digital lessons. Not because they do not love gadgets but because the students are not exposed to the system. In our schools, the major problem is unavailability of electrical gadget for learning.

Computer Literacy. In some of our schools where electrical gadgets are available the ability to use them may not be there. Some schools teach ICT courses or subjects but may just be theoretical and students are not exposed to the usage. In high populated schools students may not have a computer to themselves but will have to wait for turns which can discourage students from actively participating in the learning process. In rural areas in the north the lack of power can also paralyze the usage and areas where there are no Internet facilities can also hinder the usage and practice with electrical gadgets. The ICT teachers are handicapped as most lack the technical knowhow to teach practical classes.

Technical Issues. Many students are not provided with the high bandwidth or the strong internet connection that online education requires. In the rural areas where cellular network have not been upgraded to the 4G may experience slow network connection which may result to a catch up with their virtual classmates. The cost of running the internet may be expensive for some student from a very poor background.

The Issue of Trust. Students are used to paying fees, they are used to listening and talking to people they can see face to face. Paying huge sum of money to someone you may not see can also pose a threat to the wide acceptance of the online education. Some families or homes do not have the financial power to run an online programme thereby setting in doubt in terms of any form of online transaction. Some people still have issues with the authenticity of the certificate issued by online programmes.

Diversions of Attention to Other Sites. Secondary school students are adolescents and most time are hyper active and curious. Students who have access to the internet may not actually stay online for learning if not properly monitored. The students may easily divert attention to watch adult content instead of learning. Some sites sometimes pop up to entice young people. The use of electrical gadgets that are internet supported may expose some students to terrible sites. At this level the parents are actually the ones doing the job for their children which may make learning uninteresting to the students. Cost of Running Online Education. In this part of the world the cost of running an online education is high unlike the developed world where WIFI is free and people can access the internet most times for free Online education is more or less a new form of education where students use their home computers through the support of the internet to study. Online education is popular among people who want to work and learn. It is a digital means of transmitting knowledge to the learner and it is readily available to learners with the help of the internet in the form of audio, video and text (Michael, 2009) According to Shola 2008 online education is electronically enhanced learning that basically uses the internet for its operation that allows teachers and students interaction and the distribution of class materials. There are so many online education programs like 100% online education, hybrid education, and massive open online courses (MOOCs).

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- **Cost of Running Online Education.** In this part of the world the cost of running an online education is high unlike the developed world where WIFI is free and people can access the internet most times for free.

Conclusion

The evolution of the technology has drastically changed our lives. In the present time we feel we are nowhere without the gadgets in our hands. Everything has become readily available in the tip of our hands, so as knowledge. The online educational apps are rising in their business. Not only that even the schools of remotest area are with no option other than opting for online apps to continue the process of teaching learning. This paper highlights major prospects, benefits and some challenges of online education.

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FERTILIZERS USE IN INDIAN AGRICULTURE AND ITS IMPACT ON ENVIRONMENT

Ms Komal Bansal*

ABSTRACT

After the independence the major challenge in front of India is to produce sufficient food for growing population. Our first five-year plan also focused on agriculture. For attaining the target of food grain production government focused on green revolution. With the Green revolution, there has been an increase in the consumption of fertilizers in agriculture. Fertilizer is an important input for agriculture production in India. Fertilizers are substances containing chemical elements such as manure a mixture of nitrates that improves the growth of plants. They give nutrition to the crops. Fertilizers are used for increasing yields and growing plants. India ranks second in the world and first among the South Asian Association of Regional Cooperation countries in terms of total fertilizer consumption. The paper throws light upon the impact of the overuse or imbalanced application of fertilizer nutrients on crop productivity. The paper highlights the advantages and disadvantages of fertilizers and role of fertilizers in agriculture sector. The present paper emphasizes the government initiatives and government policies regarding fertilizers. The paper concludes with that sustainability in agriculture can be maintained through rational use of fertilizer use and organic farming.

KEYWORDS: Organic Farming, Sustainable Agriculture, Environment Degradation, Fertilizers.

Introduction

"The secret of rapid agricultural progress in the under developed countries is to be found much more in agricultural extension, in fertilizers, in new seeds, in pesticides and in water supplies than in altering the size of the farm, in introducing machinery, or in getting rid of middle men in the marketing process".W.A.Lewis

The benefits of agriculture have been immense. Before the dawn of agriculture, the hunter gatherer lifestyle supported about 4 million people globally. Modern agriculture now feeds 6,000 million people. Global cereal production has doubled in the past 40 years, mainly from the increased yields resulting from greater inputs of fertilizer, water and pesticides, new crop strains, and other technologies of the 'Green Revolution'. This has increased the global per capita food supply, reducing hunger, improving nutrition and sparing natural ecosystems from conversion to agriculture. By 2050, global population is projected to be 50% larger than at present and global grain demand is projected to double. This doubling will result from a projected 2.4-fold increase in per capita real income and from dietary shifts towards a higher proportion of meat associated with higher income. Further increases in agricultural output are essential for global political and social stability and equity. Doubling food production again, and sustaining food production at this level, is major challenges. Doing so in ways that

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do not compromise environmental integrity and public health is a greater challenge still. There are scientific and policy challenges that must be met to sustain and increase the net societal benefits of intensive agricultural production.

Why do we Need Fertilizers?

The increasing number of population requires ample amount of food. The main obstacle in higher food grain production is pests, loss of soil fertility and lack of nutrients. To sustain the needs of people there should be proper work to vanish these problems. Hence the importance of using fertilizer rises. Fertilizers are used to enhance the growth of plants. Fertilizers are substances containing chemical elements such as manure a mixture of nitrates that improves the growth of plants. They give nutrition to the crops. Fertilizers are used for increasing yields and growing plants. They incorporate mainly three nutrients. Nitrogen acts as growth booster which can be characterized by the green color of plants. Phosphorus substance in fertilizer aids is the faster formation of seed and root development. Potassium nutrient are used for strong stem growth, movement of water in plants, promotion of flowering and fruiting. Three secondary micronutrients are Calcium, Magnesium, Sulphur.

Advantages and Disadvantages of Using Chemical Fertilizers

Advantages

Fertilizer contributes to 50% crop production in India. Proper use of fertilizer enables to solve the problem of starvation. It is the source of from which plants grow and most plant nutrients. The first advantage of fertilizer is that balanced use of fertilizer improves soil health which will increase crop productivity and augments farmer profit. Plants needs almost 17 nutrients from which 3 obtained from water and soil and others from soil. Crop's responsiveness to fertilizer is maximised and environmental impact of fertilizer is reduced when crops are managed for improved nutrient efficiency through Best Management Practices (BMPs) which balance production inputs at the appropriate levels.

Other advantages of fertilizers are:

- Nutrients are soluble and immediately available to the plants; therefore the effect is usually direct and fast.
- The price is lower and more competitive than organic fertilizer, which makes it more acceptable and often applied by users.
- They are quite high in nutrient content; only relatively small amounts are required for crop growth.

Disadvantages

- Over application can result in negative effects such as leaching, pollution of water resources, destruction of microorganisms and friendly insects, crop susceptibility to disease attack, acidification or alkalization of the soil or reduction in soil fertility thus causing irreparable damage to the overall system.
- Oversupply of N leads to softening of plant tissue resulting in plants that are more sensitive to diseases and pests.
- They reduce the colonization of plant roots with mycorrhizae and inhibit symbiotic N fixation by rhizobia due to high N fertilization.
- They enhance the decomposition of soil OM, which leads to degradation of soil structure.
- Nutrients are easily lost from soils through fixation, leaching or gas emission and can lead to reduced fertilizer efficiency.

Role of Fertilizers in Agricultural Sector

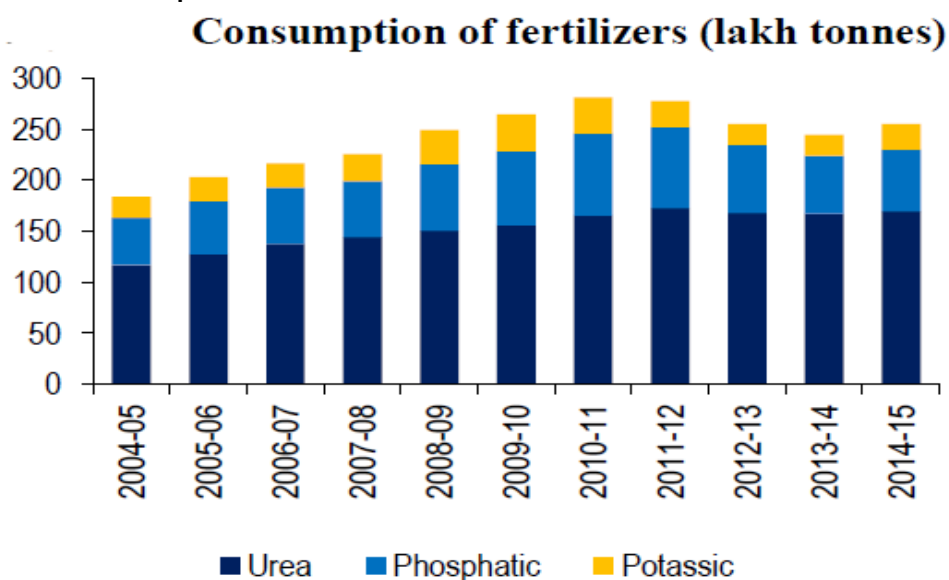
Agriculture productivity is dependent upon various factors like soil properties, climate conditions, irrigation facilities, seed quality and variety, cropping pattern, techniques of farming, prevention from pests but more importantly usage of optimum primary, secondary and micro nutrients. Thus, the role of Government becomes more significant in making available all types of nutrient at affordable price to farmers.

Chemical fertilizers have played an important role in making the country selfreliant in food grain production. The role of Government of India has been significant because government has been consistently pursuing policies conducive to increased availability and consumption of fertilizers at

affordable prices in the country. This is the reason the annual consumption of fertilizers in nutrient terms (N, P&K), has increased from .07 million MT in 1951-52 to more than 28 million MT in 2010-11 and per hectare consumption, has increased from less than 1 Kg in 1951-52 to the level of 135 Kg now.

There is no denying the fact that over the years increased usage of fertilizer increases the agriculture productivity. Current trends in agricultural output, however, depict that the marginal productivity of soil in relation to the application of fertilizers is declining. The comparatively high usage of straight fertilizers (Urea, DAP & MOP) as against the complex fertilizers (NPK) which are considered to be agronomically better including low or non usage of secondary and micro nutrients has also probably contributed towards slowdown in growth of productivity. The declining fertilizer use efficiency is also one of the factors for low productivity.

The Status of Consumption and Production of Fertilizers in India



Sources: Agricultural Statistics at a Glance 2015; PRS.

Consumption of Fertilizers from 1999-2010 (thousand tons of nutrients)

Year	Consumption	Change in the Percentage of Consumption
1999-2000	180.69	
2000-2001	167.02	-7.56
2001-2002	173.59	3.93
2002-2003	160.94	-7.28
2003-2004	167.99	4.38
2004-2005	183.99	9.52
2005-2006	203.4	10.54
2006-2007	216.51	6.44
2007-2008	225.70	4.24
2008-2009	249.09	10.36
2009-2010	264.86	6.33

Source: Economic Survey 2010-11

The above table shows that fertilizer consumption from the year 1999-2000 to 2009-10. There was only two years which shows negative growth rate in fertilizer consumption i.e 2000-01, 2002-03. Another year shows increasing trend of fertilizer consumption in India. There was a very big increase in fertilizer consumption in the year 2005-06, the fertilizer consumption was 203.4 thousand tonnes of nutrients in India. 10.54% growth rate recorded during this year.

- **NPK Fertilizer**

NPK rating explains the amount of nitrogen, phosphorus, and potassium in a fertilizer. The manufacture, sale, and distribution of fertilizers in the country is regulated by the Ministry of Chemicals and Fertilizers, under the Essential Commodities Act, 1955. There are three major types of nutrients used as fertilizers: Nitrogen (N), Phosphatic (P), and Potassic (K). Of these, the pricing of urea is controlled by the government, while P and K fertilizers were decontrolled in 1992, on the recommendation of a Joint Parliamentary Committee. It has been observed that urea is used more than other fertilizers. While the recommended ratio of use of the NPK fertilizers is 4:2:1, this ratio in India is currently at 6.7:2.4:1.6. Overuse of urea is especially observed in the states of Punjab, Haryana and Uttar Pradesh. An imbalanced use of urea may lead to a loss of fertility in the soil over a period of time, affecting productivity. Urea (N) is the most produced (86%), consumed (74%) and imported (52%) fertilizer in the country. The government determines the quantity of fertilizers to be imported based on their domestic availability.¹

- **Fertilizer Subsidy**

The cost of the fertilizer is very high in many countries. Farmers can't afford the price of fertilizers so they will not be able to apply nutrients in their fields. The result was lower crop production and lower food grains. In many developing countries government took step in the form of subsidy to reduce the price of fertilizers. The main objective of the government is to promote agricultural development through wider adoption and economically efficient use of fertilizers. There has been a growing trend of subsidy burden on the Government. Higher amount of subsidy given by government to increase in consumption, increase production, higher input cost, increasing import prices of fertilizers as well as feedstock and intermediaries and more importantly keeping the retail price of the fertilizers at affordable levels. To promote the use of fertilizers by farmers, the central government provides a fertilizer subsidy to the producers of fertilizers.

Improper use of fertilizers and decline in crop productivity

Fertilizers should be properly used in agriculture and application of fertilizers based on scientific testing of soil. Only scientific fertilizers should be used in field to augment missing or deficient nutrient in soil. The inadequate or imbalance nutrient use coupled with neglect of organic manures has caused multicurrent deficiencies in many areas.

The Impact of Fertilizer on Environment

Inadequate use of fertilizer can cause harmful effect on environment. If fertilizers are used with proper scientific soil test then it would enhance agricultural productivity. Indiscriminate use of fertilizers and unawareness of farmers have led to several problems regarding environment and soil health.

Fertilizer Policy

There is increasing the trend of fertilizer consumption in agriculture. This gives benefit to fertilizer industry also. The fertilizers consumption is affected by various factors like irrigation, high yielding variety seeds, size of the farm credit etc. Government provides fertilizer subsidy to provide fertilizers to farmers at remunerative prices. Soil health card schemes and various policies introduced by the government to aware farmer about proper use of fertilizers.

Since Independence government of India has been regulated sale, price and quality of fertilizers. Government of India has passed Fertilizer control order under Essential commodity act in the year 1957. There was no provision of subsidy till 1977. Only potash for which subsidy was paid only for a year in 1977. Maratha committee was constituted to recommend on fertilizer subsidy. Government accepted the recommendations and introduced retention price scheme for nitrogenous fertilizer in 1977. In 1990 when India was facing huge fiscal deficit and there was an impending danger of foreign exchange crisis, Government announced an increase in 40% in the price of fertilizers in July 1991. Some of the fertilizers which were under the subsidy scheme were decontrolled. But in the context of present scenario means for sustained agricultural growth and to promote balanced nutrient growth, it is necessary to provide farmers fertilizers at affordable rate. Urea is the only controlled fertilizer which is sold statutory notified uniform sale price, and decontrolled Phosphate and Potassic Fertilizers are sold at indicative maximum retail prices. Manufacturers of the fertilizers go through the problem of reasonable return on their investment with reference to controlled prices. The solution of this problem is introduced with Fertilizers policies. A scheme which is named as New Pricing scheme for urea units and the concession scheme for decontrolled Phosphatic and Potassic Fertilizers became beneficial for

agricultural point of view. NPS-1 for urea was introduced in 1 April 2003. The objective of this policy was to encourage efficiency parameters of international standards based on the usage of the most efficient feedstock.

Economics of Fertilizer Use

The first thing farmers have to decide that what type of fertilizers have to use and how to apply. They should spend money on fertilizers with the thought that how much they will gain. The primary test is an estimation of the crop production and its value that will result from the application of a given quantity of the plant nutrients. Because law of diminishing returns applicable in agriculture sector of India. The aim of the farmer is to use fertilizer at most profitable and economic optimum rate. Thus economics of fertilizer use helps us to analyze the benefits and losses of fertilizer use. A farmer induced to apply fertilizer if the profits from the fertilizers greater than fertilizer cost. A favorable cost price relationship encourages higher fertilizer usage. An unfavorable relationship restricted greater fertilizer use and result of this seen in the form of lower crop production and lower yields. Reflecting different production cost, import costs, government policies fertilizer prices were vary from country to country.

Conclusion

Fertilizer along with improved seed use is the key driver to agricultural production which in turn drives the attainment of food security. Fertilizers are critical in improving agricultural production and food security through nutrient loss replenishment on farmer's fields. Food security exists when all people at all times have access to sufficient, safe and nutritious food to maintain active healthy life. Thus, the use of agrochemicals is necessary now days. But we should move towards organic farming and adopts techniques that are not harmful for health and increase the production of food grains. India has to put in place a well-defined comprehensive system that enforces stringent policies on balanced fertilizer use, besides facilitating integrated nutrient management with locally available organic manures/crop residues and cultivation of efficient crop genotypes.

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A CRITICAL REVIEW OF ENVIRONMENTAL ACCOUNTING PRACTICES IN BHARAT PETROLEUM CORPORATION LIMITED

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ABSTRACT

The destruction of the territory and thusly of mortal life is definitely however step by step occurring. Researchers have justified that during 1860 to 1960 the extent of carbon dioxide in the air has gone up by 10 and inside coming century becoming by 7 to 8 percent is frightfully expected. The climatic temperature is likewise rising. This is causing destruction like weighty waterfalls; worldwide warming etc. There is a grave entanglement of lowering island under the seawater. These threats and dangers which are gripping the mother earth from all sides have shaken and awakened both the high elite class and also the man on the street. The nature has given to India adequate water, sun over the course of the time, support of thousands of kilometer, huge mineral assets and smart individuals. In the event that we use them cunningly and looked for the record of value it won't require a long investment to trim as a world's super power. That's what it's seen at any rate of cornucopia of ethics and rules, expanded care among singularities and weight from the tree handgrip, the regular issues have not gotten a colossal spot in the yearly reports of destructions. The quality and measure of openness is at this point compelled and routinely it appears in 'boss' report' as opposed to the essential financial outlines. It's thusly, expected to deliver extended care among attention and open all over about the regular products of progress system and help in specifying a compelling procedure for recognizing urgent districts, assessing execution and adjusting obstruction watched. In this paper an endeavor has been made to examine and decipher the ecological record and detailing done by the named organization for example BPCL.

KEYWORDS: *Environmental Accounting, Environmental Reporting, BPCL, Disclosures.*

Introduction

Accounting, as a name among the most important and routinely utilized information gathering textures, need to conform to this situation for giving supportive information. As of now, the Ecological protection through genuine record of the benefits and charges related has transformed into the substance of trade among the representatives world over. By and by, likewise Accounting practices are to be made to oversee condition issues. To accomplish new Record practices, customary famous Record outline, with a thoughtfulness regarding industrialist joined hall of activity can be upgraded by counting outline which assembles information about the affiliation's impact on the normal specialty. Closely resembling reinforcing textures can be utilized for talking with inside and outside mates. Therefore, Accounting and uncovering of normal issues have been snappily ascending as crucial component of "Corporate Accounting and Detailing Practices". In the practical formation of business, regular Record has been, so far, a by and large minor matter of innards charges. It has connected with a reasonable

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organization and organization Record issue how to recognize and get Ecological accuses of a view to restricting them. The postulation and routine with felicitations to Ecological Accounting has taken it beyond the restrictions of this issue throughout the time span. Condition is by and by taken as a middle business issue, as well as raising focal issues of counting proposal, and to be sure of sensitive the foundations of Record and of the proposition of business itself.

Objectives of Research

The justification for the investigation is to portray how regular assistant and assessing is being dealt with in India, what are the obstructions and states of the endeavors in driving biological agent and looking at the level of normal care in oil and gas industry with specific reference to BPCL

Meaning of Environmental Accounting

Environmental Accounting is a design for upgrading business basic administration in affirmation of the growing regular troubles and openings that resisting business second. It does as closely resembling by recognizing concealed or misallocated inside and outer natural charges and relegating them to explicit specifics or techniques. It's a legitimate assurance, assessment and social event of all normal and monetary activities and conditions in the full scale region of the economy. Biological assistant uses Advantage cost Examination, to ensure useful organization of compelled implies for the substance of humanity. Regular agent tracks and supervises quick and abnormal environmental charges upgrades normal basic initiative.

Research Methodology

The period taken for study is 2017-18 to 2021-22. The company selected for the study is Bharat Petroleum Corporation Limited (BPCL). The information has been gathered both from essential and auxiliary sources. The mean, Standard Deviation and Coefficient of Variation is also used for data analysis and interpretation. The Karl Pearson coefficient of correlation is used as when required.

Analysis and Interpretation

BPCL has been investigating the chance of advancing green powers so as to cover the landscape by decreasing contamination and dependence on imported powers. Gigantic parcels of inefficient, infertile and non cultivable land are proposed to be utilized for the development of Jatropha and Karanj shops. During the ongoing time it finished settlement on 3890 hectares which is farther than the states in previous time. On the ecological preservation front upgraded activity of RLNG for supplanting fluid powers has added to decrease of CO₂ and SO₂ resettlements. The Kochi processing plant entered state contamination control grant 2010 greatness grant for exceptional accomplishment. The service of territory and lumbers, Legislature of India has allowed natural simultaneousness for the incorporated processing plant development plan on 22nd November 2012. The approach covers just the organization. BPCL has taken different undertaking with center around worldwide ecological issues. BPCL distinguishes and evaluates certain natural dangers that are material to us through their Wellbeing, security and ecological arrangement

Table 1: Ozone Depleting Substance (MTCO₂)

2017-18	2018-19	2019-20	2020-21	2021-22
154460	12464	173984	14370	13818
Mean	Standard Deviation		Coefficient of Variation	
73819.01	74074.21		100.35	

On analyzing the figures of ozone depleting substances it is found that they are highly fluctuating. The mean of the series is 73819 and standard deviation is greater than the mean which proves it to be highly fluctuating. The coefficient of variation is high in this regard which depicts its variability. The company emits significant amount of ozone depleting substance each year.

Table 2: Treated Effluent Water Discharged mg/L

2017-18	2018-19	2019-20	2020-21	2021-22
89.00	183.61	206.97	180.67	192.42
Mean	Standard Deviation		Coefficient of Variation	
170.53	41.78		24.50	

On analyzing the figures of treated effluent water discharged by the company it is found that they are approximately constant. The mean of the series is 170.53 and standard deviation is within the tolerable limit. The coefficient of variation is not much high in this regard which depicts its consistency. The treated effluent water discharged is used as utility water by the company.

Table 3: Oil Spills (Liters)

2017-18	2018-19	2019-20	2020-21	2021-22
54639	250	222	0	0
Mean	Standard Deviation		Coefficient of Variation	
11022.20	21808.66		197.86	

On analyzing the figures of oil spills it is found that they are highly fluctuating. In later years the company either had no incident of oil spills or not reported the oil spills. The mean of the series is 11022 and standard deviation is 21809 which are much greater than the mean which proves it to be highly fluctuating. The coefficient of variation is very high in this regard which shows that it is highly fluctuating. However it is positive for the society as the company has reduced its oil spills cases to zero in the later years of study.

Table 4: Renewable energy installed in each year MW

	2017-18	2018-19	2019-20	2020-21	2021-22
Solar	0	0	4	6.3	4.26
Wind	5	1	0.3	5.5	0

Solar Energy

Mean	Standard Deviation	Coefficient of Variation
2.91	2.51	86.11

On analyzing the figures of solar energy installation it is found that the company does not take the activity on continuous basis. The mean of the series is 2.91 and standard deviation is 2.51 which are not much greater. The coefficient of variation is normal in this regard.

Wind Energy

Mean	Standard Deviation	Coefficient of Variation
2.36	2.39	101.15

On analyzing the figures of wind energy installation it is found that the company does not take the activity on continuous basis. The mean of the series is 2.36 and standard deviation is 2.39 which are not much greater. The coefficient of variation is normal in this regard.

Table no. 6.5 Reduction in emissions MTCO₂e

2017-18	2018-19	2019-20	2020-21	2021-22
25664	16044	8951	34000	43660
Mean	Standard Deviation		Coefficient of Variation	
25663.82	12370.99		48.20	

On analyzing the figures of reduction in emissions it is found that they are highly fluctuating. There is significant amount of reduction in emissions in 2015-16 but it rose again in 2017-18. The mean of the series is 25664 and standard deviation is much greater which proves it to be highly fluctuating. The coefficient of variation however is low in this regard because variability occurs in one year only. The company is reducing emissions in significant scale.

Table 6: Specific Energy Consumption MBN

2017-18	2018-19	2019-20	2020-21	2021-22
143.08	69.12	152.64	157.57	145.90
Mean	Standard Deviation		Coefficient of Variation	
133.66	32.67		24.44	

On analyzing the figures of specific energy consumption it is found that it is on the increasing trend i.e. the company is increasing its energy consumption. The mean of the series is 143 and standard deviation is 32.67 which suggests that it is not much fluctuating. The coefficient of variation is low in this regard. The company has been using the specific energy to a great extent in its production process.

Table 7: Capital Expenditure on Sustainable development project and savings (In Crores)

Year	Expenditure	Savings
2017-18	6727.75	287.00
2018-19	1442.70	173.94
2019-20	1445.01	872.84
2020-21	24014.28	38.91
2021-22	9.94	62.71

Expenditure

Mean	Standard Deviation	Coefficient of Variation
6727.94	8941.95	132.91

On analyzing the figures of capital expenditure on sustainable development projects it is found that they are highly fluctuating. The company spent around 24000 in 2016-17 but only 10 crores in the succeeding year. This shows lack of policy on the part of company which can be consistently followed. The mean of the series is 6728 and standard deviation is much greater than the mean which proves it to be highly fluctuating. The coefficient of variation is high in this regard.

Savings

Mean	Standard Deviation	Coefficient of Variation
287.08	399.39	139.12

On analyzing the figures of savings from the sustainable development projects is found that they are highly fluctuating. The mean of the series is 287.08 crores and standard deviation is much greater than the mean which proves it to be highly fluctuating. The coefficient of variation is high in this regard.

Correlation	-0.30
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It can be inferred from the above table that there exists a negative correlation between the capital expenditure incurred and the savings generated from the investment projects. It is possible because the savings generated in a year is a total of all savings generated from all projects started before the period of study. It can also be stated that all the projects does not give immediate savings to the company.

Table 8: Wastewater Discharged TKL

2013-14	2014-15	2015-16	2016-17	2017-18
25164	518	7248	1867	27863
Mean	Standard Deviation	Coefficient of Variation		
12532.19	11667.17	93.10		

On analyzing the figures of wastewater discharged it is found that the company has significantly controlled its wastewater discharged however it again rose in the last year. The mean of the series is 12532 and standard deviation is 11667 which suggests that it is not much fluctuating. The coefficient of variation is high which depicts that company is able to control its wastewater discharged in some years to some extent.

Conclusion

On the foundation of investigation of status of consistence with ecological regulations and guidelines it tends to be induced that the organizations are consenting to ecological regulations and guidelines. The ecological regulations and guidelines are bountiful yet certain relaxations were outfitting to the organizations in consistence of the equivalent. BPCL not just reports the natural consumption caused by it yet additionally presents exhaustively the use brought about for every single thing connected with ecological supportability. BPCL has joined with its supportability report the instrument of

its adjudicators for example KPMG The review has made a concise outline of the record guidelines and government rules. The review focused on different natural records that can be ready, calculation of public pay incorporated with ecological information. The organization focused on the business obligation report and manageability report. The disquisition has illuminated the all inclusive statements which are connected with natural record practically equivalent to as carbon credit account, triple undermost line announcing, attractive social obligation assurance etc. BPCL recognizes and surveys understood natural dangers that are material to us through their Wellbeing, security and ecological arrangement. The organization is resolved to lead its tasks in the way viable with the territory and its end is to create mindfulness among public in regards to landscape. The presentation of wellbeing, security and territory strategy of the organization is entirely sought after and driven by the divisions comprised at divisional position. The organization is emphatically hitched to direct business with a territory heart which guarantees economical turn of events. Consistence of natural regulations is covered at the unit position, divisional position and the attractive position. The establishments are persistently moved up to meet future circumstances in quest for most minimal conceivable release. During the time the organization didn't introduced its business obligation report and neither had given any justification for non expansion of the equivalent. The organization is committed for the protected removal of waste. All Seaward and coastal districts of the organization have a gushing treatment shops to deal with the woodlands like wastewater, delivered water, sewage,etc. along these lines decreasing ecological harm while delivering oil painting oil and gas. The over-simplification is still in elaboration stage in India and it might require no less than 5 attempts further to come an impulse.

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A STUDY OF GOVERNMENT SUBSIDIES AND ITS EFFECT ON AGRICULTURE SECTOR IN INDIA

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ABSTRACT

The farmers' lives in India depend heavily on the agricultural subsidies. Every country's agriculture sector depends heavily on agricultural subsidies. The Indian government spends a lot of money on various agricultural subsidies each year to support the expansion of the agricultural industry. In India, there are 169,700 thousand hectares of permanent farmland and arable land combined. For their investigation, the writers only employed secondary data. With the aid of provisions for financing agriculture in five-year plans and the yearly budget, this article primarily focuses on an overview of agricultural subsidies in India. The authors also look at distribution standards and different sorts of agricultural subsidies in India. In India, farm subsidies have decreased in recent years while investments in the sector have increased. to understand the number of people that depend on the agriculture sector and the proportion of rich and developing countries that provide agricultural subsidies.

KEYWORDS: Five Year Plan, Agriculture, Subsidy and Investment, Secondary Data, Carbon Credit.

Introduction

The Indian government is essential to the growth of the agricultural industry. The government's functions are numerous and varied. Self-sufficiency, the development of jobs, assistance to small-scale farmers in adopting cutting-edge inputs and technology, a decrease in price volatility, and an increase in the income of farm households are a few of the factors given for the importance of this function. In order to affect the price and accessibility of farm inputs like credit, fertilizer, seeds, and irrigation water, among other things, this crucial role can take a variety of shapes, including import-export policies and domestic policies like price support programmes, direct payments, and input subsidies. Input subsidies and product price support are the two most often used domestic agricultural support mechanisms. Input subsidies are justified by a number of advantages, including economic, environmental, and social benefits (World Bank 2008). Input subsidies may benefit society economically. Inputs like fertilizers, irrigation water, and energy make up a sizeable portion of agricultural subsidies in India, and fertilizer subsidies have recently drawn a lot of interest from policymakers and scholars. An agricultural subsidy is money the government gives to farmers and agribusinesses to supplement their income, control the flow of agricultural products, and affect the price and availability of those products. A subsidy is a tool of fiscal policy and is frequently seen as the opposite of a tax. A subsidy, which is derived from the Latin term

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"subsidium," literally means "help from behind." The goal of subsidies is to alter demand and supply decisions by driving a wedge between consumer prices and production costs. Cash payments made to producers or consumers are one of the most obvious forms of subsidies. It also comes in a tonne of undetectable forms, though. Therefore, it might be covered up by lower tax obligations, low-interest government loans, or government equity participation. Subsidies are suggested when the government buys products, such as food grains, for a greater cost than the market will bear or charges less than the market will bear.

Review of Literature

For Indian farmers to grow, subsidies are crucial. Through study papers and articles, many people have expressed their opinions on farm subsidies at the national and internal national levels. The author focuses on the rising costs of agricultural subsidies in India in a case study that was published in Joint Learning Event: Supporting Pro-Poor Growth, Policy Instrument, Farm Input Subsidy. In order to help the successful push for the green revolution, India first introduced subsidies on fertilizer, irrigation water, and rural electricity that powered many of the irrigation pumps.

From 1967, India's production of the two most crops, wheat and rice, significantly increased. While studies have shown that subsidies paid for inputs helped to rapidly raise the production of cereals in the early stages of the green revolution, it is less certain that subsidies still help to enhance production after fertilizer use has become more widespread. And in a nation where adult literacy is barely 61%, the expenses of the subsidies have climbed noticeably since the early 1980s, reaching to between 15% and 25% of the government budget. The rise of agricultural production has slowed since the middle of the 1990s, presumably due to a lack of funding for physical infrastructure, research, and extension. The worry is that other public investments have been squeezed out by the cost of the subsidies. Rajwinder Kaur and Dr. Manisha Sharma demonstrate a relationship between subsidies (including fertilisers, energy, and irrigation) provided in zones and zones' productivity in their study article titled "Agricultural Subsidies in India: Boon or Curse." At the country level as well as the zone level, during both pre- and post-liberalization periods, total subsidies have increased in absolute terms, whereas productivity has increased in India as well as the south, west, north, and north-east zones, with the exception of 1996–1997, and has decreased in the east zone from 1996–1997 to 2000–01. In India, subsidies have increased 8.32 times since the post-liberalization period (2006–07) compared to the pre-liberalization period (1990–91), yet productivity has only improved by 1.1 times. When comparing the same time period, zone-level analysis reveals that the west zone has seen the greatest rise in subsidies, by a factor of 11.95, followed by the south zone (8.93), the east zone (7.67), the north zone (7.49), and the north-east zone (6.28 times). Nonetheless, productivity has increased most, 1.90 times, in the south, followed by 1.12 times in the west, 1.11 times in the north, 1.1 times in the east, and 1.10 times in the north-east (1.05 times). In 1990–1991 the south zone received close to three times the overall subsidies and had almost double the productivity; in 2006–2007 it received 3.37 times the subsidies and had nearly twice the productivity of the east zone.

Objectives

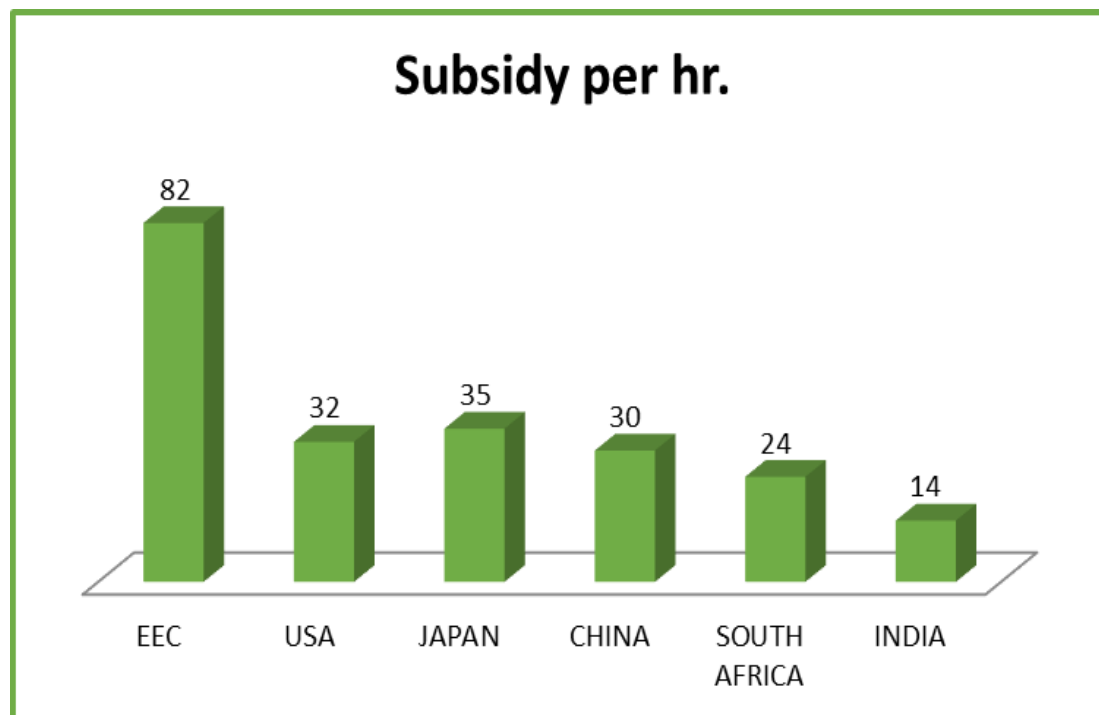
- To find out impact of subsidy in agriculture sector.
- To calculate the percentage of subsidy and total output of agriculture sector .

Data Analysis

**Table 1: Comparison of Subsidies to Agriculture Sector in the World
(Subsidy in US dollar)**

Country	Subsidy per hr.	Subsidy %	Population Depend on Agriculture
EEC	82	37%	8%
USA	32	26%	5%
Japan	35	72%	4%
China	30	34%	24%
South Africa	24	60.67%	18%
India	14	2.33%	60%

Source-Compilations from WTO reports



The accompanying table demonstrates that agricultural subsidies are a worldwide phenomenon and that they are more prevalent in rich countries than in underdeveloped countries. Its percentage is higher in European nations than in India. More so in developing countries than in affluent ones, the agricultural industry is dependent.

Table 1; Agriculture under Five Year Plan and Annual Budget (Rs. In Crore)

Five Year Plan	Total Plan Expenditure	Agriculture and Allied Sector	Irrigation	Total Output %
1 st plan	1960	290	442	37.3
2 nd plan	4672	549	542	23.3
3 rd plan	8577	1089	1019	24.6
4 th plan	15779	2120	2415	28.7
5 th plan	39426	4864	3925	22.3
6 th plan	109291	6623	10929	16.1
7 th plan	218729	12792	16589	13.4
8 th plan	485457	24895	31398	11.6
9 th plan	941041	37239	67875	11.2
10 th plan	152563	58933	103315	10.6
11 th plan	155632	63254	112545	10.9
12 th plan	148421	61235	92355	11.4

Source-Indian Agriculture under the Five-Year Plans, Booklet No. 539, Agricultural Situation in India: ASIS-10

The agriculture industry was in terrible shape prior to the planning period. In general, the farmers owed the villagers' money lenders a lot of money. Their properties were dispersed and modest. They lacked the resources both financial and educational to employ the right tools, high-quality seeds, and chemical fertilizers. They depended on rainfall, with certain exceptions. Land and labor productivity have been falling, and it was at its lowest point ever. Despite the fact that approximately 60% of the people who worked in our country were involved in agriculture, we still needed to import food since we couldn't produce enough food on our own. The entire expenditure for each plan is shown in Table 2, and each plan's expenditure on irrigation and agriculture increased in lockstep.

Conclusion

India has a very large amount of arable land and has made significant recent investments in the sector. Yet, there have been significant decreases in the amount of funding allocated to the agricultural sector in both the five-year plan and the annual budgets in accordance with agricultural subsidies. The entire amount of cultivated agricultural land and investment are rising together with the amount of agricultural subsidies each year. The aforementioned factor is to blame for India's agriculture's slow expansion and poor GDP contribution. Every nation distributes agricultural subsidies; however, India has a very low percentage and a high dependency rate. The Indian government has taken substantial steps to boost the country's agricultural industry, and agriculture subsidies are a key weapon in that effort.

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विकासशील राष्ट्र की अर्थव्यवस्था के लिए जीएसटी का महत्व

आकांक्षा*
डॉ. चन्द्रकांत अवस्थी**

सार

किसी भी राष्ट्र की अर्थव्यवस्था के विकास के लिये धन अहम् है। सरकार इस धन की प्राप्ति टैक्स के रूप में करती है। जीएसटी एक आधुनिक कर है जो वस्तु और सेवाओं की आपूर्ति पर लगाया जाता है। सर्वप्रथम टैक्स चोरी को रोकने के लिये फ्रांस ने 1954 में सबसे पहले जीएसटी लागू किया गया था। अभी करीब 160 देशों में जीएसटी लागू है। ब्राजील, कनाडा जैसे बहुत से देशों में डुयल- जीएसटी है भारत ने भी डुयल-जीएसटी को अपनाया है। भारतीय कर संरचना ब्रिटिश मंडल पर आधारित है। स्वतंत्रता प्राप्ति के बाद इसमें कोई विशेष परिवर्तन नहीं किया परन्तु मिश्रित अर्थव्यवस्था तथा समाजवादी समाज के उद्देश्य से कर संरचना में मौलिक परिवर्तन करने की आवश्यकता है। भारत जैसी विकासशील अर्थव्यवस्था में आर्थिक विकास सर्वोपरि है। कर प्रणाली इस उद्देश्य की पूर्ति में तभी सहायक हो सकती है जब कर प्रणाली द्वारा बचत करने, काम करने एवं विनियोग करने की योग्यता तथा इच्छा पर अनुकूल प्रभाव पड़े। यही नहीं सरकार का उद्देश्य केवल कर से आय प्राप्त करना नहीं होता अपितु नियमन नियंत्रण रखना, आर्थिक स्थिरता के साथ विकास करना, भुगतान संतुलन के असाम्य को दूर करना, मुद्रा प्रसार को रोकना आदि भी होता है क्योंकि सरकार विभिन्न प्रकार के सार्वजनिक कल्याण के कार्य भी करती है। भारत में 1 जुलाई 2017 को जीएसटी एक राष्ट्र, एक बाजार, एक कर की धारणा पर सबसे बड़ा कर सुधार लागू किया गया। भारत जैसे विकासशील राष्ट्र में जीएसटी रोल आउट ने 1.3 अरब नागरिकों को एक बाजार में बदल दिया है। भारत में जीएसटी लागू होने के बाद टैक्स स्लैब को 4 हिस्सों (5,12,18,28 प्रतिशत) में विभाजित किया गया। भारत में जेटली ने कहा था कि अलग-अलग टैक्स स्लैब रखना जरूरी था विकसित देशों में लोग एक हवाई चप्पल और कार पर एक समान कर चुका सकते हैं लेकिन भारत में यह मुमकिन नहीं है, यहाँ लोगों के पास इतना पैसा नहीं है कि वे एक समान टैक्स चुका पाए, इसलिए हमने लोगों की जरूरतों का ध्यान रखते हुए अलग-अलग टैक्स स्लैब तैयार किया है। भारत के जीएसटी और एशिया में उसके समकक्ष देशों के जीएसटी का अध्ययन करे तो दोनों में जमीन आसमान का अंतर देखने को मिलता है। पड़ोसी देश पाकिस्तान में भले ही भारत से पहले 2013 जून में जीएसटी लागू है फिर भी यहाँ जीएसटी के अलावा सर्विस टैक्स व अन्य टैक्स भी लागू है, वहीं ऑस्ट्रेलिया, मलेशिया, न्यूजीलैंड, सिंगापुर, पाकिस्तान और चीन में जीएसटी रेट हम से काफी कम है, यहाँ रेट क्रमशः 10,6,15,7,17,17 फीसदी है जबकि अमेरिका एकलौती ऐसी बड़ी अर्थव्यवस्था है, जहाँ जीएसटी नहीं है यहाँ टैक्स लगाने को लेकर राज्यों को स्वतंत्रता दी गयी है। ऑर्गनाइजेशन ऑफ इकनोमिक्स को-ऑपरेशन एंड डेवलपमेंट (OECD) 0 देशों का संगठन है, ओईसीडी के मुताबिक 21 देशों ने 2009 से 2011 के बीच जीएसटी रेट को बढ़ाकर 17.6 से 19.1 किया है। अपने शोध पत्र में विकासशील राष्ट्र की अर्थव्यवस्था के लिये जीएसटी के महत्व पर प्रकाश डालने का प्रयास किया जा रहा है।

शब्दकोश: जीएसटी, विकासशील अर्थव्यवस्था में आर्थिक विकास, ओईसीडी।

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प्रस्तावना

विकसित अर्थव्यवस्था एवं अर्द्धविकसित अर्थव्यवस्था में संरचनात्मक अन्तर होता है जिसके कारण दोनों प्रकार की अर्थव्यवस्थाओं में एक समान कर प्रणाली लागू नहीं की जा सकती। अर्द्धविकसित एवं विकासशील अर्थव्यवस्था में आर्थिक विकास का उद्देश्य सर्वोपरि होता है। कर प्रणाली इस उद्देश्य की पूर्ति में तभी सहायक हो सकती है जब कर प्रणाली द्वारा बचत करने, काम करने एवं विनियोग करने की योग्यता तथा इच्छा पर अनुकूल प्रभाव पड़े। एक विकासशील राष्ट्र के अर्थव्यवस्था में कर प्रणाली के प्रत्यक्ष एवं अप्रत्यक्ष कार्यों में जीएसटी कर प्रणाली व्यवस्था की विशेषताओं के कार्यों को कैसे सम्मिलित किया जा सकता है।

सरकार विभिन्न प्रकार के सार्वजनिक कल्याण के कार्य भी करती है। वर्तमान समय में सरकार को विभिन्न करों से जो आय मिल रही है वे निम्न प्रकार से हैं—

- Corporation Tax – 34%
- Income Tax – 20%
- Excise Duty – 16%
- Customs – 15%
- Service Tax – 14.5%

अर्थात् सरकार 99.5 प्रतिशत आयकरों से प्राप्त होती है। करों के प्रकारों में प्रत्यक्ष कर महत्वपूर्ण होते हैं। सरकार ने अप्रत्यक्ष कर के रूप में जीएसटी को लाकर कर संरचना में एक महत्वपूर्ण परिवर्तन किया है। भारत में एक समान वस्तु एवं सेवा कर लागू करने वाला संविधान (122वां संशोधन) विधेयक 2014 में राज्य सभा में सर्वसम्मति से पारित कर जीएसटी को एक एकीकृत कर के रूप में लाया गया। जो वस्तु एवं सेवा दोनों पर लगेगा और पूरा देश एकीकृत बाजार में तबदील हो जाएगा और सभी प्रकार के अप्रत्यक्ष कर जीएसटी में समाहित हो जाएंगे।

जीएसटी लागू होने से पहले राज्य व केन्द्र सरकार द्वारा जो अप्रत्यक्ष कर की व्यवस्था थी उसमें कर पर कर लग जाता था जिससे वस्तुओं और सेवाओं की कीमत बढ़ जाती थी परन्तु जीएसटी लागू होने से पूरे देश में एक ही प्रकार का अप्रत्यक्ष कर होगा जिससे व्यापारियों को वस्तुओं और सेवाओं पर चुकाए गए जीएसटी की पूरी क्रेडिट मिल जाएगी और जीएसटी में भुगतान हो जाएगा इससे कर केवल मूल्य संवर्धन पर ही लगेगा और कर पर कर लगाने की व्यवस्था समाप्त होगी जिससे लागत में कमी होगी।

1 जुलाई 2017 में लागू जीएसटी में 1200 से ज्यादा वस्तुओं और सेवाओं के लिए दरें तय की गई हैं कर (Tax) श्रेणियों में कर (Tax) 5 प्रतिशत से 28 प्रतिशत के बीच में है, उसमें से 81 फीसदी चीजें 18 फीसदी कर दर के नीचे आएगी। 01 जुलाई 2017 से जीएसटी की दरें किस प्रकार से किन वस्तुओं एवं सेवाओं पर कैसी हैं— कर दरें

0 प्रतिशत जीएसटी दर

माल (वस्तुएँ) मछली, मीट, मुर्गा, अण्डा, दूध, दही, ताजा फल और सब्जियाँ अदालती कागजात, अखबार मुद्रित पुस्तकें, हथकरघा, नमक, रंग वाली किताबें। कृषि फूलों की खेती, बागवानी रेशम फसलें, घास या बगीचे की सेवाएँ— 1000/-रु० से नीचे की होटल एवं लाज के कमरे, 3 प्रतिशत जीएसटी पर वस्तु सोना।

5 प्रतिशत जीएसटी दर

वस्तुएँ (माल) 1000 से कम के परिधान, डिब्बा बंद खाद्य सामग्री, 5001 से कम के फूड वियर दूध पावड़ा ब्रांडेड पनीर, फ्रीजेज सब्जियाँ, काफी चाय, मसालें, दवाएँ, पिज्जा ब्रेड, का योग से इंसुलियन।

सेवाएँ— हवाई परिवहन, रेलवे छोटे रेस्तरां।

12 प्रतिशत जीएसटी दर

वस्तुएँ (माल)– 1000 से ज्यादा के परिधान फ्रोजेन मीट, उत्पाद, मक्खन, पनीर, घी, डिब्बा बंद मेवा, फलों का जूस, नमकीन, आयुर्वेदिक औषधि सेलूफोन।

सेवाएँ– सरकारी लाटरी, वातानुकूलन रहित होटल के कमरे विजन से हवाई श्रेणी का टिकट, उर्वरक, काम का ठेका।

18 प्रतिशत जीएसटी दर

वस्तुएँ (माल) अधिकतर वस्तु इसी श्रेणी में आती है रिफाइंड भुगर, प्रिजर्ड सब्जियाँ, बालों का तेल, साबुन, हेलमेट, नोटबुक, जेमजैली, सास, सूप, आइसक्रीम, मिनरल वाटर, पेट्रोलियम जेल, फोक, टायलेट पेपर, प्रिन्टर, कम्प्यूटर, सीसीटीवी कैमरे, आर्टिकल।

सेवाएँ– भाराब परोसने वाले वातानुकूलित होटल, दूरसंचार सेवाएं, आई0टी0 सेवाएं, ब्राडेड परिधान, वित्तीय सेवाएँ, पाँच सितारा होटलों के रेस्तरां।

23 प्रतिशत जीएसटी दर

वस्तुएँ (माल) मोटर कार, साइकिल, चाकलेट, पान मसाला, फ्रिज, परफ्यूम डियोडेंट, मेकअप का सामन, पुट्टी, पेंट, टूथपेस्ट, भोविंग क्रीम, लिक्विडसोय, प्लास्टिक समान, रबर, टायर, चमड़े के बैग, मारबल, प्लास्टर, रेजर, वाशिंग मशीन, पियानों, एटीएम।

सेवाएँ– 7500 हजार से ज्यादा के होटल के कमरे सिनेमा, पाँच सितारा होटल।

उपरोक्त करों की दरें विभिन्न वस्तुओं और सेवाओं पर निर्धारित हो जाने से एक विकासशील राष्ट्र के अर्थव्यवस्था के लिए महत्वपूर्ण भूमिका अदा करेगा, जो छोटे व्यापारी जो बिना बिल के सामान का विक्रय कर लेते थे वे भी अब कर चोरी नहीं कर पायेंगे और आम आदमी भी इसे जान सकेगा, जिससे राष्ट्र ही नहीं राज्य के अर्थव्यवस्था भी मजबूत होगा। मुख्य अर्थशास्त्री डी0के0 जोशी का विचार है कि जीएसटी से मुद्रास्फीति की दर कम होगी। पयूचर समूह एवं गोदरेज समूह का मानना है कि सारी लागत पर कर वसूल हो जाएगा और वह विक्रय और निर्माण के स्थान पर माल एवं सेवा की सप्लाई पर लगेगा। सप्लाई राज्य के अंदर होगी तो 'लैज (एसजीएसटी) तथा अंतर्राज्यीय होने पर आईजीएसटी लगेगा। इस प्रकार वस्तु एवं सेवा पर तीन तरह के कर वसूले जायेंगे।

- सीजीएसटी– यानी केन्द्रीय जीएसटी जो केन्द्र सरकार वसूलेगी।
- एसजीएसटी– यानी राज्य जीएसटी जो राज्य सरकार अपने यहाँ होने वाले कारोबार पर वसूलेगी।
- दोनों राज्यों के बीच होने वाले कारोबार पर होगा आईजीएसटी इसे केन्द्र सरकार वसूलेगी और दोनों राज्यों में समान अनुपात में बांट दिया जाएगा।

इस प्रकार जीएसटी लागू होने से सेन्ट्रल ड्यूटी एक्साइज ड्यूटी सर्विस टैक्स, एडिशनल कस्टम ड्यूटी स्पेशल एडिशनल ड्यूटी ऑफ कस्टम वेट, सेल्स टैक्स से स्वतंत्र हो जायेंगे। यानी देश में अप्रत्यक्ष करों के भुगतान में जो दोष जैसे– न्याय संगत नहीं होते, अनिश्चितता बनी रहती है, वेलोच होते हैं, अमितव्ययी होते हैं वितरण में असमानता प्रभावोत्पादक मांग का कम होना इत्यादि सारे दोष दूर हो जाएंगे।

जीएसटी कर की विशेषताएं एवं अर्थव्यवस्था में योगदान

- राज्य एवं केन्द्र के 16 अप्रत्यक्ष करों के स्थान पर एक कर व्यवस्था।
- न्यूनतम मानवीय हस्तक्षेप पारदर्शी, सरल एवं अद्यतन टेक्नोलॉजी का उपयोग।

- पेट्रोलियम पदार्थ डीजल, पेट्रोल, एटीएफ, क्रूड आयल, नेचुरल गैस एवं मानवीय, बिजली उपयोग वाली भाराब, जीएसटी से बाहर है क्योंकि राज्य सरकार के राजस्व के ये स्रोत है। अर्थशास्त्री जी अरुण कुमार का मानना था कि राज्य इससे सहमत नहीं थे।
- जीएसटी की एक बड़ी विशेषता है कि किसी भी एक समान पर इसका दर पूरे देश में एक जैसा होगा अर्थात् देश के किसी भी कोने से वह वस्तु खरीदी जायेगी तो टैक्स एक बराबर होगा।
- निर्माण की बजाय उपभोग पर टैक्स लगेगा। पहले खरीददार को पता नहीं होता था कि किसी उत्पाद पर कितना कर लगा है परन्तु अब पता होगा कि किसी उत्पाद पर कितना टैक्स लगेगा, क्योंकि सरकार ने दर का निर्धारण पहले ही कर दिया है।
- जीएसटी प्रणाली में आखिरी स्टेज पर लगने से पहले जहाँ-जहाँ टैक्स जमा किया गया है, उसको वापिस पाने की भी व्यवस्था है अगर आप अंतिम या वास्तविक उपभोक्ता नहीं है और पहले के किसी स्टेज में जीएसटी जमा किया है तो यह आपके खाते में वापिस हो जाएगा।
- कृषक एवं अनुसूची हीन में वर्णित व्यक्ति जमीन के क्रय विक्रय कर मुक्त वस्तु एवं सेवा दोनों को देने वाले व्यक्ति भी इससे मुक्त रहेगे।
- ई-वाई में कर पार्टनर अभिषेक जैन का मानना है कि आम उपभोक्ता के लिए कई मामलों में कीमतें कम होगी और कई चीजों की कीमतें महंगी होगी। प्रो० दिवाकर का कहना था कि इन्हीं वस्तुओं से सबसे ज्यादा काला धंधा होता है। शिक्षा को इससे बाहर रखा गया। इसी तरह जीडीपी के आंकलन में भी मतभेद है धोखाधड़ी कभी होगी निर्यात पर अच्छा असर होगा।
- प्रफुल्लित अरुण जेटली जी ने एक बात और महत्वपूर्ण यह बताई कि राज्य सरकारों का कर संग्रह अब भी ज्यादा रहेगा क्योंकि भुरुआती पांच वर्षों में किसी भी कमी की भरपाई केन्द्र करेगा।
- बढ़ती हुई आय का पुनर्वितरण करना और अर्थव्यवस्था में आय और धन के वितरण की असमानता को दूर करना।
- विनियोग ढांचे को अनुकूल बनाना।

उपरोक्त जीएसटी क्या है ? जीएसटी के दर में विभिन्नता क्यों है ? जीएसटी की पूरी व्यवस्था कैसी होगी ? व्यापारियों का पंजीकरण होने के बाद रिटर्न की व्यवस्था क्या होगी ? मुद्रा स्फीति की दर पर क्या असर पड़ेगा ? जीडीपी एवं आर्थिक वृद्धि की दर पर क्या असर होगा ? उसे किन वस्तुओं पर कितना कर यानी कितना कारोबारी और कितना उपभोक्ता को देना होगा और भी तमाम सारे सवालों का जबाब भविष्य में देना होगा क्योंकि कोई भी आर्थिक सुधार की प्रक्रिया जब देश में लागू की जाती है तो यह मानकर चलना होता है कि देर सबेर इसके प्रभाव गुणात्मक होंगे। प्रारम्भ में तो देश के सभी प्रमुख व्यक्तियों समूहों एवं रिपोर्टों के आंकलन सामने है कि असर या प्रभाव अच्छा बुरा दोनों हो सकता है। आर्थिक सुधार का आंकलन किया जाए तो पहली पीढ़ी के आर्थिक सुधार 1991 में प्रारम्भ किये गये फिर एक दशक बाद 2000-2001 में दूसरी पीढ़ी के सुधारों के संबंध में वित्तमंत्री यशवंत सिन्हा जी ने कहा था- वृद्धि अपने आप में लक्ष्य नहीं मानी जा सकती। यह रोजगार के विस्तार (विशेषकर गरीब वर्ग तक के) को उन्नत करने का माध्यम है अर्थात् 2000-2001 को दूसरी पीढ़ी के सुधार के नाम से जाना गया। 2000-2001 के बाद एक लक्ष्य को रखा गया।

बागवानी, वानिका, कटाई से जुड़ी मशीन का समान, जूट, काटने से बने हैंड बेग भापिंग बैग पास्ता सिलाई मशीन। 4.18 की जगह 5 प्रतिशत जीएसटी।

क्योंकि नवंबर में टैक्स की दरों में परिवर्तन किया गया आगे भविष्य में बदलाव की संभावना व्यक्त की जा सकती है जो विकासशील राष्ट्र विकास में बदलाव का संकेत दे सकता है।

उपरोक्त विश्लेषण जीएसटी की अवधारणा एवं विशेषताओं तथा 1 जुलाई 2017 की दरों एवं नवंबर में परिवर्तन की गई दरों को बताता है। वास्तव में व्यापारियों एवं उपभोक्ताओं को क्या लाभ, क्या नुकसान होगा इसका आंकलन विकासशील राष्ट्र के विकास भविष्य में होगा।

समय बीत जाने के बाद आर्थिक सुधार के रूप में 2016 में नोटबंदी एवं 2017 में जीएसटी लागू करने को क्या इसे सरो पीढ़ी के सुधार के नाम से जाना जा सकता है, क्योंकि सरकार का मानना है कि स्वतंत्रता प्राप्ति के पश्चात् कर व्यवस्था में सबसे बड़ा सुधार है। आर्थिक सुधार के रूप में मेरे भी विचार से इसके आंकलन की बात करें तो भायद मैं भी अंतिम में कहना चाहूंगा कि जीएसटी कर प्रभाव विकासशील अर्थव्यवस्था के लिए भविष्य में आर्थिक सुधार ही बता सकेगा।

यही नहीं नवम्बर 2017 में जीएसटी कार्यवाही की बैठक में जीएसटी परिषद ने करों की दरों में परिवर्तन किया। 28 प्रतिशत कर केवल अहितकर एवं विलासिता की चीजों पर ही लगेगा उसी बैठक में 200 से अधिक प्रकार की वस्तुओं पर कर की दरें कम कर दी गईं। इसमें 178 वस्तुओं को 28 प्रतिशत कर की श्रेणी से निकालकर 18 प्रतिशत कर दी और 13 प्रकार की वस्तुओं को 18 प्रतिशत की जगह 12 प्रतिशत के दायरे में ला दिया गया और कुछ चीजें 12 प्रतिशत की जगह 5 प्रतिशत और छः चीजें 18 प्रतिशत की जगह 5 प्रतिशत के दायरे में लाई गयीं। इस प्रकार कुल 211 वस्तुओं को जीएसटी में किया गया है, जो बदलाव किये वे निम्न प्रकार से हैं—

- 50 चीजों पर लगेगा 28 प्रतिशत जीएसटी, 228 वस्तुएं की जगह।
- 8 प्रतिशत की जगह 18 प्रतिशत कर
- 18 प्रतिशत की बजाय इन वस्तुओं पर लगेगा 12 फीसदी जीएसटी, प्रिंटिंग इंक, टोपी, कृषि,

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कोविड-19 के आर्थिक प्रभाव : मजदूरों की दशा एवं दिशा बिहार राज्य के विशेष संदर्भ में

अनिल कुमार प्रसाद*
डॉ. चन्द्रकांत अवस्थी**

सार

कोरोना महामारी के कारण देश और राज्य की आर्थिक गतिविधियां और गम्भीर प्रभाव पड़ा है। अर्थव्यवस्था पर पड़े नकारात्मक असर की बजह से न केवल नए रोजगार के अवसर बंद हो गए, बल्कि अनौपचारिक सेक्टर में काम करने वाले बिहार के 14.25 लाख लोगों की नौकरियां भी चली गई हैं। इनमें सबसे अधिक कोचिंग एवं निजी स्कूलों के बंद होने से 6 लाख से अधिक लोग बेरोजगार हुए। नतीजतन बिहार में भी बेरोजगारी दर में बढ़ोत्तरी हुई है। सेन्टर फॉर मॉनिटरिंग इंडियन इकोनॉमी (सीएमआई) के आंकड़े के मुताबिक बिहार में बेरोजगारी की दर अप्रैल और मई 2020 में 46 प्रतिशत पहुंच गई थी। जनवरी 2021 में 10.50 प्रतिशत थी। जून 2021 में भी 10.50 प्रतिशत रिकार्ड की गई। कोरोना संक्रमण के कारण संगठित क्षेत्र में काम करने वाले नौकरी पेशा वालों के लिए आफत बनकर टूटा है। कर्मचारी भविष्य निधि (इपीएम) खाते को बंद करने की स्थिति इसकी वयां कर रही है। कोरोना की पहली लहर से अभी तक संगठित क्षेत्र में काम करने वालों की 59466 पीएफ खाते बंद हुए हैं, जिनमें 46080 पीएफ खाते वित्तीय वर्ष 2021-22 के प्रथम तिमाही में 13386 खाते बंद हुए हैं। ये सभी वे लोग हैं जिनकी नौकरी कोरोना के कारण गई है। इन खातों से 400 करोड़ से अधिक की राशि निकाली गई। पिछले वित्तीय वर्ष में बिहार के नौकरी पेशा लोगों ने 3.58 लाख पीएफ खातों से जरूरत के लिए राशि की निकासी की। इस साल भी यहीं ट्रेंड है।

शब्दकोश: कोविड-19, इंडियन इकोनॉमी, बेरोजगारी, कर्मचारी भविष्य निधि।

प्रस्तावना

बड़ी संख्या में प्रवासी मजदूरों की वापसी और इस दौरान उनकी तकलीफ वास्तव में हो पाने का नतीजा है। आजादी के बाद 1952 में एक विवेकपूर्ण समझ के तहत केन्द्र सरकार ने रेल भाड़ा समान करण नीति बनाई। इसके कारण बिहार, ओडिसा, पश्चिम बंगाल के एक बड़े हिस्से को अनेक खनिज पदार्थ के भारी भंडारों का पूरा लाभ नहीं उठाने दिया गया। जिन राज्यों में लाभ उठाया उन्हीं ने पिछड़े राज्यों से सस्ते मजदूर बुलाकर उन पर दोहरी चोट कर दी, क्योंकि कृषि भी विकसित नहीं हुई। लिहाजा वहां समस्या के चलते 1960-70 में देश के भीतर आंतरिक उपनिवेश बनाने का आरोप लड़ा। इसके बाद भी केन्द्र सरकार की नींद नहीं खुली। लगातार मांग

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के बाद अंततः 1992 में रेल भाड़ा समान करण नीति को समाप्त किया गया, लेकिन तब तक बिहार जैसे गरीब राज्य को एक अनुमान के अनुसार दस लाख करोड़ रू० का नुकसान हो चुका था। 1952 से लेकर 1992 तक इतनी राशि का बिहार में निवेश हुआ होता तो वहां के करीब 30 लाख मजदूरों को रोजी-रोटी के लिए पलायन नहीं करना पड़ता। आजादी के बाद तत्काल वर्षों में कृषि और इससे संबंधित क्षेत्र में केन्द्र ने बिहार में प्रति व्यक्ति करीब 172 रू० खर्च किए जबकि उसी अवधि में पंजाब में 594 रू० खर्च हुए। नांगल परियोजना पर तो भारी खर्च किया गया, लेकिन जब बिहार ने कोशी योजना के लिए पैसे की मांग की तो केन्द्र सरकार ने कहा श्रमदान से बांध बनवाइए। बाद में बिहार के दो सबसे बड़ी कोसी और गंडक सिंचाई परियोजना भ्रष्टाचार के कारण तबाह हो गई। कृषि क्षेत्र में इच्छित उपलब्धि नहीं मिल सकी। उसकी क्षतिपूर्ति के लिए बिहार को विशेष राज्य की दर्जा देने की मांग हुई तो उसे पूरा करने में केन्द्र ने संवैधानिक कठिनाइयां बताई।

देश के जिन राज्यों से प्रवासी मजदूर दूसरे राज्यों में जाने को बाध्य है उनमें बिहार अग्रणी है। नतीजतन बिहार के किसानों को भी मजदूरों की कभी महसूस होती है। इन मजदूरों को दूसरे राज्यों में अपने यहां की अपेक्षा कुछ अधिक मजदूरी मिल जाती है तो इसकी वजह अब राज्यों का सम्पन्न होना है। उनकी सम्पन्नता में अन्य बातों के अलावा रेल भाड़ा समान करण नीति का बड़ा हाथ है। इन नीति के तहत खनिज पदार्थों को एक से दूसरी जगह ले जाने का रेल भाड़ा समान कर दिया था, यानि धनबाद से रांची और रांची से मुंबई। ऐसे में दूसरे प्रदेशों का कोई उद्योगपति बिहार एवं उड़ीसा में उद्योग क्यों लगाता यदि कृषि पर आधारित उद्योगों का माल बिछाया गया होता तो आम किसानों की क्रय शक्ति बढ़ती और उससे उद्योगों का भी विकास अपने ही दौर में काम मिल जाता। विकास नहीं होने के कारण राज्य सरकार के पास आंतरिक संसाधन जुटाने के स्रोत नहीं बढ़ सके। चूंकि केन्द्रीय सहायता राज्य के आंतरिक राजस्व के अनुपात में मिलती है, इसलिए पिछड़े राज्यों को वह भी कम ही मिली। जरूरत के अनुपात में कृषि और उद्योग का विकास नहीं होने के कारण पिछड़े राज्यों को आंतरिक संसाधन जुटाने में भी दिक्कतें आती रही। परिणामस्वरूप ऐसे राज्य मजदूर आपूर्तिकर्ता राज्य बनकर रह गया।

1970 में बिहार का विकास के मामले में देश में नीचे से दूसरे स्थान था। उससे निचले पायदान पर उड़ीसा था। वह भी खनिज पदार्थों की उपलब्धता के मामले में सम्पन्न है। बिहार में कुछ दशकों तक ऐसी भी सरकारें रही जिनकी विकास में कम ही रुचि थी। 2005 के बाद विकास की एक नई शुरुआत हुई। फिर 2015 में मोदी सरकार ने बिहार के लिए सवा लाख रुपये के एक बड़े आर्थिक पैकेज की घोषणा की। उसके तहत काम भी शुरू हो चुका है। इससे राज्य को कुछ राहत मिली है, लेकिन वह पैकेज भी राज्य की कायापलट के लिए ना काफी साबित हो रहा है। कोई व्यक्ति बेहतर भविष्य और अच्छी आय के लिए किसी अन्य राज्य जाए तो बात समझ में आती है पर सिर्फ रोजी-रोटी के लिए अपना राज्य छोड़कर कहीं और जाए तो यह चिंताजनक ही है उस समय विकास का सूचक भी है। कोरोना के इस दौर में यूपी, बिहार, उड़ीसा आदि जो कष्ट का अनुभव है उससे यही लगता है कि बिहार नहीं जाएंगे। इसलिए जहां वे हैं, वही विकास का काम करना पड़ेगा, उन दिनों उत्तर प्रदेश, बिहार, उड़ीसा, छत्तीसगढ़ आदि राज्यों के हजारों मजदूर अपने घर लौट रहे हैं। कुछ घर जाने की जिद में उग्र हो रहे हैं। यदि मौजूदा केन्द्र सरकार देश के सम्यक विकास पर जोर देकर आजादी के बाद के अधूरे काम को पूरा करें तो मजदूरों के सामने कोरोना जैसे संक्रमण की स्थिति में अपने घर को लौटने के लिए ऐसी जिंदगी जदोजहद फिर नहीं आएगी। यह काम राज्य और केन्द्र मिलकर ही कर सकते हैं। दूसरी ओर बिहार कोविड-19 संक्रमण की वजह से लगभग दो महीने सेलड़ रहे हैं। दूसरे राज्य की तुलना में बेवसी थोड़ी अधिक है, क्योंकि बिहार की दस फीसदी से ज्यादा कोविड-19 का प्रभाव पड़ा है। यह आशंका शुरू से थी, इसलिए राज्य सरकार ने प्रवासियों के खाते में कुछ राशि पहले भेजने की व्यवस्था कर दी थी हालांकि जरूरत मंदो को देखते हुए यह ना काफी थी। इस लिए घर लौटने के शोर पर ट्रेन चलवा कर प्रवासी को घर बुलाया जाने लगा। दस लाख से अधिक प्रवासी ट्रेन एवं बसों से बिहार आ चुके हैं। इन्हें क्वारंटाइन सेंटरों पर रखने की व्यवस्था की गयी है। लेकिन सेंटरों पर अव्यवस्था को लेकर प्रश्न उठ रहे हैं। रोज खबरें आती हैं की समय से खाना, नाश्ता,

पानी, सोने की व्यवस्था न के बराबर है जिसके कारण प्रवासी का गुस्सा सामने आ रहे हैं। इससे साफ है कि सरकार करोड़ों रुपये खर्च तो कर रही है परंतु भोजन और सुविधाओं को लेकर शिकायतें कम नहीं हो रही हैं। सेंटर में 14 दिनों तक रखे गए एक व्यक्ति पर सरकार तीन हजार रु0 खर्च कर रही है। इसके अतिरिक्त किराये और अन्य मद में डेढ़ हजार रुपये दिए जाते हैं। एक व्यक्ति पर रोज औसतन 125 खर्च करने का प्रावधान है। इसमें 25 रुपये नाश्ते तथा सौ रुपये दिन-रात भोजन पर खर्च हो रहा है। 14 दिन में एक व्यक्ति के भोजन और नाश्ते पर 1750 रुपये खर्च हो रहा है। कपड़े, बाल्टी, मग एवं बर्तनों के लिए 850 और विछावन मद में 400 रुपये देने हैं। सब जोड़ दे तो कुल राशि तीन हजार रुपये होती है। रेल किराया एक हजार और पांच सौ रुपये अतिरिक्त देना है। इस प्रकार एक व्यक्ति पर 4500 रुपये बड़ी राशि जुटाने की जिम्मेदारी सरकार पर ही है। कर संग्रह ठप है जिससे सारी व्यवस्था हिल चुकी है। संकट की घड़ी में व्यवस्था को सहयोग देने की जरूरत है।

चुनौतियों को अवसर में बदलने की जरूरत

कोरोना संकट के बीच दूसरे प्रदेश से बड़ी संख्या में वापस घर लौट रहे प्रवासी कामगारों के बल पर राज्य की तकदीर बदलने की योजना सराहनीय है। इसके लिए किये जा रहे प्रारम्भिक प्रयास सही के मौजूदा सरकार औद्योगिक तंत्र को और मजबूत बनाना चाहिए यही समय है जब हम चुनौतियों को अवसर में बदल सकते हैं। बिहार के श्रमिक पंजाब, हरियाणा, दिल्ली, महाराष्ट्र, गुजरात सहित कई अन्य प्रदेशों से अब घर लौट आए हैं। योजना बद्ध तरीके से उनके परिश्रम का समुचित लाभ लिया जा सकता है। मुख्यमंत्री के निर्देश पर उद्योग विभाग इस कार्य में युद्धस्तर पर जुटा है। अब तक 88 हजार 293 प्रवासी कामगारों की स्किल मैपिंग की गई है। इन्हें राज्य की नई-पुरानी औद्योगिक यूनिटों से जोड़ने की योजना है। यदि सब कुछ सही दिशा में आगे बढ़ा तो सुखद परिणाम देखने को मिल सकता है। वैसे इन सपनों को साकार करने के लिए उन कारणों की भी तलाश करनी होगी जिसके चलते अब तक यहां औद्योगिक विकास अपेक्षित लक्ष्य प्राप्त करने में पूरी तरह सफल नहीं हो सकता है। यह स्थिति तब है जबकि प्रदेश सरकार की दृष्टि से उद्यमियों को भरपूर प्रोत्साहन के साथ पर्याप्त सुविधा दी जा रही है फिर भी पूंजीपति और उद्योगपति बिहार में आने से कतरा रहे हैं, तो इसके वाजिब कारणों की तलाश होनी चाहिए। इसी क्रम में ग्रामीण स्तर पर छोटे-छोटे उद्योगों को स्थापित करने का भी प्रयास हो ताकि प्रवासी कामगारों को अपने घर के आस-पास मिल सके। साथ ही होटल, सिनेमा, आटो, मोबाइल जैसे क्षेत्र में काम कर चुके प्रवासी कामगारों के लिए विशेष योजनाएं बनानी होंगी। इस संदर्भ में राज्य सरकार की भाषा स्पष्ट है, लेकिन किसी भी सरकार की मूर्त रूप देने का मुख्य दायित्व उसके अधिकारियों व कर्मचारियों का होता है। उनकी तरफ से यदि इस समय ईमानदारी से प्रयास किया गया तो प्रवासी कामगारों के बेहतर भविष्य का निर्माण अर्थव्यवस्था को नई बुलंदी की ओर अग्रसर किया जा सकता है।

- **कोरोना संक्रमण का प्रभाव-** बिहार में असंगठित क्षेत्र में 14.25 लाख रोजगार में संगठित क्षेत्र में 60 हजार नौकरियां गईं।
- **एमएसएमइ-** 1 लाख बेरोजगार हो गए। बिहार में एमएसएमइ क्षेत्र में करीब साढ़े छः लाख लोगों को रोजगार मिला हुआ था। बिहार एंडस्ट्रीज एसोसिएशन के प्रेसिडेंट रामलाल खेतान बताते हैं कि कोरोना के कारण इस सेक्टर के हजारों इकाईयां बन्द हो गईं जो कुछ चल भी रही थीं, वहां मांग कम होने के कारण उत्पादन कम हुआ। इस सेक्टर के एल लाख के करीब लोग बेरोजगार हुए हैं।
- **रियल एस्टेट : 3 लाख काम गया-** बिहार में रोजगार उपलब्ध करवाने में रियल एस्टेट का भी बड़ा योगदान है। इस क्षेत्र में पांच लाख से भी अधिक मजदूर और राजमिस्त्री को काम मिलता है। लेकिन कोरोना की प्रथम लहर और दूसरे लहर ने लाखों मजदूरों को बेरोजगार कर दिया। क्रैडाई बिहार चैप्टर के नागेन्द्र कुमार सिंह बताते हैं कि तीन लाख से अधिक मजदूर और राजमिस्त्री कोरोना के डर से घर चले गए।

- **पर्यटन : 25 हजार से अधिक बेरोजगार हुए—** कोरोना के कारण पिछले डेढ़ लाख से बिहार के सभी पर्यटक स्थल लगभग बंद रहे। पर्यटक भी नहीं आ रहे। बोधगया ट्रेवल एसोसिएशन (बीटीए) के सुरेश सिंह ने बताया कि पर्यटक का कारोबार कोरोना की भेट चढ़ गया है। करीब 25 हजार से अधिक लोग बेरोजगार हो गए हैं।
- **रिटेल सेक्टर : 4 लाख रोजगार गए—** बिहार में कृषि के बाद किसी एक क्षेत्र में सर्वाधिक रोजगार मिलता है, तो वह रिटेल सेक्टर है। दो फेडरेशन ऑफ आल इंडिया ट्रेडर्स के प्रदेश अध्यक्ष अशोक कुमार वर्मा में बताया कि बिहार के तकरीबन 6 लाख से अधिक रिटेल की दुकानें बंद रही। इन दुकानों पर औसतन चार से पांच लोग काम करते हैं। इन दुकानों पर काम करने वाले चार लाख से अधिक लोग बेरोजगार हुए।

कोचिंग व निजी स्कूल: 6 लाख बेकारी

बिहार में निजी और कोचिंग से लाखों लोगों की रोजी रोटी चलती थी। लेकिन कोरोना में एक तरह जहां पांच हजार से अधिक निजी स्कूल बंद हो गए। वहीं मार्च 2020 से ही कोचिंग भी बंद रहे। कोचिंग एसोसिएशन ऑफ बिहार (कैब) के सचिव सुधीर कुमार सिंह ने कहा कि 6 (छह) लाख से अधिक शिक्षक एवं नॉन टीचिंग स्टाफ की नौकरी चली गई यानि बेरोजगार हो गए।

नोट— अप्रैल और मई 2020 में 46 प्रतिशत पहुंच गई थी। बेरोजगारी दर।

मजदूरों की समस्या एवं सुझाव

- **प्रवासियों कामगारों के समक्ष रोजी का संकट—** वैश्विक महामारी कोरोना ने जिस वर्ग को सबसे ज्यादा प्रभावित किया है। वह है प्रवासी मजदूर इनकी पीड़ा दुख-दर्द मानसिक स्थिति इनके सिवाय कोई नहीं समझ सकता। आज से वर्षों पहले जिन्होंने मजदूरी में मातृभूमि को छोड़कर 2 जून की रोटी के लिए अन्य राज्यों को अपना घर बनाया है। आज फिर धरती पर वापस आना इनकी मजबूरी बन गया है। कोविड-19 संक्रमण ने इस प्रवासी मजदूरों को दिया। एक बड़ी भीड़ की शिलशिला शहरों से गांव की ओर चल पड़ा। अनिश्चिता की बादल में घिरे ये जब यह गांव आ रहे हैं। वो उनकी रोजी-रोटी और रोजगार की भरपाई कौन करेगा, कैसे ये अपना और अपने परिवार का भरण पोषण करेंगे। यह एक प्रश्न है जिसे सारे प्रवासी मजदूर अपना सरकार से पूछ रहे हैं। ऐसे स्थिति में लगता है कि बिहार सरकार केन्द्र सरकार से विशेष राज्य का दर्जा देने और स्पेशल आर्थिक पैकेज का मांग केन्द्र सरकार से करे। बिहार से बाहर काम करने वाले ज्यादातर बिहारी ही हैं। इसलिए केन्द्र सरकार की जिम्मेदारी बन जाती है कि वे राज्य सरकार को आर्थिक मदद करे। साथ ही राज्य सरकार को रोजगार सृजन का ऐसा रोड़ मैप बनाना चाहिए जिसमें इन प्रवासी मजदूरों को यही पर रोजगार भी मिले। सरकार को लघु-कुटीर उद्योग, कमल करखाने इत्यादि का अवसर यही उपलब्ध कराना होगा जिससे भविष्य में फिर किसी कोरोना जैसी महामारी के कारण इन्हें इनकी जमीन से बेदखल ना होना पड़े।
- **सभी प्रवासी मजदूरों की रोटी भोजन की बड़ी चुनौती—** महामारी के बीच सबसे बड़ी चुनौती बिहार में बड़ी आबादी में मजदूरों के पेट भरने की है। ऐसे में सरकार के पास बाजार खोलने के अलावा कोई विकल्प ही नहीं बचा हुआ है। रबी की फसल कट गई खरीफ की लगनी है। बरसात शुरू होने वाली है लिहाजा भौगोलिक स्थितियां भी चुनौतियां पेश करेगी। दूसरे रोग डेंगू, मलेरिया, टाइफाइड भी मुंह फैलाएंगे लंबे समय से बंद सभी छोटे-बड़े उद्योग धंधे एवं प्रतिष्ठान को खोलने और रन करने में समय लगेगा। रिवर्स पलायन की व्यवस्था को और बढ़ा रहा है। अभी तक अमीर वर्ग राहत में थे कि उनका खर्च चल जायेगा। भूखें मरने की समस्या गरीबों में है जब महामारी और राज्य की अर्थव्यवस्था दोनों का बुरा स्थिति में हो तो किसी का भी बचना मुश्किल है। एक कहावत है कि पानी कितना भी स्वच्छ हो एक जगह रूक जाए तो उससे गंध आने लगती है बहता पानी ही जीवन दायनी है। वैसे ही आजीविका

कमाओं और खाओं की खाना न तो इंसान की फितरत में रहा है और न बाजार के लिए उचित है। रुपये के प्रवाह ही इसका मूल्य बढ़ाता है। अतः अब सुरक्षा, स्वास्थ्य अर्थव्यवस्था का सारा दारोमदार जनता के हाथ में आ गया है। बिहार की चुनौती को देखें तो कोविड-19 की मार के साथ मजदूरों के लिए स्वास्थ्य, भोजन और रोजगार सीमित संसाधन और अन्य जैसे पड़ोसी राज्यों से निपटना कई गंभीर समस्या है।

- **मजदूरों के लिए संतुलित नीति**— रोजगार के द्वारा खोलने वाला दाव अन्य अर्थशास्त्रियों ने श्रमिकों के लिए ऐसे कानून बनाने का प्रावधान करने के सुझाव दिए जो रोजगार बढ़ाने वाले हो इसके पक्ष में जीएन वाजपेयी ने कई दलीले दी, लेकिन मैं अपने शोध अध्ययन के माध्यम से कहना चाहूंगा कि आजादी के लंबे वर्षों के बाद भी कई क्षेत्रों में मजदूरों-कामगारों का शोषण यथावत शुरू है। उनके हित के लिए जो कानून बनाए जाते हैं वे भी सरकारी फाइलों में सिमट कर रह जाते हैं। मौजूदा कोविड-19 संकट काल में जो प्रवासी मजदूर पलायन कर रहे हैं इसका साक्षात् उदाहरण है कि मुश्किल की घड़ी में कोई भी इनका मददगार नहीं बनता। समय के साथ प्रत्येक कानून और नियमों में बदलाव का होना जरूरी है। परिवर्तन प्रकृति का नियम है लेकिन परिवर्तन ऐसा होना चाहिए जिससे किसी को किसी भी प्रकार की हानि न हो। उनमें सदैव संतुलन भाव का ध्यान रखा जाना चाहिए ताकि किसी भी तबके के हितों पर आघात न हो।

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डिजिटल युग में साइबर चेतना एक दृष्टि

कैलाश चन्द्र मीना*

प्रस्तावना

आधुनिक युग में जैसे-जैसे तकनीक विकास हो रहा है वैसे-वैसे साइबर अपराध भी बढ़ते जा रहे हैं। कभी मोबाइल पर लॉटरी-बोनस का मैसेज भेजकर तो कभी सरकारी योजना के तहत मुफ्त सामान वितरण का लालच देकर साइबर अपराधी लोगों को अपना शिकार बना रहे हैं। सरकारी आंकड़ों में भले ही साइबर अपराध के मामले तीन वर्षों में घटे हों, लेकिन असल में हालात परेशान करने वाले हैं। साइबर अपराध के पिछले 30 माह में ही 4.79 लाख मोबाइल कनेक्शन का इस्तेमाल हुआ। चिंताजनक बात यह है कि शुरुआती 24 माह में तो केवल 79 हजार कनेक्शन पकड़े गए, जबकि मौजूदा वित्तीय वर्ष के 6 माह में ही 4 लाख कनेक्शन बंद करवाए गए हैं। प्रदेश में पिछले पाँच साल में 141.40 करोड़ रुपये की साइबर ठगी हुई है। इसमें से केवल 13.53 करोड़ रुपये की रिकवारी हुई। यह राशि भी उन पीड़ितों को ही मिली, जो जागरूक रहे। अब जरूरत है सावधान रहने की।

केन्द्र और राज्य सरकार की ओर से हमारी मदद करने के लिए तीन दोस्त, पोर्टल व हेल्पलाइन नंबर हैं। यदि हम जागरूक होंगे तो यकीनन साइबर अपराध का शिकार होने से बच पायेंगे।

राजस्थान और हरियाणा का मेवात क्षेत्र साइबर क्राइम का दूसरा बड़ा गढ़ बन गया है। राजस्थान में भरतपुर और अलवर से जुड़ा क्षेत्र शामिल है। पिछले वर्ष ही उत्तराखण्ड के डीजीपी ने राजस्थान सरकार को पत्र लिखकर इस क्षेत्र पर फोकस करने की जरूरत जताई थी। ज्यादातर वित्तीय ठगी में झारखण्ड का जामताड़ा और सेक्सटॉर्शन मामलों में राजस्थान का मेवात क्षेत्र के नाम शामिल है। सरकार ने साइबर ठगी में काम आए जो मोबाइल कनेक्शन बंद करवाए हैं उनमें 80 फीसदी मोबाइल नम्बर मेवात इलाके के हैं। अतः इन क्षेत्रों से जागरूकता बढ़ाई जाये।

साइबर ठगी विभिन्न प्रकार के हैं:-

सरकार से जुड़े कार्य व योजना के नाम पर

साइबर अपराधी सरकार से जुड़े कार्यों या योजनाओं में शामिल कराने के नाम पर ठगी कर रहे हैं। अपराधी लोगों को मैसेज भेजकर बिजली का बिल जमा नहीं कराने पर कनेक्शन काटे जोन की धमकी दे रहे हैं। वहीं चिरंजीवी योजना में शामिल करवाने, निःशुल्क मोबाइल फोन देने के भी मैसेज भेज रहे हैं। लोग झांसे आकर अपनी सारी जानकारी साइबर ठगी को दे रहे हैं। इसका इस्तेमाल कर अपराधी लोगों के बैंक खाते खाली कर रहे हैं।

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जूस जैकिंग से उडा रहे है निजी सूचनाएं

यह एक तरह का साइबर या वायरस अटैक होता है। इसमें अपराधी एयरपोर्ट, रेलवे स्टेशन, बस स्टैण्ड, माल या अन्य किसी सार्वजनिक स्थान पर यूएसबी चार्जिंग पोर्ट के जरिए लोगों के मोबाइल, लैपटॉप में मालवेयर (वायरस) इन्स्टॉल करके पर्सनल डेटा चुरा लेते हैं। लोग मोबाइल को चार्ज करने के लिए पोर्ट पर लगाते हैं और मालवेयर अपने आप फोन में आ जाता है। इस प्रोसेस को जूस जैकिंग कहते हैं।

वीडियों काल कर रहे सेक्सटॉर्शन

साइबर अपराधियों ने इन दिनों सेक्सटॉर्शन को ठगी करने का बड़ा जरिया बना रखा है। अपराधी अज्ञात नंबरों वाट्सअप या अन्य सोशल मीडिया एप पर वीडियो कॉल करते हैं। सामने स्क्रीन पर एक अश्लील में चित्र होता है। स्क्रीन पर एक विंडोकॉल उठाने वाले की भी होती है जिसे साइबर अपराधी रेकार्ड कर लेते हैं और फिर ब्लैकमेलिंग की जाती है।

इन तीन दोस्तों से तत्काल करो शोयर

• जागरूकता दोस्त

साइबर दोस्त के नाम से ट्विटर हैडल है। इसमें साइबर ठगी से बचने के उपाय के साथ जागरूकता के लिए ऑडियो-वीडियो भी बताए जाते हैं। हर दिन क्वीज प्रतियोगिता भी होती है। इसके पीछे मकसद है कि लोग साइबर फॉड के प्रति जागरूक रहे और परिजन-दोस्तों को भी जागरूक करे।

हेल्पलाइन नम्बर 1930

गृहमंत्रालय ने देशभर के लिए एक यही नम्बर जारी किया है। किसी भी तरह का साइबर फॉड होने पर तत्काल हेल्पलाइन नंबर 1930 पर कॉल करे। फाइनेंशियल फ्रॉड के शिकार है तो आप अपना बैंक खाता संख्या, आईएफएससी कोड, पेन नम्बर जरूर याद रखें। यहाँ पहले आपके खाते फ्रीज किये जायेगे।

• पोर्टल-बेवसाइट

<https://cybercrime.gov.in/> वेबपोर्टल है। इसके जरिए भ्सी शिकायत दर्ज करवा सकते हैं। मोबाइल नम्बर अंकित करने के बाद ओटीपी आएगा। ठगी की जानकारी भी दर्ज करने के बाद आपके पास साइबर सेल से कॉल आएगा।

जागरूकता के लिए बढाए कदम, करे उपाय

• साइबर ठगी से बचने हेतु आवश्यक कार्य

- **फिशिंग** – धोखेबाज फोन कॉल के माध्यम से ग्राहक आई डी, एटीएम पिन, ओटीपी, सीवीवी जैसी व्यक्तिगत जानकारी हड़पते हैं। किसी वेबपोर्टल का मिलता जुलता पेज तैयार करते हैं और जैसे ही व्यक्ति पर यूजर-आई डी पासवर्ड अंकित करता है, वह उसके पास पहुँच जाता है।
- **बुलिंग** – इलेक्ट्रॉनिक या संचार उपकरण (कम्प्यूटर, मोबाइल फोन, लैपटॉप आदि) के माध्यम से उत्पीड़न या धमकाना।
- **स्टॉकिंग** – संचार साधनों के जरिए ट्रेकिंग और परेशान करना।
- **गूमिंग** – ऑनलाइन ही यौन क्रिया संबंध बनाने के लिए दबाव डालता है।
- **जॉब फ्रॉड** – बेरोजगार या रोजगार की जरूरत मंद लोगों से पैसे लेकर रोजगार दिलाने का झांसा देना।
- **सेक्सटॉर्शन** – ऑन लाइन ही अश्लीलता परोसना और उसके जरिए फंसाकर ब्लैक मेल करना।
- **सेक्सटिंग** – सेक्सटिंग आमतौर पर मोबाइल द्वारा किया जाता है। सेक्स गतिविधि का डिजिटल फोटो-वीडियो, टेक्स्ट संदेश या ईमेल पर फंसाने का कार्य किया जाता है।

- **स्मिशिंग** – धोखाधड़ी के लिए उपयोग करने वाले फोन नंबर, वेबसाइट पर गलत सामग्री परोसी जाती है लोगों को डाउनलोड करने के लिए लुभाते है।
- **सिम स्वैप** – आपकी आइडी हासिल या कर या फर्जी आईडी बनाकर नई मोबाइल सिम जारी करा ले तर्क देते है कि सिम खराब हो गयी है। जब यह सिम संचालित हो तो बैंक, यूजर आई डी व अन्य जानकारी हासिल कर लेता है।
- **डेबिट-क्रेडिट कार्ड** – किसी के क्रेडिट-डेबिट कार्ड की जानकारी खरीद या पैसा निकालना।
- **पहचान की चोरी** – किसी के डिजिटल हस्ताक्षर, पासवर्ड, वेबसाइट के जरिए वांछित सूचनाएँ प्राप्त करना।
- **रैसमवेयर** – वर्चुअल फिरौती का माध्यम है। आपके कम्प्यूटर, लैपटॉप, मोबाइल, पर डेटा बैंक को चुराना या फिर ऐसी स्टोरेज फाइलों का एक्सटेंशन बदलकर उसे हैक और एन्क्रिप्ट करना।

सन्दर्भ ग्रन्थ सूची

1. राजस्थान समाचार पत्रिकाएँ 2022



वित्तीय विवरणों के आधार पर उद्योगों एवं वित्तीय संस्थान के प्रबन्धन का तुलनात्मक अध्ययन (संदर्भ के रूप में रिलायंस इंडस्ट्रीज लिमिटेड और एस.बी.आई. बैंक)

डॉ हवा भंवर शेखावत*

सार

प्रबन्ध एक ऐसी विधि जिसके द्वारा व्यक्ति अपने सम्पूर्ण जीवन को सही तरीके से और व्यवस्थित रूप से व्यक्त कर सकता है। बिना प्रबन्ध की जीवन एक पशु के समान माना जा सकता है। जिसमें किसी प्रकार की कोई जीवन शैली नहीं होती है। प्रकृति में जीवित सभी मनुष्य अपने जीवन को एक बेहतर प्रबन्ध के साथ जीते हैं अथवा जीने की कोशिश करते हैं। जिस तरह बिना प्रबन्ध के जीवन को जीना सम्भव नहीं हो पता है वैसे ही किसी भी उद्योग अथवा वित्तीय संस्थान को अच्छे से व सही ढंग से चलाने के लिये प्रबन्ध की आवश्यकता होती है। प्रबन्ध एक ऐसी कला है जिसके द्वारा उद्योग अथवा संस्थान अपने लक्ष्य को आसानी से प्राप्त कर सकती हैं। प्रबन्ध किसी कार्य को सही समय पर सही विधि से सही व्यक्तियों के माध्यम से करने की एक कला मानी जाती है। इसके साथ ही प्रबन्ध को एक विज्ञान भी कहा जा सकता है। जिसके अन्तर्गत अन्य व्यक्तियों से कार्य करवाने के लिये सामान्य सिद्धान्तों का उपयोग किया जाता है। क्योंकि विज्ञान ज्ञान की एक क्रमबद्ध शाखा है जिसमें कारण व परिणाम के सम्बन्ध को बताया जाता है। इसकी की तरज पर किसी उद्योग या संस्थान में प्रबन्ध को लागू करने के पीछे कई कारण होते हैं जो किसी न किसी परिणाम को बताते हैं तथा प्रबन्ध के स्वयं के सिद्धान्त व नियम होते हैं जिसके आधार पर वह सही व उचित परिणाम देता है। इसलिये प्रबन्ध को एक विज्ञान भी कहा जाता है। रिलायंस समूह की कई कम्पनियों हैं जो अलग अलग क्षेत्रों में कार्यरत हैं। लेकिन इस समूह में सबसे बड़ी और पहली कम्पनी की बात की जाये तो रिलायंस इंडस्ट्रीज लिमिटेड का नाम आता है। रिलायंस इंडस्ट्रीज लिमिटेड का आरम्भ 8 मई 1973 में महाराष्ट्र में हुआ था तथा इसकी स्थापना धीरूभाई अंबानी के द्वारा की गई थी। धीरूभाई अंबानी के द्वारा इस कम्पनी का प्रबन्ध सही तरीके से किये जाने के कारण आज यह कम्पनी भारत की सबसे बड़ी कम्पनियों में से एक कम्पनी बन गयी है। इस कम्पनी ने केवल पेट्रोलियम उत्पाद में ही अपने आप को न रखकर अन्य क्षेत्रों में भी अपने आप को शामिल किया है। तथा अन्य क्षेत्रों में भी इसका योगदान तारीफ के काबिल है। जिसमें आज के वक्त में भारत को डिजिटल इण्डिया बनाने में सबसे बड़ा योगदान दिया है। वर्तमान में इस कम्पनी के संस्थापक धीरूभाई अंबानी के बड़े पुत्र मुकेश अंबानी हैं। जिन्होंने आपने अथक प्रयासों से कम्पनी को दुनिया की सबसे बड़ी कम्पनियों की सूची में खड़ा कर दिया है। वित्तीय संस्थान वे संस्थान होते हैं जो लोगों को वित्त उपलब्ध करवा कर उनकी वित्त की समस्या को समाप्त करते हैं। जिसके ऐवज में वह उन लोगों से कुछ राशि दिये गये वित्त के अतिरिक्त लेते हैं। जिसे ब्याज कहा जा सकता है। जीवन में किसी न किसी स्थिति में वित्त की आवश्यकता होती ही रहती है। जिसकी पूर्ति व्यक्ति स्वयं नहीं कर पाता है। वित्त की इस कमी को पूरा वित्तीय संस्थानों के द्वारा किया जाता है। वित्तीय

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संस्थानों में कम्पनियाँ तथा बैंक व अन्य कई संस्थान आते हैं। लेकिन ज्यादातर विश्वसनीय वित्तीय संस्थानों में बैंकों का नाम ही आता है। भारत में बैंक के रूप में कई बैंक कार्य कर रहे हैं। जिसमें निजी व सार्वजनिक दोनों तरह के बैंक शामिल हैं। सार्वजनिक बैंक के रूप में एस.बी.आई. बैंक का नाम सबसे आगे माना जा सकता है। एस.बी.आई. बैंक की स्थापना इम्पीरियल बैंक जिसकी स्थापना 1921 में की गई थी को राष्ट्रकृत करके 1 जुलाई 1955 को की गयी थी। इस बैंक के पाँच सहायोगी बैंक भी बनाये गये थे। इस बैंक का मुख्यालय बम्बई में है तथा इस बैंक की शाखायें देश के सभी गांव, शहरों, कस्बों और विदेशों में भी हैं। यह बैंक अपने ग्राहकों को नकद जमा करने, निकालने, आहरण, ऋण देने आदि कई कार्य करती है। इस बैंक में सरकार का भी हिस्सा होने के कारण लोगों का इस पर विश्वास आज तक बना हुआ है। किसी भी उद्योग या संस्थान की तुलना करनी हो तो उसे वित्तीय विवरण का विश्लेषण किया जाता है। क्योंकि वित्तीय विवरण हर एक उद्योग और संस्थान का आईना होता है। जिसमें उसके द्वारा किये गये कार्यों का तथा लेन देना का विवरण होता है। वित्तीय विवरण में मुख्यतः लाभ हानि खाता और स्थिति विवरण को शामिल किया जाता है।

शब्दकोश: रिलायंस इंडस्ट्रीज लिमिटेड, एस.बी.आई बैंक, वित्तीय विवरण।

प्रस्तावना

प्रबन्ध अन्य व्यक्ति से कार्य करवाने की कला है। अधीनस्थ व्यक्ति से कार्य करवाने के लिये प्रबन्धक के द्वारा अपने प्रबन्धकीय कौशल का उपयोग करना ही प्रबन्ध कहा जाता है। इस तरह से संसार के प्रत्येक उद्योग व वित्तीय संस्थान में प्रबन्ध का एक अहम् रूप होता है। जिसके बिना व्यवसाय को सही चलाना असम्भव हो सकता है। इस संदर्भ में अगर भारत जैसे विकासशील देश की बात की जाये तो यहाँ किसी भी उद्योग अथवा संस्थान को चलाने के लिये प्रबन्ध अति आवश्यक कारकों में आ जाता है। क्योंकि एक विकासशील देश में व्यवसाय को प्रारम्भ करना तथा उसे सही रूप से चलाना कहीं न कहीं कठिन होता है। अतः प्रबन्ध एक ऐसे कारक के रूप में उपयोग किया जा सकता है जो व्यवसाय को चलाने में उपयोगी साधन बन सकता है। भारत में कई बड़े बड़े उद्योग और वित्तीय संस्थान मौजूद हैं लेकिन रिलायंस समूह की बात अन्य उद्योगों से अलग की जा सकती है। क्योंकि रिलायंस समूह भारत की सबसे बड़े और विकसित समूह में से एक है और इस समूह न भारत को अन्य देशों में एक अलग पहचान दिलायी है।

प्रबन्ध को समय समय पर कई वैज्ञानिक व विद्वानों ने परिचित किया है। लेकिन आधुनिक प्रबन्ध के जनक के रूप में हेनरी फियोल तथा वैज्ञानिक प्रबन्ध के जनक के रूप में एफ.डब्ल्यू. टेलर का नाम ही लिया जाता है। इसके अलावा भी कई विद्वान जैसे कूपटज और ऑ. डोनेल, पीटर एफ ड्रकर आदि का नाम भी लिया जाता है। इस तरह व्यक्ति, संसार, तथा हर एक उद्योग को बिना प्रबन्ध के चलाना सम्भव नहीं है।

उद्योगों की बात की जाये तो इस संसार में कई बड़े बड़े उद्योग हैं जो अपनी मेहनत तथा अच्छे प्रबन्ध कौशल से सफलता के शिखर पर पहुँच चुके हैं। इसी श्रृंखला में बात करें तो विकासशील भारत में कई उद्योग हैं जो अच्छे प्रबन्ध कौशल से सफलता को प्राप्त किये हुए हैं। इन उद्योगों की सूची में रिलायंस इंडस्ट्रीज का नाम सबसे आगे गिना जाये तो कोई आश्चर्य नहीं होगा।

रिलायंस इंडस्ट्रीज एक ऐसा उद्योग बन गया है जो आज के भारत देश को अन्य देशों की सूची में सबसे आगे ले जा कर खड़ा कर देता है। क्योंकि यह एक बहुआयामी उद्योग बन गया है। इस इंडस्ट्रीज ने अपने बहुरीन प्रबन्ध कौशल और दूर दृष्टि तथा भविष्य के गर्भ को देखते हुए अपने आप को सफलता की उन बुलदियों पर ले जाकर खड़ा किया है जहाँ पर पहुँचने का सपना हर एक उद्योग देखता है। रिलायंस इंडस्ट्रीज लिमिटेड की स्थापना रिलायंस कमर्शियल कॉर्पोरेशन के रूप में की 1960 में की गई थी। यह एक पॉलिस्टर उद्योग के रूप में शुरू की गयी थी। 1966 में इसे रिलायंस टेक्सटाइल्स इंजीनियर्स प्राइवेट लिमिटेड में शामिल कर दिया गया था।

जो की आगे 8 मई 1987 में रिलायंस इंडस्ट्रीज लिमिटेड बन गयी। इस उद्योग के प्रबन्ध संचालक के रूप में मुकेश अंबानी को बनाया गया है तथा अन्य संचालकों के रूप में नीता अंबानी, हितल आर. मेश्वानी, निखिल आर. मेश्वानी आदि कई कौशल व्यक्तियों को शामिल किया गया है। इस तरह अगर किसी उद्योग को सही प्रबन्ध के द्वारा चलाया जाये तो वह सफलता के शिखर को हासिल कर सकता है।

वित्त एक ऐसा तत्व जिसकी आवश्यकता आज के समय में प्रत्येक मनुष्य, उद्योग, संस्था आदि सब को है। बिना वित्त के किसी भी कार्य को कर पाना तकरीबन असम्भव हो गया है। यहा वित्त का आशय उस राशि से है जिसके द्वारा किसी निश्चित कार्य को किया जाना है। वित्त में नकद, चेक, आदि को शामिल किया जा सकता है। वित्त की समस्या को वे संस्थान पूरा करती हैं। जो इस तरह के कार्य में लगी हुई हैं। ऐसे संस्थान जो किसी व्यक्ति विशेष या उद्योग या अन्य किसी उपक्रम को वित्त की सहायता करते हैं। उन्हें वित्तीय संस्थान कहा जाता है। ये संस्थान वित्त की सहायता के बदल में निश्चित दर से राशि वित्त प्राप्त करता से लेते हैं। जिसे ब्याज कहते हैं। पुराने वक्त में इस तरह का कार्य महाजन या साहूकार किया करते थे। लेकिन आज के युग में ये कार्य बैंक, कम्पनियाँ, आदि करते हैं। वित्तीय संस्थान के इस कार्य में जोखिम भी होता है। लेकिन यदि संस्थान द्वारा उचित प्रबन्ध का उपयोग किया जाये तो जोखिम को कम किया जा सकता है। इन संस्थानों में सबसे आगे बैंकों का नाम आता है। भारत के सभी बैंकों में एस.बी.आई. बैंक एक सबसे अच्छी और अग्रिम बैंक मानी जाती है तथा इसमें सरकार का हिस्सा होने के कारण इस पर लोगो का विश्वास भी बना हुआ है।

एस.बी.आई. बैंक की स्थापना इम्पीरियल बैंक जिसकी स्थापना 1921 में की गई थी को राष्ट्रकृत करके 1 जुलाई 1955 को की गयी थी। इसकी शुरुआत 480 ऑफिस के साथ की गयी थी। आजादी के पश्चात प्रथम पंचवर्षीय योजना के तहत बैंको की पहुच शहरों के साथ साथ ग्रामीण क्षेत्रों में भी करने की सिफारिश की गयी थी। जिसके तहत मई 1955 में संसद में एक अधिनियम पारित किया गया और इम्पीरियल बैंक का राष्ट्रीयकरण करके एस.बी.आई. बैंक बना दिया गया। इस बैंक ने अपने प्रबन्ध, कौशल, से वित्त की आवश्यकता को पूर्ण किया।

अध्ययन का उद्देश्य

- वित्तीय विवरण का अध्ययन करके चुने गये संमको के प्रबन्ध का अध्ययन कर अच्छे प्रबन्ध का पता लगाना।
- प्रबन्ध के आधार पर सफलता को प्राप्त करने के बारे में जानना।
- अन्य उद्योगों व वित्तीय संस्थान को प्रबन्ध के द्वारा अपने लक्ष्यों को प्राप्त करने में सहायता देना।

शोध की परिकल्पना

किसी भी शोध कार्य को करने पर एक परिकल्पना को अपनाया जाता है। परिकल्पना के द्वारा शोधकार्ता अपने शोध को बेहतर परिणाम दे पाता है। इसलिए इस शोध पत्र की परिकल्पना में यह माना गया है कि प्रबन्ध के उचित व सही तरीक से उपयोग करने पर किसी भी उद्योग या संस्था सफलता प्राप्त कर सकती है। तथा इसकी सहायता के लिये वित्तीय विवरणों का उपयोग लिया जा रहा है। जिनका तुलनात्मक अध्ययन किया जायेगा।

अनुसंधान क्रियाविधि

इस शोध पत्र के लिये आंकडों का संकलन द्वितीय आंकडों के रूप में किया गया है। इस द्वितीय आंकडें उद्योग व संस्थान के वित्तीय विवरणों से लिये गये हैं। जो कि हर वर्ष जारी किये जाते हैं। ये आंकडे इन उद्योग व संस्थान की साईट से लिये गये हैं।

वित्तीय विवरणों का तुलनात्मक अध्ययन

इस शोध पत्र के शोध के लिये हम रिलायंस इंडस्ट्रीज लिमिटेड तथा एस.बी.आई बैंक के पीछे पांच वर्षों के वित्तीय विवरणों में से उनके लाभों का अध्ययन किया है। जिसका विवरण निम्न प्रकार से हैं।

Table 1: Profit and Loss of Last Five Year (Rs in Crore)

Years	Reliance Industries Ltd	State Bank of India
2017-18	33612	63055.57
2018-19	35163	53130.23
2019-20	35148	51342.32
2020-21	27640	62883.77
2021-22	39084	63546.50

Source: economicstime.indiatime.com

शोध पत्र के लिये चुनी गयी दोनो कम्पनियों के गत पांच वर्षों के लाभ व हानि का विवरण ऊपर सारणी संख्या 1 में दिया गया है। इस सारणी के द्वारा तुलनात्मक अध्ययन करने पर यह पाया गया की दोनो कम्पनियां अपने अपने क्षेत्र में अपने बेहतरीन प्रबन्धक के कारण गत वर्ष से लाभ कमा रही हैं। वर्ष 2017-18 के बाद वर्ष 2018-19 व 2019-20 में रिलायंस इंडस्ट्रीज लिमिटेड के लाभ में वृद्धि हुई है। तथा वर्ष 2020-21 में पिछले वर्षों के मुकाबले लाभ में कमी आयी है। लेकिन इस लाभ की कमी को वर्ष 2021-22 में गत वर्षों के मुकाबले ओर ज्यादा लाभ कमा कर पूरा कर दिया गया है।

इस तरह ही एस.बी.आई. बैंक के लाभों की तुलना करे तो उनमें वर्ष 2017-18 के मुकाबले वर्ष 2018-19 व 2019-20 में कमी आई है। लेकिन यह कमी अगले दो वर्षों 2020-21 व 2021-22 में पूरा करके लाभ को ओर ज्यादा कमा लिया गया है।

निष्कर्ष

शोध पत्र में किये गये कार्य तुलनात्मक अध्ययन के अनुसार यह निष्कर्ष पर पहुच पाते हैं। कि प्रबन्ध के द्वारा यदि कोई उद्योग अपने आप को चलाये तथा उसका सही उपयोग करे तो वह लाभ आवश्यक प्राप्त करता है। इस अध्ययन में रिलायंस इंडस्ट्रीज लिमिटेड के लाभों में प्रथम वर्ष की तुलना में आगमी चतुर्थ वर्ष के लाभों में गिरावट आई है। लेकिन यदि कम्पनी के द्वारा अपने प्रबन्ध कौशल का सही उपयोग करते हुए पंचम वर्ष में पीछे चार वर्ष के लाभों से भी अधिक लाभ प्राप्त किया है। इसी तरह जब एस.बी.आई. बैंक के लाभों की तुलनात्मक जांच की जाये तो प्रथम वर्ष की तुलना में अगले दो वर्षों के लाभों में गिरावट आई है। जिसके लिये बैंक ने अपने प्रबन्ध कौशल को उपयोग किया और लाभों में वृद्धि की है। लेकिन दोनो के लाभों के अध्ययन से यह स्पष्ट हुआ की रिलायंस के लाभों में पीछे वर्षों से अधिक वृद्धि हुई जो की एस.बी.आई. बैंक के लाभों में नहीं है।

इसलिए यह कहा जा सकता है। कि रिलायंस इंडस्ट्रीज लिमिटेड ने अपने प्रबन्ध को ओर अधिक तरीके से सही किया है। लेकिन यदि एस.बी.आई बैंक के द्वारा भी आपने प्रबन्ध को सुधारने पर उसके लाभों में भी वृद्धि हो जायेगी।

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CASHLESS ECONOMY IN INDIA: PRESENT SCENARIO

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ABSTRACT

A cashless transaction in India is an effort to move towards a cashless economy by minimizing the use of physical cash. The main objective of the study is to present the current status of India in usage of digital currency and find the challenges and opportunities which are associated with the cashless transaction in India. Demonetisation announcement (2016) is a revolutionary move towards the cashless economy in India. The research study shows that a cashless economy will help in curbing black money, counterfeit's fake currency, fighting against terrorism, reducing cash related robbery, and helping in improving the economic growth of our country. Major challenges that can hinder the implementation of the policy are cyber fraud, high illiteracy rate, attitude of people, lack of transparency & efficiency in digital payment system. The study recommends that more people should start using digital payment methods which will serve a cashless economy or less cash economy.

KEYWORDS: *Cashless Transaction, Black Money, Economic Growth, Digital Payment, Cashless Economy.*

Introduction

Every economy, which is defined as the legal standard for all forms of material transactions in an economy, depends on cash to function. In order to increase transparency, improve the efficiency of the flow of money through financial channels, and impose checks on black money, cashless transactions are necessary in the economy. The Indian economy has been progressively shifting from being agro based to being dominated by the manufacturing and service sectors. An economy is said to be "cashless" when transactions there are primarily supported by credit cards, debit cards, and prepaid payment instruments rather than by notes, coins, or any other physical form of money. A "cashless economy" is one in which all transactions take place electronically through means such as direct debit, credit cards, debit cards, electronic clearing, and payment systems like India's Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT), and Real-Time Gross Settlement (RTGS).

In the last few years India has taken some eventful steps for the whole nation aimed at the greater good of the economy, such as demonetisation and Aadhaar registration. The foundation of this was always striving for a "cashless society," and we made great strides in that direction during the Covid-19 global health emergency. The pandemic that caused social exclusion, lockdowns, and an extreme reliance on digital payments and media. With the use of ATMs, MICR, debit cards, and credit cards, India has been progressively evolving towards a cashless economy since the late 20th century. These days, you can make payments using mobile wallets, recharge coupons, UPI, NFC, QR codes, etc. Actually, India has done really well in terms of adopting digital technology.

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Since the launch of the government's Digital India programme, the cashless economy in India has grown significantly. Its flagship programme aims to turn India into a knowledge economy and society that is enabled by technology.

Due to the pandemic, the country has adopted digital technology extremely quickly in the last two years. The acceptance and normalisation of digital payment methods have improved with the development of the fintech industry. They are now more secure, precise, subject to stricter governmental regulations, and easy for the average person to use. Financial inclusion is one of the government's top priorities, and as digitalization and financial support are given to the sector, digital awareness is rising. Millions of unbanked and underbanked individuals around the nation are receiving hope from financial inclusion, which is pointing them in the direction of an aspirational life with greater prospects.

All financial transactions that take place in an economy using electronic digital channels are referred to as taking place in a cashless economy. Every commercial transaction now involves electronic payments thanks to technology. A cashless economy's main goal is to cover currently occurring unregistered transactions. The RBI and the Government of India are taking various steps to reduce the use of physical cash in the economy by promoting digital payment devices or modes, including prepaid instruments and cards, in order to reduce the shadow economy, corruption, and to move the nation towards a more transparent system. The purpose of the current study is to define what a cashless system is and to look at the major obstacles Indians must overcome to go cashless. The study demonstrates that the adoption of a cashless economy in India may be considered as a step in the right direction because it offers a number of advantages that aid in the expansion and development of the Indian economy.

Objectives of the Study

- To elucidate the concept of Cashless Economy.
- To explore the challenges in the path of development of Cashless Economy in India.
- To examine the benefits of a cashless economy.
- To make suggestions to face challenges to improve the cashless transaction system in the Indian economy.

Research Methodology

The present study is based on descriptive as well as exploratory in nature. The study has been carried out based on the collection of the available secondary data. Secondary data was collected from different sources such as articles published in different journals, newspapers, published books, periodicals, conference papers, Reports published by NITI Aayog, working papers and websites.

Cashless Economy

In an era of modern technology, the Government of India is trying to put emphasis on digitalization through the development of a cashless economy by replacing the existing physical currency custom. The term 'cashless economy' refers to a financial situation in which no liquid money or paper currency is used by the people for making transactions. Cashless economy is a financial system that aims at reducing, not fully eliminating total physical currency, that is, notes or coins circulating in the economy while encouraging more electronic-based transactions. More specifically, a cashless economy is an economic system where financial transactions are not being done in the terms of currency notes, coins or physical cash money. The transaction in a cashless economy is made with the help of electronic digital channels such as direct debit, credit cards, debit cards, electronic clearing, and payment systems such as Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) in India. It is the economy that runs mostly on plastic or digital money and thus it is the minimal use of cash or money in paper form. In short, it refers to the widespread application of modern technology in the financial system.

The digitalization of traditional payment methods is a revolutionary development of banking industries, Internet services and mobile industries, which provides more economic freedom to people. It creates an opportunity to establish new technologies and developments worldwide, resulting in economic growth of the country. Digital payment is the heart of a cashless economy. Digital payment is a method of transactions in which the payment is carried out using different types of digital modes. Transaction in digital payments is completed online. Digital payment occurs when products are purchased through the use of various electronic mediums. There is no use of cash or convenient methods in this type of

payment method. It is also called electronic payment. Digital payments create economic freedom for business transactions of their users anywhere in the world without taking much time. Economic freedom allows people to trade across the world. They can expand their business globally by transfer or accept payments with safe and secure transactions in just a few hours around the world and it reduces corruption and bribery.

Methods of Cashless Transactions

With a vision to transform India into a digitally empowered economy, Digital India programme is an important programme of the Government of India. 'Faceless, Paperless, Cashless' is the prime motto of Digital India. As part of promoting cashless transactions systems and converting India into a cashless economy, various methods of digital payments are available. They are as follows-

- **Banking Cards (Debit/Credit)**

One of the most widely used methods for cashless payment is banking cards issued by the bank such as debit card and credit card, which are used to withdraw money from ATMs and to make online payments. Debit and credit cards offer consumers more security, convenience, and control than any other payment method. Banking cards are secured by a four-digit pin, and whenever we make an online transaction, we are required to enter the pin and OTP, which is sent to the registered mobile number.

- **Internet Banking**

Internet banking is also known as online banking, e-banking or virtual banking, which does not involve any wallet and is the easiest method of online transfer of funds from one bank account to another bank account, credit card, or a third party. It is an electronic payment system that enables customers of a bank or other financial institution to carry out a range of financial transactions through national electronic funds transfer (NEFT), real-time gross settlement (RTGS) or immediate payment service (IMPS), all of which come at a nominal transaction cost.

- **Mobile Banking**

Another integral component of cashless payment is Mobile banking, in which service is provided by a bank or other financial institution that allows its customers to carry out any kind of financial transactions using a mobile device such as a mobile phone or tablet. In mobile banking, software is usually called an App, provided by the banks or financial institutions instead of using the card to make purchases. Most of the banks have their mobile banking App and some private companies provide such services for example - Paytm, Free charge, Airtel money, Jio money, SBI buddy, its cash, citrus pay, Vodafone m-Pesa, axis bank lime, ICICI pockets etc.

- **E-Wallets**

E-wallet stands for Electronic Wallet, which is another cashless payment mode available for people. E-wallet can be used for making any transactions in purchase of products or services. Both customer and merchant require a smartphone with active internet connection in order to use E-wallets. There are a number of examples of E-wallet such as PayPal, Payoneer, Transferwise, Shriril, PayZa etc. After registering for E-wallet we require to link our credit card or debit card with your E-wallet ID. E-wallet can be used for fund transfer from one account to another account or online shopping. It is one of the simplest cashless methods.

- **Unified Payments Interface (UPI)**

Major component of cashless payment is Unified Payments Interface (UPI), which is launched by NPCI to facilitate instant fund transfer between multiple banks via mobile phones. It is built over the immediate payment service (IMPS) for fund transfer using virtual payment address, account number with IFSC, mobile number with mobile money identifier. Each bank provides its own UPI App. A mobile banking personal identification number is required to confirm each transaction. The few examples of UPI Apps are SBI Pay, ICICI Pocket, Axis Pay UPI App, Union Bank UPI App, PNB UPI and PhonePe etc.

- **Aadhaar Enabled Payment System (AEPS)**

Newly developed another cashless payment is Aadhaar Enabled Payment System (AEPS). It is one of the better and transparent cashless payment methods. AEPS is like Micro ATM, using the Aadhaar authentication. It requires a smartphone and a finger-print scanner for making transactions. It is compulsory to link your Aadhaar card number to your bank account in order to use this facility. AEPS can be used for making transaction like Aadhaar to Aadhaar fund transfer, Cash withdrawal, Cash deposit etc.

Benefits of Cashless Economy

- **Transparency and Accountability**

The development of a cashless system curbs the parallel shadow economy (black economy) which runs majorly on a cash basis. Cashless transactions are track-able and more transparent than that of physical transactions. Electronic transactions always leave a digital proof beneficial for both the payers and the receivers and hence make the system much more transparent and compliant. Cashless systems speed up the settlement of transactions both locally and internationally without taking much time.

- **Raising Trends of E-Commerce**

The E-Commerce market has got a new direction after the introduction of the concept of cashless economy in India as it has grown from \$ 4.4 billion in 2010 to around \$16 billion in 2015 and this further is expected to hit by \$76 billion by 2021. Number of buyers online has increased to 90 million over the last three years. There is raising the trends of online purchasing backed by many forces such as strong value proposition offered by online merchants, proliferating payment platform, strengthening delivery channels, home delivery etc. The increasing expansion of E-commerce has made immense contributions in scaling up 'Digital India'.

- **Increased Tax Collection**

Another major benefit of cashless system in India is that the tax evasion has drastically fallen over the last few years as the payments made through digital means are useful to track and thereby it becomes easier for the government agencies to keep track of the spending and bring more people in the tax fold who were earlier not paying taxes despite having large incomes.

- **Technological Innovation in Indian Banking**

The application of digital technology has paved the way for universal availability of banking services to all since the overcrowded bank branches, need of 24x7 banking facilities with ease and convenience, increasing urbanization, organized retailing, raising education levels, raising income level, changing lifestyle of customers have forced banks to develop technological infrastructure for its customers. Now banks are inclined to cater digital banking facilities at various levels to customers. Banks in India are currently devoting about 15percent of their spending on development of technological infrastructure.

- **Employment Opportunities**

The cashless economy paves way for the generation of new employment opportunities in India as internet penetration is continuously rising in the last three years. As per a report published by Internet & Mobile Association of India and market research firm IMRB, mobile internet users reached to 420 million by June 2017 and the proportion of data component rose from 45percent to 65percent. With in a short period of five years. The demand for smart phones has drastically increased over the last few years. An increase in such demand creates immense employment opportunities in digital technology markets.

Challenges of Cashless Policy in India

- **Digital Literacy**

India is a rural dominated country where the illiteracy rate is not so high especially in rural areas. Digital literacy is just 10 percent in India. More than half of the country's population still does not know how to use a computer. There are still many rural and urban areas in India where access to high speed networks is very difficult. Apart from this, everyone in the country is not able to access Internet facilities because of its high cost. We cannot expect the transformation of the Indian economy from a traditional branch based model to a virtually exist cashless economy in the absence of digital literacy.

- **Unorganized Economy**

Indian economy is predominantly indigenous economy where more than 50 percent of population is engaged with agricultural and allied activities, whereas out of crop production workforce constitutes 75 percent and 69 percent in rural and urban areas respectively, as per NSS 68th round data in 2017-18. As per World Bank report, bank account penetration was just 35 percent in 2011 which rose to 53 percent in 2014. With an objective to bring a larger part of the country's population under banking facilities, the Government of India launched Pradhan Mantri Jan Dhan Yojna in August 2014.

- **Cyber Security Issues**

Another mounting challenge in the development of cashless policy in India is cyber security issues. Digital transactions confront many issues such as the risk of online fraud, leakage of confidential information, cyber-crimes, malware and virus attacks etc. This is one of the biggest concerns to deal with in order to popularize digital payments in countries like India where digital literacy is very low.

- **Poor Banking Infrastructure**

Banks are the backbone of a cashless economy as they create the basis of digital payment systems. However, the banking infrastructure of the country for creating the basis of a cashless economy is not enough to match the demand. The government report on financial inclusion "Overview and progress of financial inclusion" states that as per the Census 2011 the penetration of banking services among households is just 58.7 percent. It would be very difficult to engage people on a digital platform due to the high unbanked population. As per RBI report as of August 2016, there is one bank branch per 10,000 people and one ATM per 5000 people.

- **Lack of Financial Literacy**

Financial Literacy is one of the important components for the development of a cashless system. However, India though being home to 17.5 percent of the world's population, nearly 76 percent of the adult population does not understand even the basic financial concepts and consequently this extremely large chunk of populace remain on the sidelines of the government's drive to go digital. This is one of the biggest hindrances in promoting the cashless system in the Indian economy.

Suggestions

Looking at the overall scenario of establishing the cashless economy, it is beneficial in the present system. In an era of modern technology, a cashless economy is the need of the hour. It has become not only important but also necessary for the country to go cashless for the systematic development in the economy.

- Equitable improvement of infrastructural facilities must be made for bringing in effective changes and thus decreasing the disparity in the development of rural and urban regions.
- Mere launching of schemes and campaigns regarding cashless does not seem to be worthwhile. To make these schemes more impactful, some sort of marketing tools like exhibitions and camps in rural areas should be set-up to make these schemes fruitful.
- Eliminating all sorts of extra charges, online transactions should be made as cheap as possible so that more people switch from cash based to cashless economy.
- Adequate security mechanisms must be put in place to safeguard the interest of consumers against dubious and fraudulent practices of fraudsters, which is one of the mounting challenges in the development of cashless policy in India.
- Financial Literacy is one of the important components for the development of a cashless system. We must look at the expansion of financial literacy in order to advance the concept of a cashless economy.

Conclusion

Cashless transaction is a system which allows individuals to purchase goods or services without the exchange of anything tangible. Greater application of digital payments will save a lot as it will help in bringing down the cost of cash in India. The development of a cashless economy would lead to transparency, curb corruption and lead to convenience for economic growth. The roadmap towards creating an environment of secure and a user-friendly digital payments infrastructure for India has lots of potential to immensely increase the financial inclusion of the people and the development ladder that is perhaps one of the most important reasons that the government must vigorously work towards promoting and developing a cashless economy. Cashless economy in India can be achieved by the adoption of proper methods of digital payments channels, which requires new safe and secured financial policies, centralised administrative control, regular monetary attention on the bankers, government agencies and other private service. Moreover, in order to scale up the development of the cashless economy in India, it demands safe and secured services like immediate certification of payments, clear statement of their accounts, no hidden charges, full control on money, shortening the process of transaction by fulfilling mandatory information. The transformation of rural areas is the biggest challenge in front of the Indian

economy. The government must take necessary steps to pave the way for its transformation in the long run from traditional branch based model to technologically driven cashless economy in order to bring transparency, flexibility, efficiency, convenient, customer friendly banking facilities in India.

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MERCHANT BANKER IN INDIA: A CRITICAL EVALUATION

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ABSTRACT

Merchant banking by its dictionary meaning refers to activities related to underwriting commercial securities and advisory services accepted by an association, called Merchant bankers principally it's such a conception which has no where defined formally and which shows its actuality on the base of the magnitude of functions. The range of functions or services rendered by a Merchant banker is relatively large. A Merchant banker behaves like a matchmaker in capital market. It channelizes the finances from investors, who want to supply, to the commercial houses who are indigent sections of finances. Further it's designated as commercial doctor who diagnoses the commercial units according to their demand by its advisory services. Although Merchant Banking exertion was steered by two decades ago, the need of technical MB services was felt in India with it was only 1992 after the conformation of Securities and Exchange Board of India that it's defined and a set of rules of and regulations governing it are in place. It's to be emphasized that bare rules and regulations aren't enough to evolve and nurture sound traditions and practices in Merchant banking and to make and vibrant capital market. The quality of the systems that are proposed to be financed by capital issues should be impeccable because it's the primary market that holds the key to rapid capital conformation, growth in artificial product and exports. The securities vended to the public should represent genuine claims on future cash overflows and feasible means. Merchant bankers in India have social responsibility to help make an artificial structure, technologically second to none in the world and financially feasible. It's clear that, Merchant Banking in India will play a veritably important part in the Indian economy. There has been a tremendous change in the fiscal environment after 1990, due to globalization and liberalization processes taking place in India. Hence, there's a need for a scientific study to critically examine the emergence and growth of Merchant Bankers, their performance and their future which this study aims at. The study will cover the entire Indian scene.

KEYWORDS: Capital, Performance, Merchant, Liberalization, Economy, Securities, Industrial, Structure.

Introduction

Merchant banks can play largely significant part in marshaling finances of savers to investible channels assuring promising return on investments and therefore can help in meeting the widening demand for investible finances for profitable exertion. With the growth of Merchant banking profession commercial enterprises in both public and private, sectors would be suitable to raise needed quantum of finances annually from the capital market to meet the growing conditions for finances for establishing new enterprises, undertaking/ expansion/ modernization diversification of the being enterprises. This reinforces the need for a vigorous part to be played by Merchant banks. Merchant banks have been earning emotional support from capital market for the commercial sector for financing their systems. This is substantiated from the adding quantum raised from the capital market by the commercial enterprises time after time. In view of multitude of enactments, rules and regulations, guidelines and offshoot

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statutory scores upon the commercial sector to misbehave with all those conditions specified therein, the need of professed agency was which could give comforting in these matters in a package from. Merchant bankers, with their skill, streamlined information and knowledge, handed this service to the commercial units and advice them on similar conditions to be complied with for raising finances from the capital market Regulation Act, Securities Contracts (Regulation) Act, and various other commercial laws and regulations. This is the reason why they play a significant part in the development of the capital market of any country.

Concept of Merchant Banking

Finance with a capital 'F' is the buzzword, which is making the world go in a tizz. Finance holds the key to all the activities. The Sanskrit saying 'Arthasachivah' which means 'Finance reigns supreme' says it each about the significance of finance functions in an organisation. A typical establishment might need finances for the purchase of new machines, advertising expenses, purchase of another concern, and prepayment of debt or payment of tips. Commercial Finance is nothing additional but the exertion of raising finances and their posterior use according to the conditions of the company. It includes, apart from the fiscal environment, fiscal planning regarding problems of public deposits, intercompany loans, investment in systematized markets similar as the capital market, the money market, the bill market, etc. Not only these instruments but also the fiscal organisations as well as development fiscal institutions assume great significance in commercial backing. Organisations like UTI, LIC, GIC, IFCI, SFC, ICICI, IDBI, and NABARD find an important place in the area of commercial finance. These various players in the fiscal market constitute fiscal services assiduity. The fiscal services indicate intermediation and facilitation of fiscal deals of individualities and organisations. The manifold activities of the commercial sector and spectacular growth of diligence in our country has created a need for having an expert advice on numerous aspects of backing systems. The entire process right from the generality of the new gambles to arranging of finances and their operation requires professional moxie. In category to give all these services under one roof there was a need for a specialised body and hence 'Merchant Bankers'. Merchant Bankers refers to associations which give a complete package of fiscal and advisory services in the arena of creation of new gambles, credit syndication, design finance, portfolio operation, combinations, combinations and appropriations. A Merchant Banker acts as a catalyst in rephrasing design ideas into artificial gambles. He renders professional advice regarding the choice of capital blend, operation of public issues etc. SEBI (Merchant Bankers) Regulation 1992, classified Merchant Bankers in 4 Category

- **Category I:** Could act as an issue director, counsel, adviser, under writer and portfolio director. Capital acceptability demand was Rs. 1 crore.
- **Category II:** Could act as an counsel, adviser, co.- director, coach and portfolio director. Capital acceptability demand was Rs. 50 lakhs.
- **Category III:** could act as a coach, counsel, and adviser for the issue. Capital acceptability demand was Rs. 20 lakhs.
- **Category IV:** Could only act as a counsel or adviser for an issue. Capital acceptability demand was nil.

All these four categories of Merchant bankers still, were latterly, abolished by the end of Securities and Exchange Board of India (Merchant Bankers) Amendment Regulation 1997 and now only (one category exists having a minimal net worth of Rs. 5 Crore. the Merchant bankers can carry activities related to; issue operation) which will correspond of medication of prospectus and other information relating to the issue viz. determining fiscal structure, tie up of financiers and final allotment and refund of the subscription. To carry activities like underwriting and portfolio operation, the Merchant bankers will have to gain a separate instrument of enrollment under separate Regulations a Merchant banker carrying on fund grounded and Merchant banking activities would have to either discontinue the activities not related to the securities market or hive off its Merchant banking exertion. The rational - to insulate the two functions of the Merchant bankers is to exclude the lapping of accounts of Merchant banking and fund grounded activities therefore easing lesser responsibility and better monitoring. As one reality (Merchant Bankers) was being regulated by two nonsupervisory bodies viz. the SEBI and RBI, close monitoring of the net worth on a nonstop base wasn't possible. Therefore, it was decided to easily insulate the activities (carried on by the same reality) as those which would be regulated by SEBI and RBI.

Importance and Need of Merchant Banking in India

Important reason for the growth of Merchant banking has been the experimental exertion throughout the country, plying redundant demand on the sources of finances for ever expanding assiduity and trade, therefore, leaving a widening gap unabridged between the force and demand of investible finances. All India fiscal institutions had endured resource constraint to meet the ever- adding demand for finances from the commercial sector enterprises. In the circumstances commercial sector had the only volition to mileage of the capital market services for meeting their long- term fiscal conditions through capital issues of equity and debentures. With the growing demand for finances there was pressure on capital market that effused the marketable banks, share brokers and fiscal consultancy enterprises to enter into the field of Merchant banking and partake the growing capital market. With the result, all the marketable banks in nationalized and public sector as well as in private sector including the foreign banks in India have opened their Merchant banking windows and are completing in this field. There has been a mushroom growth of fiscal consultancy enterprises and broker enterprises doing advisory functions as Merchant' bankers as well as managing public issues in syndication with other Merchant bankers.

Responsibilities of Merchant Banker

- **To the Investors:** Investor protection is abecedarian to a healthy growth of the Capital Market. Protection isn't being conceived as that of compensating for the losses suffered. The responsibility of the Merchant Banker is icing the absoluteness of the exposures is of consummate significance in view of the fact that entire reliance is grounded on offer Document either Prospectus or Letter of Offer because an independent agency like a Merchant Banker has done the scrutiny.
- **Capital Structuring:** The Merchant Bankers while designing the capital structure take into' regard the various factors similar as influence, effect on earnings per share, the design cost and the gravidity period, cash inflow capability of the company, the cost of capital, the considerations of operation control, size of the company, and general profitable factors. These excises are done substantially in category to meet the fund demand of the company taking due cognizance of the investor's preference.
- **Design Evaluation and due industriousness:** Due industriousness and design evaluation is another major responsibility of the Merchant Banker. Where the design has formerly been rated by a bank/fiscal institution, the Merchant Banker relies on the said appraisal before accepting an assignment. Still, where the design has not been rated by a bank/ fiscal institution, the Merchant Bank undertakes a detailed evaluation of the design before taking up an assignment for issue operation.
- **Legal Aspects:** The factors that are looked into in case of the legal aspects are Compliance with the SEBI guidelines, the Companies Act, the Securities Contracts Regulation Act and Rules and the various guidelines issued by the Ministry of Finance and Department of Company Affairs, pending actions, controversies, defaults, overdue to fiscal institutions and banks, proceedings initiated for profitable offences against the promoters in respect of any of their business gambles in India or against the protagonist's gambles or towards duty arrears or any miscreant/ civil execution any of the directors for any offenses.
- **Pricing of the Issue:** The Merchant Banker looks into the various factors while pricing the issue. Some of the factors are once fiscal performance of the company, Book value per share, Stock market performance of the shares (for being companies, stock market perception of the company/ group/ promoters, Price earnings rate of the company/ assiduity, brand equity, if any. The Merchant Banker has a vital part to play in pricing of the instrument.

Position of Growth of Merchant Banking in India

In pursuance of the process of economic restructuring and liberalization, the Government decided to divest a part of equity of public sector undertakings and also reduce government's budgetary support to public sector undertaking. Consequently public companies were left with no option but to garner large resources from the capital market to finance their development, modernization and expansion activities. This suddenly increased the number of companies approaching the capital market for raising capital. With the large number of companies coming with their offerings in the primary market, investors became selective and preferred those issues where the return proposed was attractive and

almost assured. Competition led to companies devising new investment instruments to woo the investors. This led to an increase in the demand for services of market intermediaries. Sudden expansion in capital market activities did not go unnoticed. The Government realized the necessity of creating an institutional network to ensure healthy growth of capital market devoid of any distortion and structural weaknesses. Financial sector reforms were required to remove distortions in sub optimal allocation of resources, which a capital scarce country like India could hardly afford. Already there had been shift in the policies governing capital market with the abolition of the CCI Act, 1947. CCI, till its abolition in 1992 restricted issuers access to capital markets, controlled pricing of IPO (Initial Public Offerings) and other issues and generally constricted the capital market in the iron-clad grip of Central Government Control. This was the right step in the direction to remove anomalies that existed in the capital market. In order to bring about an efficient allocation of resources, there was a need to improve market information and operation system. The primary requirement for achieving information efficiency is that all participants in the market should have equal access to information and the quality and the reliability of information should be high. Thus, paving the way for not only fair competition but also right pricing of securities with the available information. However information efficiency alone is not sufficient for optimal allocation of resources, it should be supplemented by operational efficiency.

The role of the merchant banker today is far more diverse and all encompassing than ever in the past. The role of merchant bank has transformed simultaneously. In the words of a senior official who was earlier with CCI, "In the regulated era of CCI, the role of merchant banker was little more than that of a glorified salesman." While this may appear an unduly harsh view, there is no doubt that the role was for more restricted than at present. There were many reasons for this. The CCI era was characterized by fewer capital issues. The issues were largely from companies which had already established some presence in the market; the instruments were either debt or equity issues which were always made at par in the case of IPOs. The projects being financed were invariably appraised by financial institutions.

Conclusion

The analysis of the activities of the selected nine Merchant Banking firms during the five year period found that most of the firms were concentrated on floating the public issues rather than rights issues. The Underwriting activity is secondary for most of the firm s. It is also found that there is no direct correlation between number of issues in each activity to size and value of the issues. The operational performance of the Merchant Bankers found satisfactory. However, the rate of growth in this aspect is not up to level of satisfaction. The professional approach should be adopted by these Merchant Bankers to excel in their performance. The comparative financial performance of the selected sample of Merchant Bankers shows that, these firms not following a systematic way of handling the issues. The probable could be handling the multiple activities at a time it is to be noted here that merchant banking activities particularly handled by commercial banks, foreign banks and foreign firm s are having different attitude as compared as to the firms exclusively handling merchant Banking activities for some institutions merchant banking activity is secondary in overall business activities. However, it is found in the study that most of firms having sound financial health and maintaining too. it is necessary to adopt best practices of corporate governance for all the market intermediaries including Merchant Bankers. Effective Implementation corporate Governance is the only solution for most of the problems of corporate sector in specific and for capital market intermediaries in particular.

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ROLE OF E-GOVERNANCE ON PREVENTION OF SEXUAL HARASSMENT

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ABSTRACT

Gender gap at work place has always been a problem from years. One of the prominent reasons for less participation of females from affluent family was due to lack of equal treatment at workplace and sexual harassment. Glass ceiling is another problem at workplace where women have to fight for their rights. Due to many problems faced by women there is worldwide imbalance of women population as compare to men. Female feticide and many other problems are still prevailing due to unequal treatment of men and women in the society. This has given emphasis on women participation at workforce. Technology has changed the entire set up where freedom of work can be enjoyed and at the same time females can feel protected. It has given power to females to address their problems in a quiet and with loud impact. Whatever is the reason or cause of sexual harassment the insult and guilt is being faced by females. The complaint now can be sent by e mail that has made women powerful and cameras at workplace have given protection to them. This also would help in reducing false complaints. The paper studies the workplace participation of women and role of technology in handling grievances.

Purpose: The of the paper is to address quick and safe way of complaining sexual harassment

Research Methodology: Analysis of present situation of working women with the use of technology

Key findings: Women must be trained and encouraged to make work environment comfortable by reporting and complaining any unwanted gesture or irritating behaviour of male employees

Implication: It applies to all the organizations where females are working

Originality: Views are given that women must be trained not to leave workplace rather break glass ceiling and make their space.

KEYWORDS: *Gender Equity, Sexual Harassment Complaint, Glass Ceiling, Role of Technology, Economic Participation*

Introduction

The condition of women has always been unsatisfactory from decades resulting illiteracy, suffering, poor health, lack of participation in decision making, financial dependency giving negative effect in the development of family. Women constitute around half of the population of the world but their condition is still not satisfactory. They perform household work which is not paid one. For improvement of the condition of women it was found that they must be encouraged to participate in economic activities. Many policies at national and international level are made so that women can comfortably come out of their houses and participate in earning for their family. The problem does not end here as they have one important issue of their life that is becoming mother and bringing up the child. Child care leave, maternity leave, paternity leave etc and many other benefits in government jobs and in some private jobs are given but still there is less participation of women at workforce.

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Sexual harassment is another issue which is to be dealt very carefully. It is faced by all the women at one or other point of time in their life. When women are encouraged to participate in economic activities sexual harassment at workplace needs to be addressed. If ignored it adversely affect health and development of a women. Glass ceiling is another way of ignoring women at workplace as if they cannot think and take bold and wise decision. It makes women to fight for their rights on daily basis by emphasizing the she should not be ignored and others must be respectful to them. Sexual harassment also means disrespectful towards women.

Review of Literature

After Military academia has highest level of cases of sexual harassment. For most of the time sexual harassment is disrespect of the other gender at workplace Kathryn B. H. Clancy kclancy@illinois.edu, Lilia M. Cortina, and Anna R. Kirkland (2020); Digital technology has brought problems and sexual harassment for women which are on-line sexual harassment, gender and sexuality based harassment, cyberstalking, image based sexual exploitation etc. to get sexual favors from the victim Nicola Henry, Anastasia Powell (2016); technology can help in reducing incidences of sexual harassment; Angie Cowan Hamada,+ Michelle G. Marks,± Jenny R. Yang,** and Gail S. Eisenberg*(2019)

Research Gap

- There is lack of study on role of e-governance on prevention of sexual harassment.

Objective of the Study

- The role of the paper is to address quick and safe way of complaining sexual harassment.

Meaning of Sexual Harassment

The Sexual Harassment of Women at workplace Act 2013 includes following

- “Physical contact or advances
- Demand or request for sexual favours
- Making sexually coloured remarks
- Showing pornography
- Any other unwelcome physical, verbal or non verbal conduct of sexual nature

The act is applicable in government and private organizations

The following is also considered under sexual harassment

- Preferential treatment in her employment
- Threat of detrimental treatment in her employment
- Threat about her present or future employment status
- Interference with her work
- Humiliating treatment likely to affect her health or safety”

Most of the cases are not reported and in many cases there is lack of evidence in filing the complaint

Gender Equity is one of the sustainable goals of the United Nations. It was seen that women are not living their life to the fullest. In order to improve their situation they should be encouraged to participate in economic activities. But when they step out of their houses they face another problem that is sexual harassment. Sexual harassment is faced by all the women at one or other point of time in their life. When women are encouraged to participate in economic activities, sexual harassment at workplace needs to be addressed. If ignored it adversely affect health and development of a women. Glass ceiling is another way of ignoring women at workplace as if they cannot think and take bold and wise decision. It makes women to fight for their rights on daily basis by emphasizing that she should not be ignored and others must be respectful to her. Sexual harassment also means disrespectful towards women.

According to International Labour Organisation

“Sexual harassment results in large monetary costs for governments and employers, particularly in terms of medical care and counselling, lost productivity, case settlement and judicial monetary awards. For employers, sexual harassment can also lead to significant reputation costs. It also creates significant health, economic and career costs for victims.”

- **According to Win World Survey 2021**

The age group of women who suffered sexual harassment is from 18-24 years as compare to the other age group.

In the year **2020** it was **18%**

And in the year **2021** it increased to **19%**

Countries with the **highest percentage** of sexual harassment in the year 2021 are

Mexico	26%
Ecuador	24%
Chile	22%

Least cases of sexual harassment are in

Philippines	1%
China	1%
Croatia	1%

In order to deal with issues relating to sexual harassment it is mandatory for every organization whether it is government or private to constitute an internal grievance committee. It will be having a women employed at senior level as presiding officer. Two members having social and legal knowledge and one member form non government organization committed to the issues relating to sexual harassment. Further there is condition that half of the members should be women. Time period for working of the committee is for three years. There shall be no enquiry pending against the committee members. A women candidate can file written complaint within three months of the incidence of sexual harassment. More time period can be given if the committee is satisfied with the reason for delay in filing of the case.

Sexual harassment also takes place at public places, in buses, trains, in market etc. It makes women fearful to come out of their houses and travel at public places. At times it amounts to rape and murder of the women.

The present world is world of technology that provides additional help for the safety of the women. These are as under”

- **Filing complaint through E-mail**

In many a situation the complainant is harassed to not file complaint. It can be due to pressure or glass ceiling effect. Harassed female loses confidence to address her situation. E-mail is the option which is with the women employee to file complaint without fear and the complaint is resolved quickly. At workplace it can be addressed to the employer who can further forward it to the internal complaint committee. Women and child development of India has also given (<http://www.shebox.nic.in/>) to file complaint about sexual harassment. This platform helps women to file complaint if she feels uncomfortable filing complaint in writing or if she is suppressed to file complaint at her workplace.

- **Camera at Workplace**

Installation of cameras at workplace has provided great amount of relief to the women employees especially where males are outnumbered in the organization. Recording of the camera can be used as an evidence of any mis-happening at the workplace. In cameras not only picture but voice can also be recorded. It promotes the respectful behavior of males towards females.

- **Safety Pin**

This is a mobile app which provides information regarding public safety to the user. It helps them to plan their route of journey. It helps women and girls to choose safe route journey while travelling alone hence helps in reducing crime rate. It also helps government by providing data about unsafe places thereby increasing safety measures like patrolling of police, installing cameras etc. thereby making them safe place to visit.

- **Maru**

It is a chatbot which helps girls and women by providing advice from experts to tackle on-line harassment. Hence it provide valuable information that too with privacy.

- **Safelet**

This bracelet helps the wearer to send location to family members and call for help. Geotag of the user can trace the location of the wearer and there is microphone which is built in which can record sound that can help in tracing the harasser.

- **Pathdisha**

This is a safety app where the user can alert police, family or friends for support while travelling in public transport. For using this service a person requires phone with Bluetooth. World bank is working with west Bengal transport department on this project.

- **Safe you mobile app**

It helps the users to send messages to family, friends and police in emergency situations.

- **Social Media**

It provides a virtual platform where researches on women and safety are discussed that covers individual nation to the whole world. Different measures taken are discussed that help the reader to participate in discussion and learn problem and its solution from different angles.

Conclusion

Technology has only provided additional help to the women and girls more is required to be done to stop sexual harassment that is training of employees to respect each gender, no tolerance to sexual harassment, encouraging on-line complaint of sexual harassment etc. Additionally when we talk of technology it should be properly checked that emails provided are working or not, cameras installed are recording correctly or not. More emphasis must be given to make women strong physically, emotionally and mentally so that she can use technology to protect herself. Training to women address mistreatment with them and break glass ceiling can help them to perform better at workplace.

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MOBILE BANKING AND ITS CONTRIBUTION IN CHANGING ERA

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ABSTRACT

Mobile banking is like bank in your hand, whatever and wherever you want you can do which earlier used to do when you go to physical branch and use the service provided by a bank. Mobile banking allows its clients to conduct financial transactions remotely using a mobile device such as a smartphone or tablet. These transactions happened through app installed in your mobile device and use the services provided by the bank for the purpose. Mobile banking is available on a (24 X 7). Due to increased use of bank's mobile application, banks are reducing their number of branches. As bank are targeting few of the branches are people less branch. Mobile banking is dependent on the availability of an internet or data connection to the mobile device. While, in mobile banking, transaction is made safely and quickly thus overcoming the difficulties of online banking and offline banking. With rapid growth in technology, there are so many advancements in Mobile Banking. Day by day, software used for mobile banking undergoes tremendous changes that put the customers of bank to enjoy so many unique things. Therefore, Mobile Banking is thus remarkable gift to the society at large. It spreads its benefits not only to bankers but also to customers. A cashless transaction in India is an effort to move towards a cashless economy by minimizing the use of physical cash. The main objective of the study is to present the current status of India in usage of digital currency and find the challenges and opportunities which are associated with the cashless transaction in India. Demonetisation announcement (2016) is a revolutionary move towards the cashless economy in India. The research study shows that a cashless economy will help in curbing black money, counterfeit's fake currency, fighting against terrorism, reducing cash related robbery, and helping in improving the economic growth of our country. Major challenges that can hinder the implementation of the policy are cyber fraud, high illiteracy rate, attitude of people, lack of transparency & efficiency in digital payment system. The study recommends that more people should start using digital payment methods which will serve a cashless economy or less cash economy.

KEYWORDS: M-Banking, ATM, SMS, P2P and M PIN.

Introduction

Mobile banking means of doing the financial transactions on a mobile device (cell phone, tablet, etc.). Mobile banking app provide online services which host of banking functions. For example, you can check your savings bank account balance, transfer funds to another user, request a new cheque book, set up standard instructions, initiate money transfers open a Fixed Deposit account, and pay utility bills etc. Mobile banking includes **24/7 access to funds, convenient way of paying bills, taxes, and loans**. The top disadvantage of mobile banking is potential security risks, tech issues, and extra charges for services. Customer expectations are changing day by day. Now banks are looking for new ways to attract customer and represent them self they are not providing the banking services but also, they are actually partner in their business in performing day to day operation and here mobile banking is playing a big role to increase the business activity with banking speed up performance. Banking industry is designing their product in such a way which is beneficial and useful for conducting a business with ease of doing mobile banking includes online websites, mobile apps, and SMS banking channels.

Review of Literature

Banzal.s (2010) found that the mobile banking has the issues and challenges like mobile handset compatibility, standardizing, software downloading, privacy & security.

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The Basel Committee on Banking Supervision expects risk in banking activities due to unprecedented speed of change in technological and innovation in products / services. The committee which was recommended an integrated risk management approach for all activities of a banking institution.

Prerna Sharma Bamoriya & Preeti Singh, (2011) found that Indian mobile banking users are specially concern with security issues like financial frauds, account misuse and user friendliness issue - difficulty in remembering the different codes for different types of transaction, application software installation & updating due to lack of standardization.

History of Mobile Banking

Mobile banking was first introduced in early 2000s when the Internet began to gain popularity. A few select large banks started to offer simple services on their bank websites such as viewing checking account balances and finding the nearest ATM, yet they did not offer interactive services.

At that time, we cannot think that Smart phones are also used as Mobile banking which were far from concept then, where as they are widely used today. Bank websites were accessed through non-user-friendly web browsers and were difficult to use. Poor functionality, slow screen refresh speed and a limited quantity of features contributed to why customers did not readily adopt banking channels beyond physical branches and ATMs. Costly web hosting and website design services are also the road blocker to use of online banking services.

Mobile banking depends on the features of the mobile banking app

Mobile banking app typically includes obtaining account balances and lists of latest transactions, electronic bill payments, remote check deposits, P2P payments, and transfers between a customer's or another's accounts. Some apps also enable copies of statements to be downloaded and sometimes printed at the customer's premises.

From the bank's point of view, mobile banking reduces the cost of handling transactions by reducing the need for customers to visit a bank, branch for non-cash withdrawal and deposit transactions. Mobile banking does not handle transactions involving cash, and a customer needs to visit an ATM or bank branch for cash withdrawals or deposits.

Mobile Banking and its Importance

RBI issued guidelines in October 2008 for recognizing the potential of mobile banking. The guidelines defined mobile banking as undertaking banking transactions using mobile phones by bank customers that would involve credit/debits to their accounts.

The growth in mobile banking that has been tremendously improved e in the country till date, though its growth is fast and is yet to reach to the large people. This is kind of new innovation as online transaction cost is cheaper, secure and seamless manner to the existing and potential customers without fraud and in regulatory and under the guidelines of RBI issue time to time like wise – KYC, Aadhar and PAN card linking etc..

In Today's scenario banking services are ease to use due to online banking through Mobile and tablet. Now banking services are not restricted to checking the account balance and transfer the fund but includes modern services as payment of monthly bills as auto debit, credit card loan facility new startup loans, tax payment and use of debit card etc.

RBI is predicting in upcoming days will see a greater number of people getting attracted due to ease of mobile banking. In the internet age, mobile banking can be considered as boon (if utilised wisely) like not sharing password, OTP or PIN number with other otherwise this boon become Curse.

RBI to make this mobile banking successful doing so many awareness programs including TV advertisement. (One of famous advertisement from Amitabh Bhachan – Jaankaar Baniye Satark Rahiye)

Users can transfer funds from your bank account to another bank account with a smartphone just with the help of the internet, from anywhere to everywhere using mobile banking.

Due to security guidelines mobile Banking is more secure and risk-free as good as physical transaction with in the bank. With the help of Mobile Banking, user can transfer funds, and pay bills, checking account balance, study your recent transaction, block your ATM card, etc. Mobile Banking is lucrative, and Banks offer this service at fewer rates to the customers.

Mobile banking app can be downloaded to your smartphone. The app makes navigation much more stress-free than if you were trying to use online banking through the browser on your phone. Smart phones have been one of the most impactful inventions in human history.

The impact of smart phones, as well as tablets, can become every facet of daily life in terms of how we communicate, gather information, shop, access entertainment, and of course, how we bank.

Mobile Banking in Today's Role Advantage

Mobile Banking popularly known as M-Banking is of modern origin. With this help of everyone is connect with bank in a real time basis and planned it's financial viability. It also helps to decreased infrastructure costs: Mobile Banking is cost effective, and Banks offer this service at very low cost to the customers. Banks do not have to build or maintain as many physical branches if more customers carry out banking via their mobile phone.

It enhanced security over Mobile Banking: Mobile banking is as secure. All reliable financial institution use encryption that defends and protects your privacy, identity, and your financial information. Some institutions even provide a security guarantee to make your use of mobile banking truly stress-free. Mobile Banking is said to be more secured and risk free than online/internet Banking.

Mobile phones now often contain face-recognition technology, fingerprint scanners. This biometric data aids the bank confirm the "customer" is really who they claim to be, and this biometric data offers more security and protection for customers than simple telephone banking passwords or requests for birth-date confirmations can provide. For both the financial institution and customer, this means fewer instances of compromised data and fraud.

Mobile Banking allows to Pay Bill: You can get reminders when to pay bills, so you never have to pay a late fee. You can even set up recurring bill payments, so you do not even have to think about when a bill is due. Mobile Banking Keeps You in Control: Mobile Banking is so easy and so convenient; it helps keep you in control of your finances. You can monitor your balances and always know where you are at financially.

It is an added advantage for your financial life. With account alerts, you can identify if your account falls below a certain brink and immediately transfer money into that account and avoid overdraft fees. You can credit checks instantly, which is a great help when you need the cash. All these features leave.

Growth/ Services of Mobile Banking in India

- **SMS Services:** One of the key concerns banks were facing was that of customers did several inquiry transactions on ATMs and this was adding to the burden on the ATM infrastructure. This traffic was particularly heavy during salary days. Banks adopted a solution of proactively communicating account balances and important transactional activity on accounts to customers through a simple SMS. Customers stopped queuing up in front of ATMs for inquiry transactions.
- **Payment Services:** Mobile phones had caught on much faster than all previous technology delivery channels and banks were being forced to offer new facilities. The mobile phone was unique in that it was a personal device which had computation power, storage ability and occupied a greater mindshare of the customer than the traditional money wallet. This triggered new thoughts among bankers who wanted to leverage these capabilities to offer newer set of transactions on the mobile phone. This came in the form of enabling payment transactions through the mobile phone. The mobile-based payment comes in two basic forms (i) proximity payments and non – proximity payments.

Loan requests and service requests: As mobile phones evolve into smart phones and the usability is improving, banks are finding it easier to offer more complex services on the mobile phone. The latest trends include offering loans through requests placed from the mobile phone where pre-registered customers can provide details about the loan and avail instant approval of loans. The mobile device technology progressed at a rapid pace and consumer expectations on usability of began to progress. Mobile banking progressed to offer enhanced customer experience and adopt the latest technology trends in communication to offer real time exchange of data.

Problem of using Mobile banking

Mobile Banking is dominated by network services. Mobile banking is rapidly spread all over the world because of it causes convenience to its customers. Despite there are many benefits due to it. Mobile banking has a lot of issues and problems while its usage. The customers are mostly using ATM and online banking services. Most of the customers feel comfortable without mobile banking. They also feel, there are chances of misuse in mobile banking due to mobile handset theft.

In Mobile Banking there is a lack of common technology standards and protocols and it is a big challenge for banks to offer Mobile Banking solution on such different type of mobile phones leading to interoperability issue. Privacy issue deals with the risk of disclosure of personal and financial information, it also deals in unauthorized access to stored data, especially personal information and transaction history and location information that may target direct advertising and could also encroach on privacy rights of consumers.

Research Methodology

The present research paper has been prepared by using both primary and secondary sources of information. The primary sources of information were gathered from the users of Mobile banking through well-structured questionnaire related to the opportunities and challenges of Mobile banking

While secondary sources of information were collected from the newspaper, research article, magazines, books and concerned websites. The sample size of this research is 30 who are all the users of mobile banking of different banks. The descriptive and analytical research design has been used by the researcher as the study is the mixture of both primary and secondary data.

Interpretation/ Conclusion

On the basis of above analysis it can be concluded that in upcoming days will see more number of people getting attracted due to ease of mobile banking. In the internet age, mobile banking can be considered as boon (if utilised wisely) like not sharing password, OTP or PIN number with other otherwise this boon become Curse.

Due to active and Conscious focus on govt to increase the more use of mobile banking and with enhance security feature and a lot of awareness program and a lot of account opening scheme as Sukanya Samridhi Yojana and Higher interest rate when fund deposit in the name of Senior citizen

Due to security guidelines mobile Banking is more secure and risk-free as good as physical transaction within the bank. With the help of Mobile, Banking user can transfer funds, and pay bills, checking account balance, study your recent transaction, block your ATM card, etc. Mobile Banking is lucrative, and Banks offer this service at fewer rates to the customers.

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CASH LESS ECONOMY: A STEP FORWARD IN DIGITAL INDIA MISSION

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ABSTRACT

Cashless economy is a situation in which the inflow of cash within an economy is missing and all deals are done through electronic media channels similar as direct debit, credit and debit cards, and electronic clearing and payment systems similar as Immediate Payment Service (IMPS), National Electronic fund Transfer (NEFT) and Real Time Gross Settlement (RTGS). Today, credit cards and online payment services are getting decreasingly popular in civic India, paper currency notes are still an essential part of daily life. One byword is profit is vanity, cash inflow is reason but cash is king. Cash may be defined as any legal medium of exchange that's incontinently negotiable and free of restrictions. We're the fourth - largest stoner of cash in the world. The rate of cash to GDP is the highest, i.e. 13.01% in India. Cash in rotation to private consumption rate in India is 19.5% and Card deals regard for 4.2% of the particular consumption expenditure. As most of people are illiterate, poor, engaged in small deals and having lower banking habits. For them cash is the most accessible and easy form of medium of exchange, free from hassles. A cash transaction is immediate and does n't involve any conciliator. Cash provides individualities and families with liquidity. One needs not to worry about a computer system crashing, power going off, and losing transaction midway. Use of cash does n't involves any redundant cost as in the use of debit/ credit cards. Indeed in the most cashless countries like France and the Netherlands, cash still accounts for 40% or further of all consumer deals. Generally cashless economies have low corruptions and lower black money. Nearly every country is bracing towards cashless economy and numerous countries have made significant progress. It's just a world trend which India is trying to catch up.

KEYWORDS: *Liquidity, Exchange, Economy, Intermediary, Transaction, Consumption, Negotiable.*

Introduction

Various factors must be taken into consideration as a worldwide shift to cashless could prove more complex than believed. To justify a pullout of currency, governments argue that a veritably digitalised system would annihilate elusion and concealing, reduce transaction costs and enable fiscal authorities to stimulate process. A cashless system would enable governments to trace and record every transaction, leaving no loopholes for fraudsters to bear advantage of. Also, central banks would be suitable to put any asked financial policy – including negative rates as consumers would do not have any due to recoup their cash from the industry. A demise of paper money would enable governments to exercise a full control over the industry, including shadowing and recording all transactions. However, it will also hit consumer rights to sequestration, if this could be useful within the fight against crime. Likewise, nothing would be vulnerable just in case of a system failure and a stolen or broken smart phone would incontinently leave the victim without a payment tool. Last but not least, the innumerable unbanked would be left before with none resource. As per specialists, a shift to cashless might indeed produce a alternate- class populace and therefore consolidate the gap between rich and poor. The case of India's demonetisation shows how laborious the shift to cashless is. Companies were unfit to pay hires and various unbanked citizen could not remove and drug.

What is Cash Less Economy

A cashless economy is an economy in which all types of deals are carried out through digital means. It includes – banking (mobile banking or computers), debit and credit cards, card- swipe or point of deals (POS) machines and digital wallets. The RBI and the government are making several sweats to reduce the use of cash in the economy by promoting the digital or payment bias including reimbursed

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instruments and cards. RBI's trouble to encourage these new kinds of payment and agreement installations aims to achieve the thing of a 'lower cash' society. A veritably important factor in the handling of such an economy is the assurance that the people's money is safe in banks. Also, going cashless is much more applicable but, it isn't just the foremost way to manage, but also brings about lot further snap in fiscal system. Cashless economy helps in restriction black money, depresses duty fudging and ultimately lends to reduce backing for illegal trades and conditioning counting terrorism. Therefore because of this growing effect of the benefits, numerous developing economies are accepting the cashless system and are going digital. A cashless society becomes a popular volition to attack the cash operation liability. Cashless transaction economy doesn't mean the deficit of cash rather it indicates a culture of people settling deals digitally. In a ultramodern economy, money moves electronically. Hence the spread of digital payment culture along with the expansion of structure installations is demanded to achieve the thing. The changes have created perfect request conditions for indispensable digital payment system, in addition to being e-wallets and debit or credit cards. These aren't just the introductory banking apps or website moreover. The public payments pot of India, together with the RBI, has launched UPI (UNITED PAYMENT INTERFACE), which powers multiple accounts from sharing banks, and offers several banking services all in a single mobile operations. A step in the right direction clearly, but not one without its problems. Although India has around 220 million smart phone druggies as of February 2016, there's still a long way to go until 100 of population has mobile internet access.

Advantages of Cashless India

The whole country is witnessing the goods of demonetization and with our Prime Minister intimating at a cashless economy, numerous people are left in confusion. How would a cashless economy be salutary is the question of numerous. The cashless transfer is soon getting the most favored option and there are a number of benefits of going cashless. The digital or electronic transaction of the capital by using net banking, credit cards etc. is called cashless transfer. People can fluently pay their bills online, shop and schedule deals and manage all the finances using their laptops or smart phones. Going cashless not only eases one's life but also helps authenticate and formalize the deals that are done. This helps to check corruption and the inflow of black money which results in an increase of profitable growth. The expenditure incurred in printing and transportation of currency notes is reduced. In a nation like India, cashless deals aren't wide and this is due to the technology gap and the lack of proper education. Though these are the matters of concern, the government or the fiscal institutes need to address them to produce a strong cashless economy.

- **Black money are going to be reduced:** Black money is that cash that you simply have earned but not reckoned meaning this is frequently that money which is hidden from paying levies. And this black money is banned and has the eventuality of reducing a government to bankruptcy. However, also governments can track all deals within the economy which helps in maintaining translucency and authenticity of income, if the technology behind the digital economy is important and well streamlined.
- **Translucency:** Corruption in India exists right from Ministerial position to a watchman position, all due to the dearth of translucency in our measure. Translucency could also be an enormous issue in an economy as big as India's. Corruption dishonors in India such like CWG or 2G swindles or Rafael Jet swindles are broken out because of the deficit of translucency in deals. To be foursquare, a touch essay on cashless India will not be enough to talk about all the corruption dishonors in India since its independence. Corruptions like these are reduced to a superb extent if the cashless economy is achieved throughout because the foremost important advantage of a cashless economy is that the authorities can track and therefore the origin and also the endpoint of a transaction fluently.
- **Saves money and Time:** Companies and governments will get effective and they can reduce costs as they no longer need the homemade account work to be done. The costs associated with account and handling cash is veritably high.
- **Tracking expenditure:** it's easier to remain track of one's spending if all deals are on record. it will also help while filing taxation returns and, just in case of a scrutiny, people will find it easy to interpret their spends. Besides the duty, it will indeed have an honest impact on budgeting.
- **Further Spending Helps Improved Economic Growth:** When a nation is taking a step towards a cashless economy, a boost in the profitable growth can be anticipated. In countries like US advanced card operation has contributed a consumption of about US\$ 296 billion encyclopedically from the time 2011 to 2015 which is a 0.1% increase in the GDP. Shopping

online gets easy as one can use a number of payment options; from credit and debit cards to net banking. One can observe further robotic buying while making cashless payments. Countries like Singapore have also witnessed a growth of 0.1% in GDP which accounts to about S\$ 400 million per annum. As people spend further, companies need redundant staff to handle the demand for goods and services and this, in turn, creates more jobs for jobless.

- **Lower Cash dropped Crimes:** Business and individualities can also avoid other costs as well. Theft frequently leaves a big hole in one's fund. The threat of theft will continue until people carry cash and by going cashless the same can be reduced. This also leaves an impact on the government as they can also reduce the costs that the government spends on busting the lawbreakers. In countries like the US, burglary and assault have dropped by about 10 once the government shifted the payment made for social weal to electronic transfer. The government, still, has to take measures to check the online fiddle and identity theft incidents.
- **Small earnings:** it should not appear to be important of a plus, but being cashless makes it easy to stay unfree borrowers. Another plus is that you simply just can pay the precise quantum without fussing about not having changed or getting it back from shopkeepers.

Disadvantages of Cashless India

- **Cyber Security:** In October 2016, the details of over 30 lakh debit cards were stressed to have been exposed at ATMs. It was believed that the card and Leg details might have been blurted due to which guests were advised to change the Legs of their ATM - cum - debit cards. Strict way issuing new cards were also taken. Just a month latterly, the PM is motivating people to move to a cashless society. Is the cyber security in place? While a card is reproduced, it takes several months to recover someone's hard earned money from the banks. How can people be assured that swiping cards at small shops and merchandisers won't be a threat to revealing our card details?
- **Lack of Structure:** We are not just talking about government structure but on anon-public position still. You would like a contrivance (a smart phone), data connectivity and electricity for charging the phones day after day to be suitable to make online deals frequently. Before aiming for the dream of cashless India to return true, governments should confirm of these problems.
- **Smart Phone Affordability:** Several companies have come up with new and affordable phones, but they still not affordable for most of the population in the country. Further affordable options should be launched by the government for people to buy smart phones for cashless deals.
- **Infrastructure/ Phone Battery:** India still lacks when it comes to supporting a mobile society. It's extremely delicate to find a public charging point if the phone battery discharges. Indeed metro stations or road stations in the league one metropolises don't give that structure. So what happens if you have cash in your portmanteau, but you're out of battery after travelling on the road for a day? Is there any volition that we've also?
- **Not Enough Bank Accounts:** most people still don't have bank accounts. Most frequently there's just one account per family which also limits the number of cards people can have collectively. A family of indeed four people cannot be dependent on just one card for all ménage expenditure.
- **Losing Phone:** Since one is compulsive about the phone for all deals on the move, losing it can sway be a double trouble. It can not only make one susceptible to fraud, but one could indeed be rendered helpless within the absence of physical cash or the contrary payment option. This might be especially problematic if someone is travelling abroad or by lower municipalities or townlets with lack of banking structure or other payment options. Another debit is that one must keep the phone constantly charged. However, one are visiting be stranded, If the phone gets discharged within the center of a vital purchase or addressing an exigency.
- **Network Connectivity:** Since the day demonetisation was blazoned, people are trying to use further of card deals to save that dreaded trip to the bank and to save the last penny of the hard cash in hand. Still, a unforeseen swell in card deals has led to connectivity issues. Several people have faced trouble while standing in line to pay for a transaction at a shop when the card machines have stopped working due to a load on the network. Connectivity issues must be resolved before featuring about a cashless society.

Conclusion

The future of the cashless India looks enough promising as the response of the country people towards this move of the government and the support towards it's a clear suggestion that the government's move is likely to succeed. The translucency in the economy will increase through thee-commerce deals and the digital payment gateways which will increase the GDP of the economy. This will increase the credibility of the country and make a rise in investments. This step of cashless is truly going to produce ripples of big success and it'll help to attain vision of Prime Minister Modi's vision of Digital India. The government needs to take the necessary way and make some policy considerations when they're preparing for a cashless economy. The payment systems have to be defended from the cyber-attacks which are the major trouble for cashless deals. Also, the government should be suitable to serve the under banked as well. Everyone from the society should have access to an electronic system that they can use for similar deals. Government should take measures to increase liquidity into the system so that people face lower vexation. Government should also try to ameliorate overall structure so that further and further people can come into banking net and internet. Society has also to play its part. They've to understand the significance of cashless economy and appreciate measures taken by the government. As a conclusion, it can be said that going cashless provides a lot further benefits than just convenience to people, businesses and the government in particular.

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A STUDY ON RURAL MARKETING AND ITS INNOVATIONS

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ABSTRACT

The Indian rural market has a massive demand base and offers great opportunities to marketers. Due to the diversity of India's rural consumers, the rural market offers a variety of opportunities and obstacles. 74.5 crore people make up the rural market, and this is what attracts marketers to this sector. Rural consumers must be understood by marketing corporations if they want to reach this market. As rural buyers' growth, literacy, and awareness levels rise and they want value for their money, there is a shift emerging from urban to rural marketing. When addressing consumer needs, marketers must build a relationship with them and engage in activities to better understand the rural population. The technique for marketing to rural markets has seen numerous improvements in recent years. This paper seeks to comprehend these developments and strategies as well as the rural Indian market. The future of rural marketing and development in rural areas looks bright for the growth of rural economies and a better life for the people who live therein. The paper attempts to highlight the impact of many projects, both government and private, such as ITC's echaupal, Coca Cola, Asian paints, Philips etc. and retail hubs such as Kisan Sansar (Tata), Haryali Kisan Bazar (DMC), and how they have changed the rules of the marketing game in rural India. The current most up-to-date research examined that the rural market offers marketers a great prospect, with the promise of a higher standard of living for the people who live in these rural areas.

KEYWORDS: Rural Marketing, Innovations, Marketing Strategies, Consumers, Rural Area.

Introduction

Rural marketing is a type of marketing in which strategies are developed with the knowledge of the needs and demands of people in rural areas. There is a shift from urban markets into rural markets due to many factors, including the saturation of the urban markets and the sudden increase in the number of rural consumers growing at a pace faster than that of urban consumers. Major multinational corporations want to tap into this potential market, which accounts for 70% of the Indian population living in these areas. The Reserve Bank of India, the Planning Commission, and the Census of India all have various definitions regarding what is considered rural in India. From the early 1960s through the mid-1990s, rural marketing and its assumptions underwent significant upheaval following the green revolution. Due to the enormous size of the rural market and its people, its definition is unclear. To succeed in the rural market, businesses must first understand the rural customer before trying to sell them their goods and services. This is because rural markets in India are different from urban markets. The ways that many organizations have used to apply their marketing mix of the Price Place Promotion Product has evolved into the 4As of Rural Marketing as availability, affordability, acceptability, and awareness has attracted researchers' interest in research on rural marketing. According to the Census of India 2011, there are more than 83.3 crore rural consumers in India. In terms of size, this is a sizable market for marketers; the challenge now is how to approach and tap into this market. The different difficulties that a marketer may encounter with rural marketing include:

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- Transportation and Distribution of Products - as these rural locations are spread out and difficult to access, this presents a problem.
- Mode of contact with Rural Consumers - When dealing with rural consumers, language might be a hurdle. Marketers must be aware that these individuals speak their local tongues.
- Low Education Level - Rural communities have lower literacy rates than metropolitan ones.
- Seasonal Demand - Because agricultural operations provide the majority of the income for those living in rural areas, their ability to spend money is constrained.

The opportunities in rural marketing are as follows:

- **Large Market:** The rural market's population figures simply demonstrate how vast its potential is, and if it is successfully tapped, it may result in growth unlike anything else.
- **Awareness-** The rural consumer is aware, as opposed to the conventional belief that they may not know about products and features, and thus they want products that are good value for money.
- **Rising Literacy Rates** - As the literacy rate of the rural population rises, more innovative items are needed by rural consumers, especially those who live in small towns.
- **Risk Reduction During Recessions** - Companies with investments in both rural and urban markets can protect themselves from this risk. Urban and rural markets are both prone to recession in different ways depending on the sectors affected, such as primary, tertiary, and secondary.

Research Objectives

- To study the rural market and the current scenario in rural marketing in India.
- To study the innovative efforts made by marketers in rural marketing.
- To understand the strategies implemented in rural marketing by selected cases.

Research Methodology

The literature review has indicated sufficient sources and theories in understanding the current scenario of rural marketing in India. The present study is based on secondary data obtained from journals, books, and the internet to find relevant information.

Scope of Study

Rural markets dominate the Indian marketing scene, and they require special attention to expand marketing activities. Rural India has seen an increase in consumer purchasing power in recent years, accompanied by a desire to improve their standard of living. The paper attempts to highlight the impact of several projects, both government and private, such as ITCs, Coca-Cola, Asian Paints, Philips etc. and retail hubs such as Kisan Sansar (Tata), Haryana Kisan Bazar (DMC), and how they have changed the rules of the marketing game in rural India. The paper goes on to explore how some companies have been able to have an impact in the rural segment through effective marketing strategies.

Literature Review

Rural marketing has been an area of interest for academicians, Business Schools, and Business Organizations, according to Modi, and over the years we have seen many definitions of rural marketing and what rural marketing means has changed. In the post-liberation era, it has been revealed that companies saw rural marketing as an untapped potential; today, rural marketing is about large corporations bringing their products to rural consumers. The definition of rural marketing is not clear; different organisations define rural in different ways, including the RBI, LG Electronics, the Planning Commission, NABARD, and the Census of India. According to the author, there is a development perspective in rural marketing that has existed for a very long time and suggests that rural marketing should also have the perspective of being used to amplify the economic conditions and development of these rural areas. The future of rural marketing lies in researching the various efforts made by institutions such as cooperatives and government agencies and then implementing them to bring development to these rural areas. Rural marketing has the potential to improve and enhance rural people's lives (Modi, 2009).

According to the authors' study of rural marketing in the development paradigm, when multinationals first rushed into the rural market to tap into these consumers, their growth and efforts did not produce the desired results. There is a huge gap between the rural and urban economies, and the term rural itself is conceptualised differently, and this lack of understanding needs to be developed so that rural-urban links are strategically developed when it comes to India and its rural products, and they need to be encouraged and expanded (Vaswani, Aithal, & Pradhan, 2005).

The research paper provides insight into the factors that have contributed to the expansion of rural markets and why these markets should be considered potential sources of future growth. These factors include a large population of consumers, increased consumer awareness, rising literacy rates, and expanding infrastructure. Marketers should strategically plan their mode of communication when targeting rural markets so that it can be understood by the consumer and that these regional languages play a significant role (Sharma, 2013)

The authors of a study on SWOT in Rural Marketing explain how the rural market has changed over the years; it was not previously a target market area, but it now has a consumption growth rate higher than the urban market; the rural market is expecting an increase in demand. The authors conduct their research in the southern part of Tamil Nadu, India. According to the SWOT analysis, there are some differences in certain variables between traders and farmers. Marketers' efforts are their strengths; their weaknesses are the challenges that they face in the rural market (Nadarajan & Ranjith, 2018)

Importance of Rural Marketing

- The rural market is becoming more important because the urban market is already saturated. Therefore, marketers are attempting to expand their product categories into the rural market, which is an untapped market. Nielson's survey estimates that the rural markets for FMCG (Rs. 65,000 crores), durables (Rs. 5,000 crores), and clothing and footwear (Rs. 35,000 crores) were each worth up to Rs. 1,05,000 crores in 2008. There is no doubt that the size has increased. By 2025, the sale of rural FMCG is expected to increase from its current \$ 12 billion to \$ 100 billion, according to Nielson.
- HUL was among the first MNCs to recognise this potential. The 4As of rural marketing are crucial for any corporation that wants to enter the lives of rural consumers, and understanding them is essential. The prices of the goods should be such that rural consumers with their incomes can afford them and that they do not become prohibitively expensive for them. Companies like Sunfill introduced powdered concentrate of the soft drink, which is available from a range of Rs. 2 to Rs. 15, as one of these strategies to make the product affordable. Products and services are made available by travelling first to small towns and then, via local transportation, to various nearby villages.
- At present, nearly 70% of the total Indian population feeds on agricultural activities in rural areas. Rural marketing can generate more attractive employment opportunities for rural and urban people. The growth of rural marketing leads to increased business operations, professional activities, and services that can generate a lot of employment opportunities.
- Companies are reluctant to enter this market because they lack deep insights into the mindset of rural consumers. However, local brands in Kanpur, like "Ghadi" detergent, have been able to take advantage of the opportunities offered by the rural market. Rural India offers growth-friendly sales and profits. Due to the green and white revolutions, which significantly increase wealth in rural areas, the rural market can grow. In recent years, rural markets have gained importance in nations like China and India as the general economic expansion has significantly increased the purchasing power of rural residents. Rural people's consumption patterns have changed as a result of the green revolution in India.

Discussions

Innovations in Rural Marketing and the Strategies of Rural Marketing in India

- **HUL Shakti:** Hindustan Unilever launched the Shakti project in 2001, and it has since become the industry standard for how corporations use self-help groups and rural marketing to get their brands in every corner of the village. The Shakti model also serves as a shining example of how rural marketing has benefited these women on a microentrepreneurial level. The Shakti Model of HUL works as follows: Company representatives visit the village head and identify the women

who are suitable for the roles of shakti ammas; they are then trained by rural sales promoters; finally, these women invest; and then they sell the products door to door, ideally with a profit margin of 10%.

- **Philips:** As a European corporation, Philips has successfully implemented and understood that accepting a country's culture and then catering to its needs is preferable to impose its European style and then implementing it. One example of this is its attempts to launch products like Smokeless Challah in the domestic product category, and in consumer electronics, they developed the colour television segment with "Vardaan," which was low-cost and had an LCD screen. They have also created LED flashlights and rechargeable lanterns.
- **Coca-Cola:** Coca-Cola, which is commonly referred to as Pepsi Cola in rural Indian villages and towns, wanted to change this perception. After surveying rural consumers and learning that Rupee 10 was unpopular there due to a lack of affordability, they introduced Chota-Cola for Rupee 5 to address this issue. For its rural consumers, Coca-Cola also introduced the Sunfill, a powdered concentration mix of beverages.
- **ITC E-Choupal:** ITC E-Choupal is an initiative by the Indian Tobacco Company that was launched in 2000 to give its farmers access to the most recent information regarding agricultural farming. Connecting the farmers via the internet, it strengthens the weak infrastructure and the involvement of weak intermediaries. It also provides them with knowledge of the profit margin on their crops and other pertinent information that helps them increase their productivity. Today, it is one of the largest internet innovative initiatives that serve rural India. The local farmer has gained power thanks to ITC E-Choupal, and this knowledge aids him in agriculture so that he can make the best decision moving forward. The business has more than 100,000 villages covered by its network.
- **Asian Paints:** The marketing strategy used by Asian Paints was to introduce their brand to the residents of a village by painting the homes of the village elders to demonstrate that the paint doesn't wash off. They also used the influential residents of the village to influence the rural residents, who look up to them, to have an impact. Additionally, this example increases the impact of the rural consumer experience.

Conclusion

Rural marketing is changing and innovating, and corporations that want to reach this potential customer population of 83 crore Indians must also change and innovate their strategies. The innovation in rural marketing by HUL, Philips, Coca-Cola, LG Electronics, ICICI Bank, Godrej, ITC, and Asian Paints has demonstrated how corporations have customised the marketing mix for rural consumers, referred to as the 4As of rural marketing. The rural market brings with it opportunities and challenges that must be conquered and overcome, respectively. Marketers must establish a relationship with rural consumers before developing and selling products based on their needs and demands. Rural youth, along with changing literacy rates among rural consumers, will play a significant role in the future. Rural marketing innovations have and will continue to have an impact on the lives of these rural consumers. The development of rural markets is also a step toward national development. The government, non-governmental organisations (NGOs), and self-help groups all play important roles. The rural market offers marketers a great prospect, with the promise of a higher standard of living for the people who live in these rural areas.

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A STUDY OF INCOME AND EXPENDITURE PATTERN OF MIDDLE CLASS

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ABSTRACT

Middle class families regard for nearly 78 per cent of the total working force in the country, operating over 63 per cent of the total area. Given the present trends and sectoral patterns of population growth and labour immersion, it's egregious that the proportion of small and marginal farms in the country would continue to grow, and thus, it's no use simply saying that our small and marginal farms are not feasible and non sustainable. Grounded on the means of livelihood, rural households are divided into five orders viz., self-employed in husbandry, self-employed in non-agriculture, and agrarian labour, other labour and residual order of others. Among these, the prevalence of poverty is the highest in agrarian households. For the developing countries like India, where a maturity of families, in both the farm and non-farm sectors, decide their livelihoods from husbandry, sustainability of husbandry cannot be bandied or indeed defined in insulation of the issue of livelihoods. Livelihood is defined as acceptable stock and inflow of food and cash with an individual or a family to meet its introductory requirements. Livelihood security also means secured power of, or access to, resources and income-earning conditioning, including reserves and means to neutralize pitfalls, ease shocks and meet contingencies. There are four top ways of acquiring livelihoods by the rural households. First is the product grounded livelihood. A large proportion of the small and marginal growers gain livelihoods through product on small pieces of land. For these households, vacuity or access to inputs and bettered styles of product are relatively critical for their livelihoods. Hence this becomes relatively important that a balance is maintained between income earned and expenditure incurred by the house holds especially the middle class, where the income sources are relatively limited. This exploration paper is especially targeting the analysis of pattern of income and expenditure of the middle class households of India.

KEYWORDS: Sustainability, Agriculture, Contingencies, Production, Household, Expenditure, Resources.

Introduction

Situations of income and expenditure pattern are the two introductory criteria through which the living standard of any community or ménage can be measured. The consumption pattern, size of saving and investment and the position of debt depend upon the position of income. Either, the distribution of income among the households in a community determines the living standard of the community. Utmost of the small land holders and landless rural households decide livelihoods by dealing their labour. For their livelihoods, demand for labour, pay envelope rates and prices of food are the critical factors. Third is the exchange or request grounded livelihood. Those rural households which produce fat food and non-food agrarian products or non-farm goods earn their livelihoods by dealing these over pluses in the request. The marketing system for these products and relative prices of what they vend and what they

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buy, affect their livelihoods. The fourth set of livelihoods is transfer- grounded entitlements. The households without any income earning asset or suitable- bodied person to work depend for their livelihoods on transfer from the government or other social associations. Government's social security and food backing programmes are applicable for this group of rural households in fulfilling their livelihood conditions. The rural livelihood systems in the developing countries therefore encompass a broad range of factors and depend on several macro subsystems of the economy. The declining trend in profitability in the backward regions is a matter of more serious concern because the situations of technology relinquishment and accordingly the yields and income situations of growers in backward regions are awfully low. The present study is confined to the middle class families and it attempts to assay their income and consumption pattern.

Income and Expenditure Pattern – Phenomenal Aspect

Income and expenditure pattern of people in a country is one of the important factors impacting the profitable development of that country. The term 'income' in general means money, goods and services in return of labour or for the use of other resources. Economists classify income into two orders. Income entered in return of labour is called earned income similar as payment and stipend. Income entered in return for the use of resources other than labour is called unearned income similar as rent, interest, and profit. The particular income that remains after levies is called disposable income, which is available for consumption and saving. The disposable income left after paying introductory requirements similar as food, apparel and sanctum is optional income, which is available for meeting other expenditures and saving. Expenditure means money, goods and services used for satisfying particular and social requirements. The particular expenditures are of two types- consumption and investment expenditure. The quantum and value of goods and services spent on particulars which aren't meant for current consumption but are meant for inferring income or benefit in future for a long period is called investment expenditure. Exemplifications of investment expenditure are construction of domestic houses and investment in Government bonds. Generally, families with low income tend to spend a larger part of their earnings on rudiments like food, cloth and sanctum than do families with advanced income. As income rises, families tend to spend a larger part of their earnings on similar particulars as apparel, education, entertainment and the like. Generally, a developed economy is characterized by high situations of income and high situations of consumption and an underdeveloped country is characterized by low situations of income and low situations of consumption. The income and consumption are inter-connected. A low position of income leads to low situations of consumption, which in turn, results in low situations of living. The position of consumption at times may be low indeed in an advanced economy. This may be due to lack of effective demand as a consequence of over product. But in the case of underdeveloped economy, low position of consumption isn't due to over product but due to low position of income. The position of living of an existent is indicated by his position of consumption. Consumption is a major criterion for the well-being of the people. It stimulates individuals to earn more income. So the income and expenditure pattern of an individual, a region or a country reveals the economic status and level of living of that individual, region or country.

Observations of Income Pattern

The average annual disposable income per household is observed to be Rs. 85,375. The income pattern of middle class has the resemblance of the income pattern of almost same in all states. Among the four sources of income (wages from farming operations, cultivation, farming of animals and non-farming operations), the major source of income is cultivation for all five types of household of farmers except the household of landless farm workers for whom the main source of income (50.08%) is wages followed by income from live stock (30.77%). In the case of household of medium and large, the major source of income is cultivation which constitutes 93.10 percent (of their total income). And, they don't have any other source except some meager income from live stock. The percent share of contribution by each type of households of farmers towards the aggregate income is 14.69 per cent, 51.78 per cent, 7.48 per cent and 4.03 per cent respectively. The share of marginal farmer is the highest as they are more in number in whole of the country. Medium and large farmers are very few, hence the lower contribution by them. Workers and salaried employees contribute 93.78 per cent total income. This is due to irregular and inadequate income from wages and agricultural operations. Consequently they resort to non-farming operations as an alternative source of income. The average monthly income per household of each type of farmers and medium farmer and large farmer-are Rs. 4352, and Rs. respectively, with the lowest average monthly income reported by the household of landless farm worker

and the highest by large farmers. The overall average monthly income per house hold is Rs. 7040. The average monthly income of households of medium families is 2.32 times the overall average income and that of the households of large farmers is 4 times the overall average income. It was found that a one-rupee change in the daily wage rate of landless farm workers would result in a change (in the same direction) of Rs 586.31 in their annual household income. It is also found that if the size of investment in farm and non-farm operations increases by Rs. 1000, the annual household income of landless farm workers increases by Rs. 476.62.

Observations of Expenditure Pattern

The composition of annual household consumption expenditure of middle class families consists of nine major items, which include three basic items (food, cloth and shelter) and six discretionary items (fuel, health care, education, entertainment and travel, social and Religions functions and other items). The analysis of consumption pattern of different types of household reveals that for all types of households, expenditures on food, entertainment and travel, education and cloth rank first, second, third and fourth respectively in terms of percentage share in total consumption expenditure; and households report a monthly surplus which are Rs Rs. 5630, the overall monthly average being Rs. 469. It is found that the percentage share (in total consumption expenditure) of food and entertainment and travel expenditures decrease as the household income increases and the percentage share of expenditures on cloth, fuel, health care, and education increases as the household income increases. The average monthly household consumption expenditure increases as the size of land holding increases. This is due to the fact that the income-which influences the size of expenditure-increases as the size of landholding, increases. The average monthly consumption expenditure per household is 3.48 times the average monthly consumption expenditure of the households of landless farm workers and 2.44 times that of marginal farmers. The distribution of household consumption expenditure was analysed with statistical tools like frequency distribution, Decile Groups Analysis, Lorenz curve and Gini co-efficient. The frequency distribution of household consumption expenditure revealed that the distribution of expenditure was positively skewed which implies that the households having very high expenditure were fewer in number and households having low consumption expenditure were large in number, indicating some inequality in the distribution of consumption expenditure. Entertainment and travel expenditure is found to be a staple item for the middle class families. It is also found that when household size is constant, a one percent increase in income cause 0.3651 per cent increase in entertainment and travel expenditure. It was found through the Chi-square test that the liquor consumption habit of male members (of the age of 18 years and above) in the households of middle class families, is influenced by the liquor consumption habit of their elders in the family and their friends/co-workers/relatives. However, their liquor consumption habit is independent of their nature of occupation and their level of education.

Combined Observations of Income and Expenditure

The two identified variables that influence the household consumption expenditure are household disposable income and household-size. In order to measure the impact of disposable income and household size on expenditure and to find the nature of each item of expenditure for testing the Engel's Law of family expenditure, income and household size elasticity for each item of expenditure were estimated through log-linear regression models. Thus, nine regression models were framed for nine items of expenditure, with income and household-size as independent variables and each of the item of expenditure as dependent variable. Following are the findings;

- It was found that the disposable income was a significant factor influencing all the nine items of expenditure. The income elasticity of all items of expenditure was positive which implies that if the household-size is constant, an increase in household-disposable income leads to an increase in all items of expenditure. It was also found that increases in expenditure is less than the proportional increase in income, as the value of income elasticity is less than one for all items of expenditure.
- The house hold-size elasticity was positive for five items of expenditure (i.e. food, cloth, health care, education and entertainment and travel) and was negative for the remaining four other items (ie shelter, fuel, social and religious functions and other items). The positive household-size elasticity indicates that when disposable income is constant, the expenditure on food, cloth, health care, education and entertainment and travel increases as the household-size increases.

The negative household size elasticity reveals that when disposable income remains the same, the expenditure on shelter, fuel, social and religious functions and other items decreases, as household-size increase. In other words, as the household size increases when disposable income is constant, an additional amount is spent on food, cloth, health care, education and entertainment and travel and, this additional amount is fully or partly met by reducing expenditure on remaining items of expenditure. If the additional amount is partly met by reducing certain items of expenditure, the remaining amount is made up by borrowing. So it is concluded that households of middle class families attach more importance to food, cloth, health care, education and entertainment and travel as these items have positive household-size elasticity.

- It was found that household-size significantly influence all items except cloth. It was also found that both disposable income and household size taken together significantly influence all the items of expenditure.
- In order to find out the most appropriate model suitable for estimating income elasticity and household-size elasticity for each item of expenditure, three forms of Engel functions (ie three types regression models) namely linear, semi-log and log linear models were investigated. It was found that log-linear model was the most appropriate model for all items of expenditure.

Conclusion

A study of the income and expenditure pattern of middle class families has revealed a number of interesting features. The overall average per capita consumption expenditure for most of the families are Rs. 34.38 which is not sufficient to lead a life with minimum living standard. The household consumption expenditure pattern of middle class families is not exactly similar to the pattern observed all over India. But, it is close to the pattern observed in majority of the states. The liquor taking habit which is very much prevalent among most of the farmers is one of the major causes for the extreme poverty and socio-economic backwardness that has been haunting the households middle class families for centuries. The researcher is optimistic that the present study will pave way for many more similar studies in future and those studies will definitely contribute a lot to improve the well being of farmers. Based on the experience of the researcher, the following areas have been identified for further research.

- A study on Income and Expenditure pattern of Marginal farmers exclusively.
- A study of Income and Expenditure pattern of small farmers.
- A study of the Economic Impact of Expenditure on consumption of Intoxicants.
- A study of Economic Impact of Poverty Alleviation Programmes on Marginal farmers
- Impact of alternative employment opportunities of middle class families - An Empirical study.

The researcher hopes that the present study will lead to many similar studies in future, which may contribute effectively to the wellbeing of the farming community everywhere.

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INTRODUCTION: E-BANKING

Dr. Renu Jangid*

ABSTRACT

The usage of e banking by the enterprises came into existence in mid 90's. e-banking came into existence in greater numbers because of low operating costs. First it is in the form of ATM's and phone transactions. Recently it transformed to internet a new channel between customers and banks which benefits both. The main aim of e-banking services is to provide the customers a much faster services with low cost. From the last twenty years, banking sector has chosen a new method of banking based on the progress of information technology. In addition to these customers, transaction and communication abilities are fastened based on information technology.

KEYWORDS: e-Banking, ATM's, Banking Sector, Information Technology, Electronic Banking

Introduction

The progress of electronic banking started with use of automatic teller machines and afterwards it developed to online banking. In the future it will be done in mobile phones (wap-enabled). Anyway online banking continues to be the best for financial transactions.

E-Banking Meaning

E-banking made its debut in UK and USA 1920s. It becomes prominently popular during 1960, through electronic funds transfer and credit cards. The concept of web-based banking came into existence in Europe and USA in the beginning of 1980.

In India e-banking is of recent origin. The traditional model for growth has been through branch banking. Only in the early 1990s has there been a start in the non-branch banking services. The new private sector banks and the foreign banks are handicapped by the lack of a strong branch network in comparison with the public sector banks. In the absence of such networks, the market place has been the emergence of a lot of innovative services by these players through direct distribution strategies of non-branch delivery. All these banks are using home banking as a key "pull" factor to remove customers away from the well entered public sector banks.

Many banks have modernized their services with the facilities of computer and electronic equipments. The electronics revolution has made it possible to provide ease and flexibility in banking operations to the benefit of the customer. The e-banking has made the customer say good-bye to huge account registers and large paper bank accounts.

- **What is e-banking?**

Electronic funds transfer means computer systems are used to perform financial transactions electronically. The EFT is used for electronic payments and customer initiated transactions where the cardholder pays using credit or debit card.

The transaction types are, Withdrawal, deposit, inter account transfer, inquiry, administrative transactions that covers non financial transactions including PIN change. Electronic Fund Transfer transactions need authorisation and a means to match the card and card holder. NEFT transactions require the cardholder's PIN to send online in encrypted form for validation by the issuer of the card. Other information may include the card holder's address or the CVV2 security value printed on the card.

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Electronic funds transfer transactions are activated during e-banking procedures. The different methods of e-banking are:

- Online banking
- Short Message Service banking
- Telephone banking
- Mobile banking

Online Banking

Online banking also called as internet banking, allows the customers to use all the banking services from a computer which has internet access. The customer can perform financial transactions on a secure website operated by the bank. Online banking offers features such as bank statements, loan applications, funds transfer, e-bill payments and account aggregation allows customers to monitor all their accounts in one place.

• **Telephone Banking**

Telephone banking is a service provided by the banks which provides customers to perform transactions on phone. All the telephone banking systems uses automated answering system with keypad response or voice recognition capability. To prove their identity customers must provide a numeric or verbal password or answering the questions asked by the call centre representative. In telephone banking customer can't withdraws and deposits cash but can do all the other transactions. Mostly there will be a customer care representative to which the customers speak, although this feature is not guaranteed. The customer care representatives are trained to do what are available at the branch like chequebook orders, address change, and debit card replacements.

• **SMS Banking**

SMS banking is a service permitting banks to do select banking services from the users mobile by the SMS messaging. SMS banking services have push and pull messages. Push messages are sent by the banks for alerting customer about new offers, marketing messages, alerts to events happening in customers account such as large amount of withdrawals from ATM or credit card etc.

• **Mobile Banking**

Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a smart phone or tablet. Unlike the related internet banking it uses software, usually called an app, provided by the financial institution for the purpose. Mobile banking is usually available on a 24-hour basis. Some financial institutions have restrictions on which accounts may be accessed through mobile banking, as well as a limit on the amount that can be transacted.

Importance of E-banking

E-banking provides many advantages for banks and customer's. E-banking has made life much easier and banking much faster for both customers and banks.

Main advantages are:

- It saves time spent in banks
- It provides ways for international banking.
- It provides banking throughout the year 24/7 days from any place have internet access.
- It provides well-organized cash management for internet optimization
- It provides convenience in terms of capital, labour, time all the resources needed to make a transaction.
- Taking advantage of integrated banking services, banks may compete in new markets can get new customers and grow their market share.
- It provides some security and privacy to customers, by using state-of-the-art encryption and security technologies.

Benefits of E-banking

To the Customer:

- Anywhere Banking no matter wherever the customer is in the world. Balance enquiry, request for services, issuing instructions etc., from anywhere in the world is possible.

- Anytime Banking – Managing funds in real time and most importantly, 24 hours a day, 7days a week.
- Convenience acts as a tremendous psychological benefit all the time.
- Brings down “Cost of Banking” to the customer over a period a period of time.
- Cash withdrawal from any branch / ATM
- On-line purchase of goods and services including online payment for the same.
- To the Bank:
 - Innovative, scheme, addresses competition and present the bank as technology driven in the banking sector market
 - Reduces customer visits to the branch and thereby human intervention
 - Inter-branch reconciliation is immediate thereby reducing chances of fraud and misappropriation
 - On-line banking is an effective medium of promotion of various schemes of the bank, a marketing tool indeed.
 - Integrated customer data paves way for individualised and customised services.

Features

Online banking facilities typically have many features and capabilities in common, but also have some that are application specific. The common features fall broadly into several categories:

A bank customer can perform non-transactional tasks through online banking, including:

- Viewing account balances
- Viewing recent transactions
- Downloading bank statements, for example in PDF format
- Viewing images of paid cheques
- Ordering cheque books
- Download periodic account statements
- Downloading applications for M-banking, E-banking etc.
- Bank customers can transact banking tasks through online banking, including
- Funds transfers between the customer's linked accounts
- Paying third parties, including bill payments and third party fund transfers
- Investment purchase or sale
- Loan applications and transactions, such as repayments of enrolments
- Credit card applications
- Register utility billers and make bill payments
- Financial institution administration
- Management of multiple users having varying levels of authority
- Transaction approval process

Disadvantages

E-banking has various advantages which improves the banking system but there are disadvantages of using internet banking. These are as follows:

- **Security Issues**

Internet banking is completely insecure as there are many problems related to the website and data can be hacked by the hackers. It can leads to financial loss to the users. The financial information can also be stolen that can also create financial loss.

- **Lack of direct contact between customer and banking officer**

Online banking requires effective customer service for handling issues faced by the user. But lack of customer support creates disappointment among the customers. There are some online payments which may not be reflected in the system due to technical issues. It also creates insecurity among the customers. Thus the lack of support from customer service executive is a barrier in online banking.

- **Transaction Problem**

During online banking there are various issues faced by the user such as transferred payment is not reflected, payment failed, and other issues due to technical support.

- **Long procedure to access e-banking**

In some countries, government banks are providing internet banking by filling the internet banking form then after approval you can access security password to log in. An individual need to download the App of specific banking then all credentials needs to be filled for login successfully (Sharma, 2016).

- **Training and Development**

The banks need to conduct training and development program for employees for providing quality online services which enhance the customer experience. It requires huge investment to train them for providing effective services.

Conclusion

Online, internet, virtual, phone banking and ATMs are the products or services or application of E-banking. It is considered as a remarkable development in the banking sector. E-banking helps banks and government to keep a record of transactions, helps banks to reduce their paperwork, it is very less time consuming and accurate. It helps customers to not to wait in queues for transactions, make it easy for them to keep records of their transactions and spending. So, E-banking is the future of banking and we as peoples, banks and government have to apply it with grace, we must welcome it with open mind.

Questions

- Q:1 What is e-banking?
- Q:2 what are the disadvantage of e-banking?
- Q:3 Explain the benefits of e-banking?
- Q:4 Explain the features of e-banking?

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DIGITAL INNOVATION IN EDUCATION AND ITS GROWTH

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ABSTRACT

Digital Innovation and Transformation defines the use of digital technology and to improve existing processes by working efficiently. Digital innovation in education allows students to register for admissions via mobile, allowing teachers to track student's progress and to organize online classes. Schools found new ways for students to communicate and collaborate with them and also to complete the assignments and projects while working digitally. In this study we focus on growth and innovation of new technology under digitalization of education and it has different modes teaching and learning platforms. Here we have comparative study between online and offline methods of education. Online and offline studies both have their pros and cons. In the modern era the people adapt modernization in the education system whereas in offline mode there is direct interaction of teachers and students which gives better results.

KEYWORDS: *Digital Education, Online Education, Offline Education, Innovation, Transformation.*

Introduction

Digital Innovation in Education

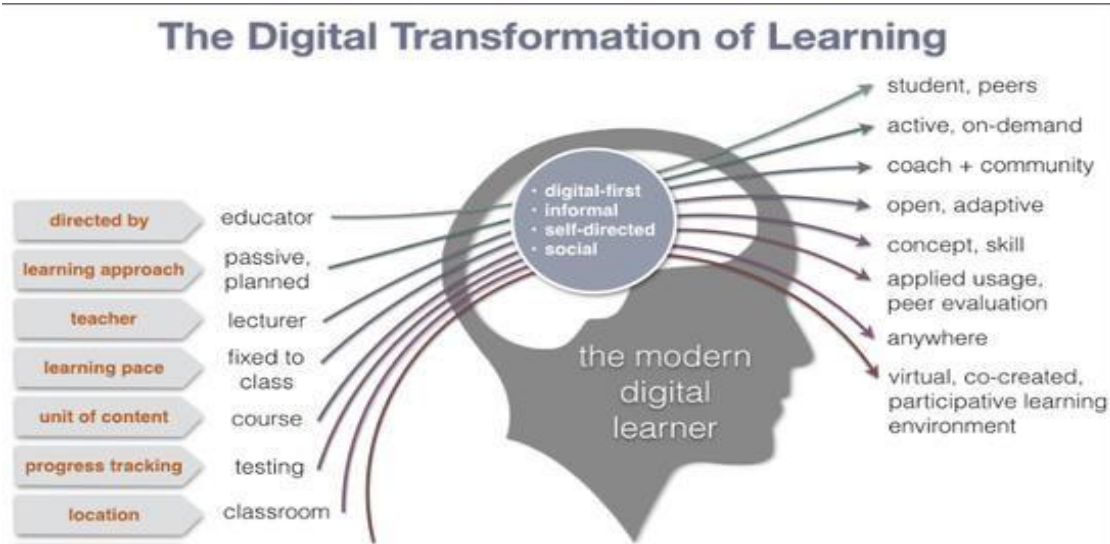
What is Digital Innovation?

Digital Innovation and Transformation defines the use of digital technology and to improve existing processes by working efficiently. Digitalization has reached up to all the industries and all sectors of society like education, health-care even in business organizations. It is the cultural, economic, social, organizational and operational change of an ecosystem through smart integration. Today's generation are so much dependent on digitalization as they grab the present and future changes which results in faster development of digital transformation strategy and increases the more expectations of customer behavior.

The COVID 19 outbreak completely changed the sectors and organizations by bringing a lot more advancement in technology in every sector by collaborating platforms like remote working, distance learning, online sales channels, video conferencing etc.

Schools found new ways for students to communicate and collaborate with them and also to complete the assignments and projects while working digitally. At the same time, in the health-care sectors telemedicine, medical devices and block chain are some of the components of digital innovation.

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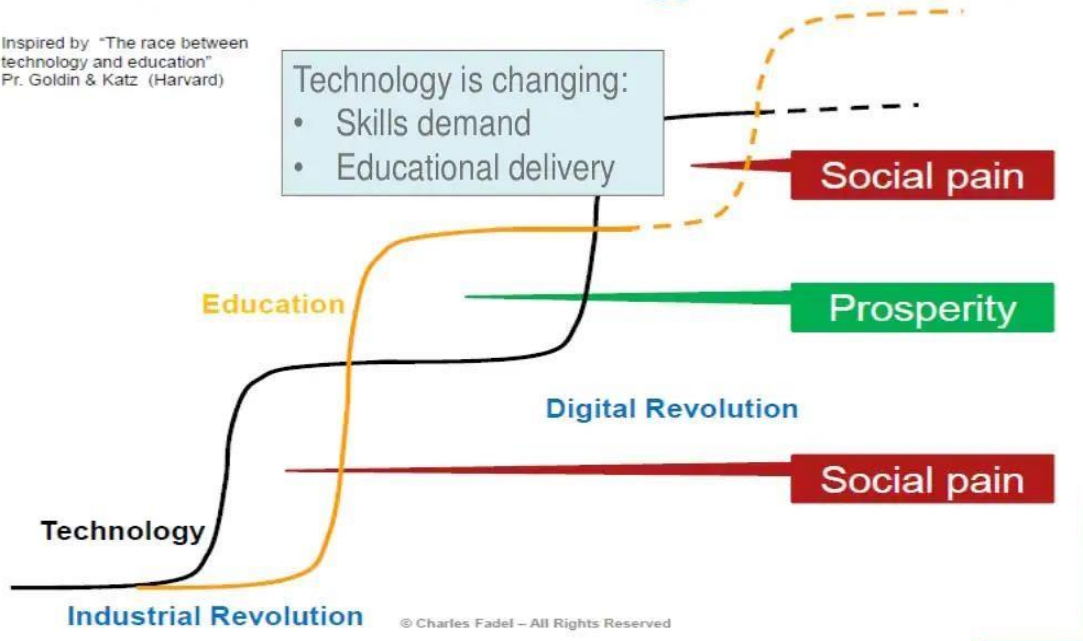


Education

Education plays a significant role in the progress of the human race. It is one of the mediums to enhance knowledge, build confidence and discover skills. It is a platform of various opportunities for success and helps in building a strong nation. In the education industry, targeted customers can be students, faculty and staff. Digital innovation in education allows students to register for admissions via mobile, allowing teachers to track student’s progress and to organize online classes. The digital transformation of education can result in a standard technology which improves the learning process of students. The main goal of such innovation in the education system is to allow students to achieve acceptable educational results i.e. Machine learning, cognitive computing.

The Race between Technology and Education

Inspired by “The race between technology and education”
Pr. Goldin & Katz (Harvard)



Offline Mode of Education

Offline mode of education refers to direct interaction between teachers and students. It implies face to face teaching and learning methods. Students can ask their own doubts and queries which is the easiest way to understand the concept. It is also known as a traditional form of education.

In offline mode, there is a chance for the teachers and students to bond and form social interaction. Even more chances of debate and discussions which help students to build confidence. It includes dance classes, physical exercise classes, and some creative activities. Some of the qualities of offline education are- It is known as teacher centered and requires passive learning by the students. In this, the instructor usually controls the classroom. Face to face instructions doesn't rely upon networked system.

Objectives

- To identify the need of online education, via digital transformation.
- To understand the pros and cons of various modes of education.
- To know about the impact of transformation and innovation during Covid19

Advantages of Offline System

- Students are fully attentive towards classes because of face- to-face interaction between students and teachers.
- Teachers can provide individual attention to the students, address their issues and solve it quickly.
- Students are taking lectures on time and making their notes as per their needs.
- There is a disciplined atmosphere in offline mode of education.
- Most importantly, offline education creates a competitive atmosphere among the students.
- Disadvantages of offline system
- No recording of lecture and classes which makes non-availability of notes who missed the class.
- Students may lack the opportunity to learn advanced technology.
- More resources are used in offline classes – on infrastructure, on smart classes etc.
- Because of offline class students do not feel motivated towards the competition.

Major Transformation in Education during Pandemic

In general terms education refers to moral values, positive behavior, attitude of helping, giving to society and positive thinking. But when we are talking about education or school, we always come up in a conversation that a teacher is reading out lessons loudly in a classroom, students are studying in rows of desks. However, the term SARS-COV-2 affects the globe as a whole in early 2020. The pandemic results in closure of schools, colleges and universities impacting close to 1.38 billion students. The COVID-19 has forced the education system to find different methods and strategies to provide education to the students. The new norm involves the teacher giving the notes and lectures through the internet and unlocking more learning apps which increases the option of worldwide seminars, international conferences etc. As both the teachers and the students play a fundamental role in supporting students to develop attitudes and adapting changes with the aim of reducing burden.

When the pandemic came, nobody expected it to become this widespread and long-lasting. The physical classes are simply suspended in lockdown period till the further notice of the government. But this pandemic exploits the children's education which will ultimately affect the children's future.

For continuing this support, digital innovation plays a very crucial role in the advancement of technology in our education system. To provide education in the lockdown period the best possible is ONLINE LEARNING. The online academics and lessons really came in handy for students who would continue learning uninterrupted with the help of these online platforms.

- The Education system moved the activities online to continue the school closure.
- Online school has been an important tool to sustain skill development during lockdown.
- Online learning method has been considered a suboptimal substitute for face-to-face interaction.

- The crisis affects the system so schools can integrate video conferencing solutions to allow students to continue their studies.
- It results in **homeschooling** by attending online classes, webinars and sessions

Online Mode of Education

Online mode of education refers to student’s study from home or any other place with internet accessibility. They can acquire learning material online. The learning materials can be audio, texts, notes, videos and images. It enables students to gain educational experience through technology. It is also known as a modern form of education. Some of the qualities are- it is student centered and requires active learning. In this the students usually determine classroom dynamics and the students are dependent upon internet connection.

The Government of India has launched the ‘**Bharat Padhe Online Campaign**’ to reduce the loss in education in this era of the COVID-19 pandemic, which is growing the importance of online education.

Advantages of Online Education

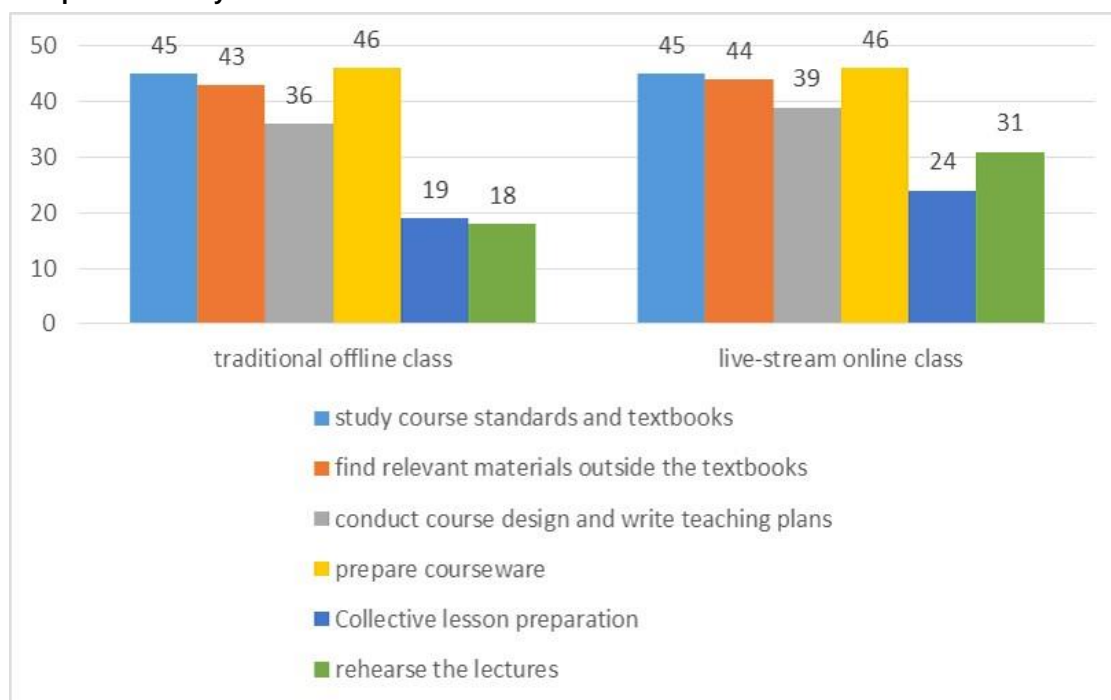
- Online learning provides efficiency, flexibility and convenience to the students.
- Online learning is more affordable as physical learning platforms contain more cost on infrastructure of classrooms, cost on books but online education reduces cost as the content is delivered on text, images, videos.
- Online classes unlock more learning apps as it increases the option of free classes, mock tests and preparation of competitive exams through smartphones.
- There is accessibility to time and place in online classes. It allows students to attend the classes from any location of their choice.
- Online learning also helps us to become more globalized.

Disadvantages of Online Education

- In online classes, there is a minimal physical interaction between students and teachers which results in a sense of isolation for the students.
- It is one of the biggest dis-advantage of online learning as network and technical issues disrupt the audio, video etc.
- It results in anxiety, headache, eye-sight problems because of more screen time. It also distracts the students with social media and entertainment.
- Lack of availability of smartphones, laptops and internet connection in slum areas.

Difference between Offline and Online Modes of Education

Offline	Online
<ul style="list-style-type: none"> • It occurs in a classroom with a teacher who presents a particular topic lesson. 	<ul style="list-style-type: none"> • It takes place over the internet and is a form of distance learning.
<ul style="list-style-type: none"> • Various educational tools such as blackboard, whiteboard, partner work, individual activities. 	<ul style="list-style-type: none"> • Content can be delivered as text, images, videos, online assessment.
<ul style="list-style-type: none"> • Invite professionals or experts to conduct lessons. 	<ul style="list-style-type: none"> • Classes are conducted via zoom or google meet.
<ul style="list-style-type: none"> • No chance of cheating in exams. 	<ul style="list-style-type: none"> • More chances of cheating in exams.
<ul style="list-style-type: none"> • It is also known as a traditional form of education. 	<ul style="list-style-type: none"> • It is also known as a modern form of education.
<ul style="list-style-type: none"> • There is face-to-face interaction between the teachers and the students. 	<ul style="list-style-type: none"> • There is no direct but minimal physical interaction which results in a sense of isolation.
<ul style="list-style-type: none"> • It requires more time and money. 	<ul style="list-style-type: none"> • It requires less time and money.

Comparative Study of Modes of Education**Conclusion**

As covid 19 pandemic affects many things and has stifled the education industry. Digital innovation and transformation give a strength to the education sector, especially during covid. Online students give students a chance to continue their studies through technology. It is one of the largest platforms for gaining knowledge via the internet. But every side has two faces so, online and offline studies both have their pros and cons. In the modern era the people adapt modernization in the education system whereas in offline mode there is direct interaction of teachers and students which gives better results. A child can grasp more through classroom interaction and learning.

Getting to know the latest technology is the best but the traditional processes are vital because many people still use this method.

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MAKE IN INDIA: THE COMMERCIAL INDEPENDENCY OF INDIA

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ABSTRACT

Make in India is that the Indian government's flagship campaign intended to season up the domestic manufacturing assiduity and attracts foreign investors to take a position into the Indian economy. The Indian Prime Minister, Mr. Narendra Modi first mentioned the crucial expression in his maiden public vacation address from the ramparts of the Red Fort and over a month latterly launched the campaign in September 2014 with the will of reenergize the whole artificial and manufacturing businesses and has forced the main sectors of the business or diligence with the high figured industrialist and entrepreneurs which are moving or going out of India because of its low rank in easy doing business conditions. India is well known for its manufacturing capacity after China. With the vast position of Geographical area as well a large number of youthful population devoted towards working and really the severance at mass position make it more perfect for India to come a global Leader in the manufacturing field. After Corona epidemic, most of the countries are irked from China and has started moving their manufacturing establishments form there. Hence this is may be the right time to gain the occasion and use of Make in India Campaign. Still Political will is veritably important demanded in it. Apart from the launch of a vibrant folder, which should find its way into the hands of anyone meaning to invest into India, the government of India also launched a web point to condense the campaign. The Make in India website highlights each of the 25 target sectors with statistics, reasons to presume, growth motorists, all programs applicable to investors and also the individual sectors, government support, and openings for investors other than showcasing the live systems that are accepted and FAQs. The web point also links to the juggernauts Social Media feeds on Twitter, Facebook, Google Plus, and YouTube.

KEYWORDS: *Unemployment, Manufacturing, Pandemic, Investment, Global, System, Strategy.*

Introduction

The biggest Programme made in history of India to attract the new Investment, enhancing the invention, developing the Skill, and develop the stylish in Class Manufacturing installation in India, is the "Make In India" Programme. Make in India is a Global Strategy, as conceptualized by Our Prime Minister Shri Narendra Modi on September, 2014 to attraction the Investment from throughout the world and within the process, strengthen India's manufacturing sector. The campaign has been concentrated to fulfil the end of job creation, enforcement to secondary and service sector boosting the fiscal system, converting India to an independent country and to convey the Indian economy global recognition. The Make in India is a trouble to make flux of Foreign Direct Investment in India and to make an enhancement in services through the mode of Privatization of some Loss incurring Public Sector Undertakings. The entire Make in India Campaign is under the direct supervision of Central Government. The high and may be the most important object of this campaigning to come out with

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the fuller utilisation of capacity of Heavy diligence and Public enterprises along with focus on generation of employment and making commission of secondary as well as other sectors and making the application of mortal RESOURCE at presenting in India. The results till now are mixed. It takes time to line up manufactories and therefore capabilities and only also the returns is judged. To offer an honest illustration, Falcon (Apple iPhone maker) has inked a scowl with Maharashtra government which can bring investment worth \$5 billion to the country and make thousands direct and circular jobs. Ford has also decided to line up a shop in Gujarat which goes to use thousands again. Indeed Asus has decided to line up a handset manufacturing unit in India in Andhra Pradesh. Considering the below stories, the direct benefits would be in terms of flux of exchange, job creation performing in lower severance and also technological up- gradation. India since 1990's has particularly seen a drone in commission sector.

Make in India and Indian Economy

The impact of this campaign will be felt both domestically and internationally. The development of the manufacturing sector will produce employment openings for the youth of the country, palliate poverty, attract investments, produce value for Indian goods and fix the rising trade deficiency. Internationally, it'll ameliorate India's standing in the world and investors will look at India not simply as a request but as an occasion. Therefore, the impact of this campaign is no secret, moreover. This is going to make India, one of the commanding nations in the entire world if followed dutifully. This helps diligence to establish their manufacturing bases in India. In turn, this helps produce employment in India. Diligence tends to develop a support ecosystem around them, therefore empowering small businesses. Exports from similar diligence help in contributing to our foreign exchange reserve. Most importantly, such an action helps bring critical knowledge about manufacturing and product into the Indian population. This action, by Mr. Modi is literally inviting the rich and semi-rich countries to step 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 home of our country. Now, this action has a great impact on the economy of our country. Obviously, if the big companies will setup their branches then, it'll directly affect the GDP of India. Numerous foreign companies making the investments in Make in India campaign, hence having a great impact on the economy of India. Obviously, if the big companies will set up their branches then, it'll directly affect the GDP of India. The main thing is that the focus is on the manufacturing sector, and the population of India is majorly middle- class or lower middle- class. So, the products manufactured by the foreign companies will be entirely for the upper section of the society. The Government has started this campaign with following backings

- Setting up 'Invest India' (will act because the first reference for aiding investors)
- Setting up a zealous web gate "<http://www.makeinindia.com>" to resolve all queries putting in place of an expert panel to requital grievances and handle queries of world and domestic investors within 24 hours
- Raising FDI caps in railway and defense product to 100 and 49 independently
- The terrain of positivity created by this campaign has significantly bettered the perception of the Indian economy.

The new rankings are indeed a lift for the economy, but way further is needed to be done on the bottom. During this field, government must do way further if its wants 'Start Up' India programme to succeed. India also fared lower within the areas of enrollment of parcels and administering of contracts. Therefore, the new rankings may feeds a motivational cheer to the govt., but it still had to maneuver long hauls ahead for full fledged fests.

Aims and Vision of the Make in India Program

Manufacturing presently contributes just over 15 to the public GDP. The end of this campaign is to growth is to a 28.3% donation as seen with other developing nations of Asia. In the process, the government expects to induce jobs, attract important foreign direct investment, and transfigure India into a manufacturing mecca preferred around the globe. The logo for the Make In India campaign is an elegant captain, inspired by the Ashoka Chakra and campaigned to represent India's success in all spheres. The campaign was devoted by the Prime Minister to the prestigious loyalist, champion and political personality, Pandit Deen Dayal Upadhyaya who had been born on the same date in 1916. The action also seeks to laboriously target top companies across crucial sectors in linked countries to encourage them to invest in India. Domestically, the "Make in India" action aims to identify domestic

companies having leadership in invention and new technology for turning them into global players. The focus will be on promoting green and advanced manufacturing and helping these companies to come an important part of the global value chain. The Government has linked.

Major Initiatives of the Make in India Plans

- **Invest India cell:** An investor facilitation cell set up by the government will act as the first reference point for guiding foreign investors on all aspects of non-supervisory and policy issues and to help them in carrying non-supervisory concurrences.
- **Consolidated services and faster security clearances:** all central government services are being integrated with an E-Biz single window online gate while countries have been advised to introduce tone - instrument. The ministry of home affairs has been asked to give all security concurrences to investment proffers within 3 months.
- **Devoted gate for business queries:** A devoted cell has been created to answer queries from business realities through a recently created web gate (<http://www.makeinindia.com>). The reverse- end support platoon of the cell would answer specific queries within 72 hours.
- **Easing programs and laws:** A vast number of defence particulars have been de-licensed and the validity of artificial license has been extended to three times.
- **Relations with the user's callers:** A pro-active approach will be stationed to track callers for their geographical position, interest and real time user behaviour. Callers registered on the website or raising queries will be followed up with applicable information and newsletter.
- The Companies (Amendment) Act, 2015 has been passed to remove conditions of minimal paid- up capital and common seal for companies. It also simplifies a number of other associated non-supervisory conditions. It also simplifies a number of other non-supervisory conditions.
- An Investor Facilitation Cell has been created in "Invest India" to guide, help and handhold investors during the entire life- cycle of the business.
- The Department of Industrial Policy and Promotion has also set up Japan Plus and Korea Plus. They're special operation brigades to grease and gormandize track investment proffers from Japan and Korea independently.
- Guarding Minority Investors Greater exposure of conflicts of interest is now needed by board members, adding the remedies available in case of prejudicial affiliated- party deals. fresh safeguards have been put for shareholders of intimately held companies

Challenges in Implementation of 'Make in India'

No doubt the below banded advantages of Make in India conception will maximize our profitable process and thus the enterprise taken by the current government is being welcome by every corner of the globe. It's veritably clear that countries and particular sector players are showing their keen interest during this conception and are willing to presume in manufacturing sector, but, following are certain slate area's which needs immediate attention of the government For smooth perpetration and success of this idea. India's labor laws are still ancient by most norms which make hiring and firing and shutting down of hamstrung units coming to insolvable. India, in one sense encompasses a civil structure which reduces the Central government's power in pulling off similar schemes and generalities. Provision of serviceability like electricity, water, structure development like roads, law and order, land allotment, are each under state government's scheme. Therefore, cooperation of state governments is an absolute necessity for "Make in India". High position of corruption in India is the worst situation in the bureaucracy. China while on the premise of information handed by translucency transnational is more loose than India, India's '70's leftover of permit and license raj (which ends up in red- tapism and hence corruption) and weak requital system makes doing business a really delicate task. This can be the most reason the country has fared inadequately in simple doing business indicators. In keeping with International Bank for Reconstruction and Development data, it's at a remote 130 compared to China which is 83 (2015 data). India's investment in health and education leaves plenitude to be asked. A talented and healthy population is both a decent hand and a potentially good employer. India spends but 3 of GDP for both health and education. China, on the contrary hand, spends over 3 of a way larger GDP in favor of both. Political insecurity, law and order problem, social uneasiness, adding rate are another challenges which restricts the countries to take a position in India.

The Way Forward

The policy action of putting in place five artificial corridors across the length and breadth of the country when enforced would convert the metropolises municipalities within the pathway into manufacturing capitals. The five artificial corridors viz; Delhi- Mumbai Industrial Corridor, Amritsar-Kolkata Industrial Corridor, Bangalore- Mumbai Industrial Corridor, Bangalore- Chennai Industrial Corridor, Chennai- Vizag Industrial Corridor would meet in itself the creation of 100 smart metropolises across India. The Digital India programme would also come an element of the marketable Corridor and Smart City program. But at the bottom of these programmes is that the Skill India programme. there is an critical need for skilling, re-skilling and over- skilling the labour force in order that the demographic advantage that India is correct now enjoying is fruitfully utilised for creation of business Corridors, Smart metropolises, Housing for All, Swachh Bharat Mission, road connectivity etc. Hence while the Make in India action would boost the manufacturing exertion and thereby produce jobs, the skill India would make available job ready professed pool to the assiduity for enhancing their productivity and grease briskly manufacturing sector and overall profitable process. The contrary flagship programmes would also promote demand for colorful products of the manufacturing sectors.

Conclusion

Make in India is a new public program campaigned to transfigure India into a global manufacturing mecca. It contains a raft of proffers campaigned to prompt companies-original and foreign- to invest in India and make the country a manufacturing hustler. The major ideal behind the action is to concentrate on job creation and skill improvement in 25 sectors of the economy. The action also aims at high quality norms and minimising the impact on the terrain. The action hopes to attract capital and technological investment in India. After all that's the only thing that defines the accurate situation of the country. The better the GDP, the more advanced will be the nation. And, in this case, the campaign of Mr. Narendra Modi is concentrating further on the manufacture, so it's natural that it'll have a better impact on the GDP. Manufactured has surfaced as one of the high growth sectors in India. The Make in India campaign helps to place India on the world chart as a manufacturing Mecca and give global recognition to the Indian economy. India's ranking among the world's 10 largest manufacturing countries has bettered by three places to sixth position in the coming times. There's a estimable attempt to reduce red tape recording, enhance foreign direct investment limits, pare labour laws and environmental concurrence processes, and in general to speed regulatory processes over. Some sectors like information technology, machine - factors, medicinal, etc, are encyclopedically relatively competitive. Some sectors, similar as defense manufacturing, food processing, and electronics aren't competitive. Some are nicely competitive like electrical ministry, fabrics and leather. Make in India policy, which aims to turn India into a " global manufacturing mecca". Ignoring rhetoric, the demographics of India are each about a youthful, under- professed pool. The offer of making in India will boost manufacturing the electronic manufacturing request in the country. The large investment in manufacturing will bring in further capacity creation in the country. The duty reliefs given to start ups and MSME's will boost sustainable employment and the quality of startups in the campaign led manufacturing sector.

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A STUDY ON CUSTOMER SATISFACTION IN PRIVATE SECTOR BANKS

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ABSTRACT

Customer satisfaction is the main concern of private sector banks. Customer satisfaction plays very vital role behind customer retention. Banks focus on customer satisfaction as it enhances customer loyalty. Private sector banks provide better banking facilities than public sector banks. The number of bank branches of private sector banks in urban areas are more in comparison to rural areas. The study is based on primary and secondary data. Primary data has been collected from the customers of private sector banks in West Bengal. Secondary data has been collected from journal articles. In this paper, an attempt has been made to find out the role of customer satisfaction in private sector banks.

KEYWORDS: Bank, Private Sector, Customer, Customer Satisfaction.

Introduction

Customer satisfaction in banking sector depends on several factors such as accessibility, security, web portal management, convenience etc. Customers of private sector banks prefer e-banking more than traditional banking in recent years. Banks focus on customer satisfaction to survive in the competitive environment of banking sector. Private sector banks provide better services than public sector banks. Highly educated people prefer e-banking than traditional banking. Web portal management of private sector banks is better than public sector banks. The employees of private sector banks are properly trained to deliver accurate services to the customers. Private sector banks adopt modern technology to provide high quality services to the customers. Customer satisfaction plays major role towards customer retention. Banks emphasize to increase the level of customer satisfaction as it helps to enhance customer loyalty. Customer satisfaction is very important for both public and private sector banks. The objective of the study is to find out the role of customer satisfaction in private sector banks.

Literature Review

Bank managers should focus on the quality of services to enhance the level of customer satisfaction (Kampakaki and Papthanasion, 2016). Banks focus on customer satisfaction due to technological development and increased competition in banking sector (Cabanillas et al.,2013). Customer satisfaction depends on various factors which includes psychological and economic factors (Kumbhar, 2011). Traditional banking depends on branch banking but online banking depends on internet (Santhiya and Saravanan, 2018). Customer satisfaction is the primary concern for banks as the success of banks depends on long terms relationship with customers (Esmaeili et al.,2013). Banks adopt modern technology to deliver services to customers as the preference of customers changes with the change in technology (Sunith, 2019). Internet banking provides the facilities to the customers to avail wide range of financial transactions (Faisal and Tayachi, 2021). Banks emphasize to enhance customer loyalty by increasing the level of customer satisfaction with the help of technology (Suleiman et al., 2012). Banks are compelled to deliver online banking facilities to customers due to increasing competition in banking sector (Sikira, 2021). Digital

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revolution in banking industry has forced the banks to provide technology-based services to customers (Mansuri, 2021). Banks provide e-banking services accurately to the customer to enhance customer loyalty (Saravanan and Leelavathi, 2020). Customers prefer e-banking as they can avail banking services without visiting bank office (Peter, 2020). Customers can avail mobile banking facilities easily by using their mobile phones (Deshwal, 2015).

Methodology

The study is based on primary and secondary data. The sample size of the study is one hundred. Primary data has been collected from the customers of private sector banks in west Bengal.

Data Collection and Data Analysis

The employees of private sector banks are very efficient:

Agree	:	77%
Disagree	:	23%

77% of respondents agree and 23% of respondents disagree.

The quality of services of private sector banks is satisfactory:

Agree	:	79%
Disagree	:	21%

79% of respondents agree and 21% of respondents disagree.

The service quality of private sector banks is better than public sector banks:

Agree	:	83%
Disagree	:	17%

83% of respondents agree and 17% of respondents disagree.

The customers face security threat in e-banking in private sector banks:

Agree	:	52%
Disagree	:	48%

52% of respondents agree and 48% of respondents disagree.

Customer satisfaction should be the primary concern of private sector banks:

Agree	:	88%
Disagree	:	12%

88% of respondents agree and 12% of respondents disagree.

Private sector banks use modern technology to improve service quality:

Agree	:	95%
Disagree	:	05%

95% of respondents agree and 05% of respondents disagree.

Conclusion

Private sector banks focus on customer satisfaction to enhance customer loyalty. The service quality of private sector banks is better than public sector banks. Many people avoid private banks due to high banking charges. The number of bank branches of private banks in rural areas is very low. Private sector banks adopt modern technology to provide proper services to customers. Customer satisfaction plays major role behind the success of private sector banks.

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SUCCESS FACTORS IN E- GOVERNANCE: A STUDY OF RURAL RAJASTHAN'S E-GOVERNANCE PROJECTS

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ABSTRACT

Providing government services with the people in mind is more important than ever. In this way, trust and open dialogue between the government and its citizens may be established and maintained. All the research done so far indicates that this type of system helps to simplify daily life and reduce expenses. In the realm of technology, this process is known as "e-Government." Information and communication technologies (ICT) are used in e-governance to facilitate government-to-citizen (G2C) and government-to-government (G2G) service delivery, information sharing, communication, and the connection of various platforms and services (G2G). The National e-Governance Strategy (NeGP) in India is an initiative by the government to provide all forms of governmental services to the people of India online. It is widely held that the Indian state of Rajasthan lags well behind the rest of the country in terms of technological development. But it could be one of the handful states where e-Government programs have been consistently successful for years. Numerous e-Government initiatives, like e-Gram, e-Bazaar, Raj Wi-Fi, Raj e-Vault, Bhamashah Yojana, e-Sanchar, e-PDS, Rajasthan Payment Platform, i-Fact, Sampark, e-Mitra, etc., are now active across the state, particularly in the rural areas. This study provides a critical evaluation of Rajasthan's e-Government offerings as they pertain to the state's outlying rural communities. The study's goal is to shed light on the current state of e-Governance and the potential of digitalization to enhance the efficiency and accessibility of government services.

KEYWORDS: Rural Rajasthan, E-governance, Success Factors, E-Mitra, Development.

Introduction

E-governance is the administration of a government over the Internet. With the proliferation of different information and communication technologies, e-governance has seen remarkable growth in recent years. E-governance was initially applied in industrialized nations including the US, UK, China, and others years ago; it's now highly established. Nevertheless, it remains in the developmental stage in countries that are still in the process of being developed (Patra & Das, 2014; Singla, 2005). As a mechanism, e-governance makes it easier for people to interact with their government in new ways, which ultimately leads to better governance. In point of fact, the ultimate objective of e-governance is to create a government that is SMART (simple, moral, accountable, responsible, and transparent) and efficient. While e-governance often refers to interactions between people and their own government, it may also refer to interactions between different types of authority using electronic means of communication (Dhamuniya, 2015). The ultimate goal of any administration should be to provide services to its residents in a way that makes it possible for its operations to function smoothly and efficiently. E-governance, in point of fact, is beneficial to the government's efforts to become more customer-oriented.

Since most Indians live in rural areas, they need to be able to use e-government. Because of the critical role that ICT plays in the functioning of electronic government, increasing its availability in outlying regions is an urgent need (Singh Kalsi & Kiran, 2013). This will result in strong governance,

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which will, in turn, lead to improvements in administration and interaction within the government, as well as a reduction in corruption and an increase in transparency. This article explores the changes brought about by e-governance, the many e-governance initiatives carried out by the government, as well as the measures the government must take to guarantee the effective implementation of e-governance in rural Rajasthan.

Success Elements for e-Government in Rural Rajasthan

Rajasthan, India's most populous state is widely recognized as a pioneer in the development of effective methods of governing via the use of information and communication technologies. The government has gained notoriety in the recent decade for its widespread usage of IT programs and the use of innovation to ensure the efficient implementation of e-government projects (Prashant Gupta, 2017). In addition, Rajasthan had been an early adopter of block chain technology and other forms of cutting-edge innovation.

The Indian state of Rajasthan is at the forefront of e-governance ever since the 2005 launch of the now-famous eMitra. The Bhamashah Yojana is only one example; others include the Rajasthan Payments System, ePDS, eSanchar, and iFact (Kumar, 2016). The various e-Government portals seem to have been developed with a unified goal in mind: providing easy access to any and all state-related information that a citizen would need. To explain, the e-Mitra is a multi-modal system that employs a website, a smartphone app, including over 40,000 kiosks around the state to deliver the state's integrated specific services to the homes of its rural citizens (Chaudhuri, 2019). The government claims that the greater than 200 linked services can handle payment gateways provided by all of the leading banks, together including mobile payment websites, in conjunction to micro-ATMs and company cash registers. Digitally signed certificates (like Bonafide, Caste, Salary, and Solvency) may now be requested, issued, and verified using the e-Mitra website. These services were just recently added (Agarchand & Laishram, 2017).

The government of the state of Rajasthan uses various different types of electronic governance, including the Bhamashah Yojana. All state agencies are expected to use this system, which functions essentially as a citizen data hub, to verify an individual's eligibility for services. Just like the Aadhaar, it assigns a unique identifier to each individual and may be used to track families in which a mother or even other female member serves as the de facto "Head of the Household." It grants access to all of a family's monetary and non-monetary privileges via a single point of contact. Sampark is a community complaint handling program available to rural Rajasthan residents. This method also includes a reality check for closed cases, a way for the state to hear back from complainants, and the ability to include SMS messages (Agarchand & Laishram, 2017; Tibrewal, 2017). Electronic public distribution systems (ePDS) use point-of-sale (PoS) terminals and Aadhaar-linked validation to provide individualized public distribution system (PDS) benefits to locals while avoiding fraud and abuse. Notable additional e-governance initiatives in Rajasthan include the State Portal, an interactive face for state government, event-based notifications to beneficiaries and officials via eSanchar & iFact, a rural Wi-Fi setup system called Raj Wi-Fi, two-way digital payment provision supplied by Rajasthan Payment Platform, as well as an auction website framework among buyers, brokers, food producers, and APMCs (Kalsi & Kiran, 2013). The Remotely Integrated Mobile Money Service (RIMMS), the Electronic Business Access Point (eBazaar), and the Digikit, are all-inclusive toolkit for fostering digital literacy. The administration of Rajasthan has been making use of digital infrastructure to aid in the digitization of its internal administrative processes, in addition to leveraging digital applications in order to be of help to citizens of the state. In order to show the various layers, host GIS-based services, and collect spatial and non-spatial information for important organizations, RajDharaa provides a uniform platform (Jain, 2018). The Raj eVault is a digital safe deposit box that includes digital self-attestation as well as e-Verification for further peace of mind while keeping sensitive information. The Raj eSign platform is an all-in-one automation solution. Raj Bioscope is the official state-run video streaming website of Rajasthan.

Revolutionary Changes

The COVID-19 pandemic outbreak hampered livelihoods as well as lives in its aftermath of a disaster, prompting a need for broader and deeper digitization that might enter previously unexplored pockets and reach to the furthest and most isolated regions (Jawaria et al., 2016). The worldwide shutdown caused by the outbreak accelerated this need. India has responded to the pressing reality that required a more substantial mobilization of technology, in particular the spectrum of perceptive,

smart, and integrated technologies, generally named 'New Technologies,' in order to upgrade, scale, or rebuild government. This has occurred across a variety of domains, including the economy, learning, the healthcare system, healing, and happiness, the shipping of important services and commodities, and the fundamental mode of operation of the authorities themselves (Naik, 2011). In this category, researchers locate artificial intelligence (AI), deep learning, as well as cloud services. The ability to implement change and make an impact on a population of approximately 1.4 billion people; the ability to include the elderly, who have traditionally been excluded from the benefits of digital governance; the ability to shape the daily routines of the people who grew up with mobile computing; the ability to bring the rural and the impoverished into the fold.

Recent events like the commemoration of the one-billion immunization milestone, which was expedited as a result of the CoWIN app, and the inauguration of various major projects as a result of the Digital India plan are proof that technology has already begun restructuring the Indian public services, especially the rural realm (Jawaria et al., 2016). The coronavirus epidemic seems to be providing a catalyst for the rapid and painless implementation of technology models of citizen-friendly processes. There are a number of ways in which the pandemic has affected a shift in consumer behaviour (Lal & Haleem, 2009). Retail establishments with physical storefronts were once the standard, but now, online marketplaces like Amazon and eBay have surpassed them in popularity. This shift in the market has also led to an unprecedented growth in the number of enterprises that focus on selling directly to consumers. It is projected that by 2025, India's direct-to-consumer market would be worth more than \$100 billion (Jain, 2018). Despite the fact that direct-to-consumer businesses are now gaining a great deal of attention, especially in urban markets, there is still a considerable amount of dashed hopes in Tier II towns as well as rural regions. Union Minister of Finance has recently announced the launch of "Ease of Doing Business 2.0," that requires integration of central and state mechanisms via IT bridges, digitalization of traditional work, single-point connect throughout all citizen-centric services, and much more.

The state of Rajasthan is striving to be a frontrunner throughout the "Digital India Mission" by implementing e-Mitra Plus. This cutting-edge computer kiosk makes it easy to get access to over 300 private and public services in a flash (Sharma & Rathore, 2020). Thanks to advancements in e-governance and the widespread availability of e-Mitra Plus terminals, any resident of the state may now access government services at their convenience. The all-in-one convenience of this touchscreen kiosk has no need for human involvement since distribution is handled automatically.

For e-Government to work, the many software platforms being developed by the various agencies must be able to communicate with one another and share data. Because of this, it is crucial to guarantee the uniformity of several data masters across each of the platforms now under construction, including administrative boundaries, demographical, socioeconomic factors, and naming standards (Keil et al., 2021). The Ministry of Information Communication and Technology created the Central Public Master Data Centre (Rajmasters). Within Rajmasters, the relevant department will have authority over masters for filtering and adding/removing content, but access to the system for viewing and using content will be granted to all users (Kumar, 2016).

For instance, the Revenue Department would have the authority to make changes for village masters, while the Panchayatiraj Administration would play same role for PRI masters. From now on, no individual applicants will be permitted to set up their own separate masters; instead, all departments will be required to employ Rajmasters for the role of masters (Boulton, 2017). If a required master is not already available in Rajmasters, the requesting department will be granted authorization to create it there rather than in its own app (Abidin, 2017). Rajmasters is the first system throughout the state built for this purpose, and it provides statewide programs (Dr. Sanjeev.C. Shirpurkar, 2020) with access to a single, centralized master library. Rajmasters may be used as services and integrated into many other programs with little effort.

The Integrated ShalaDarpan Interface is a supplementary initiative that aims to provide a user-friendly, streamlined, and multilingual online school monitoring system. Its goal is to compile and frequently update data on all publicly funded institutions, including their faculties, student bodies, and available courses (Mertia, 2017). Planning, administration, and the selection of teaching staff, as well as the introduction of new programs and their subsequent evaluation, all appear to rest on this premise.

More than 85 lakh pupils and much more than 3.75 lakh members of staff at the state's over than 65,000 school systems have their information kept up to date by the Rajasthan Comprehensive ShalaDarpan, popularly considered the "Model School MIS." The ministry is capable of keeping an eye on issues like low enrolment, a high student-teacher ratio, inadequate facilities, a lack of funding, and other comparable problems thanks to this consolidated view of the data (Ahsan & Rahman, 2017). Employees at schools, municipalities, and at state level have been held to a higher degree of accountability since it is easier to identify underlying roadblock in any implementation. If a school doesn't have a playground, for instance, the platform ShalaDarpan makes it possible to keep tabs on the whole process of allocating land, monitoring applications, and allocating funds.

Changing People's Lives in Rural Areas

The eGram initiative was started in the Indian region of Rajasthan to provide the destitute of the poor with access to the information they need to improve and secure their lives. Especially in more remote places, the initiative was meant to serve as a wake-up call about the state of government-provided infrastructure (Hazarika, 2019). Village-level data on infrastructure and its monthly state is being gathered in real time using a web app accessible at <http://egram.raj.nic.in>.

A "Gram Prabhari" is tasked with completing the paperwork and consulting with the villagers as part of that procedure. Health, education, PHED, women's services, energy, social equality, agriculture, animal husbandry, public distribution service, cooperatives, as well as rural development were all considered within a single framework, saving both time and money (Upadhyay, 2013).

The target sectors and their related features have been split into two categories. There is CMO EG-2, which needs data entry once a month, and CMO EG-1, which is more long-term. Each information cluster's two forms were determined after extensive consultation with field officials, planners, and administrators. The forms that resulted from these conversation enabled software's local-language UI, which includes a straightforward data-entry and report-generation mechanism (Kolluru et al., 2021). About 400 features, for all of the 43337 municipalities, are stored centrally. A high-capacity connection of 2 Mbps is now available in every school district. The monthly updates on the initiatives come straight from the villages, making the overall operation more adaptable to the requirements of the locals down in each individual settlement.

Users may submit data as granular as a single building block from any internet-connected kiosk. Any interested party, including government agency field workers, may access the report module. The effectiveness of the review process that serves as the foundation of this project depends on the prompt delivery of data by block-level authorities. Subdivision and revenue authorities' meetings are also frequent spots for district-level oversight (Kalsi & Kiran, 2013). It has also served as a means of providing employment opportunities for formerly jobless youth, who have been given the necessary training and are currently employed as data input controllers at different nodes across the state. The ICT infrastructure at NIC facilitates data collecting from each of the 33 district heads and 249 blocks. Even though just the data entry process has been outsourced, even that little step has had significant positive effects for those living in rural areas. As of the sixth of each month, all data has been collected, and by the fourteenth of the following month, all data entry has been completed.

Districts are making advantage of the video conferencing tools available to schedule the Reviews. Those at the highest levels of government preside over these evaluations. The village directory, which was built using site codes from the 2001 Census, is now used as a standard by which other location-based implementations in the state are measured (Hazarika, 2019). As a result, the strategic planning, the tactical management, and the operational manager have all found the use of the technology for information and communication tool to be a boon in many ways, ranging from the dhani to the rajdhani.

To ensure the timely provision of solutions to the end client, who resides in the most remote section of the state, the objective was to establish an easy and consistent approach for giving feedback (Chaudhuri, 2019). E-Gram may be used as a "single window gateway" to assess the current state of service delivery, ensuring that all relevant agencies will promptly implement fixes. Having made it simpler for decision-makers to access data, this project has had a significant effect, particularly for the rural populace. Since the most neglected rural poor also happen to reside in the most expensive to service locations, this initiative has had a significant effect.

Discussion

The Indian state of Rajasthan, and particularly the more rural parts of the state, has entered a new era of economic and social growth thanks to the introduction of a number of new programs and the widespread use of electronic government. The citizens of the state, its enterprises, their workers, and the administration of the state government have all contributed to the realization of this possibility. At the later part of the day, we are in a position to assert that the benefits of e-Governance consist of the well-conceived, efficient, transparent, and dependable public services that have been delivered to individuals in a manner that saves them time in a certain way. This is something that we are able to claim because e-Governance has been implemented. Management of the Process Reconfiguration, Project Management, Personal Finance, and Future technologies are indeed the four skills needed that were identified as being essential for remedying difficulties that occur at the scheduled or task level. This recognition came about as a result of the fact that reconfiguration, Project Leadership, Wealth Management, and Future technologies are all interrelated. The Indian region of Rajasthan is preparing the way for the growth of e-Governance in a number of different ministries by putting into action a number of important initiatives that are vital to this process. As part of an effort to make more effective use of information and communication technologies (ICTs), the Administration of Rajasthan is collaborating with the Rajasthan Government Entity for Computer Services (RajComp) and the Office of Information Technology, located in Jaipur (Rajasthan), to carry out a number of different kinds of projects. "Rajasthan Government Body for Computer Services" is what RajComp is officially known as.

End users of e-governance include citizens, companies, government personnel, and the government itself; hence, the service provision through a variety of delivery options and the degree to which those services are computerized should be the major emphasis.

We are firmly of the opinion that advances in information technology have the ability to bring about changes in the manner in which we carry out our regular responsibilities. We all must learn to accept technology's existence in the present moment rather than seeing it as something which belongs in the far future since it is the engine that drives productivity. Following the completion of this phase, state agencies will go on with the planning and execution of e-governance initiatives that are centred on the requirements of locals.

Conclusion

One of the aims that is mentioned in a goal for the state of Rajasthan is the transition of Rajasthan together into civilization that is based on information. In order to reach a position of importance and uniqueness in the information age, this objective necessitates the government to make use of communication and information technology. The use of information systems has been tasked with the mission of assisting locals in acquiring higher salaries and an increased number of employment opportunities, with the end objective of raising the general quality of life in the region. In conjunction to this, it plans to hasten the rollout of e-governance all across spectrum in order to boost the transparency, and transparency of the interactions that take place between the people and the government. Access to cutting-edge technology shouldn't only be given to those living in big cities, according to the state administration of Rajasthan. Instead, they think it should be made available to everyone, everywhere.

An investigation of these already established applications of e-governance reveals the potential for digitalization to be used in such a way as to increase the accessibility and effectiveness of public services provided to rural areas of Rajasthan. On many different fronts, people are now able to attain more work efficiency than what was previously possible because to the advent of technology. It is abundantly clear on many fronts that the nation as a whole, including its population, will make significant technological advancements in the near future as a direct result of the growing reliance of local, state, and federal governments on technologically-driven solutions to improve performance and productivity.

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AN ANALYSIS OF SHARE PRICE REACTIONS TO M&A IN THE INDIAN MANUFACTURING INDUSTRY

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ABSTRACT

Mergers and acquisitions (M&A) is a common strategy businesses use in the modern globalized economy to enhance their competitiveness by gaining market share, expanding their investment portfolio to lower trade risks, breaking into new markets, and gaining access to economies scale, among other things. Through an analysis of an event study, we attempt to analyze the effect of M&A announcements in the Indian manufacturing sector affect the wealth of the acquiring companies' shareholders. A sample of 69 M&As involving manufacturing companies is examined for this reason, with the M&A announcement date falling between 2013 and 2021. The t-test is being applied to determine the significance of the cumulative average abnormal returns (CAAR). The present study revealed that during pre and post-announcement of M&A, almost all the window periods (-40 to +40) are positively and statistically significant at a 1% significance level. CAAR increased as the event window increased after the announcement of M&A, raising from 0.09 two-day window (+2, +1) to 11.99 forty-day windows (+40, +1). The significant difference between the CAAR of Pre & Post M&A announcements is witnessed. It is concluded that the announcement of M&A has a significant impact on shareholders' wealth.

KEYWORDS: Event Study, M&A Announcement, CAAR, Manufacturing Sector.

Introduction

M&A activity has substantially increased in India as companies in various Indian manufacturing industries acquire businesses to stand both domestically and internationally. Mergers and acquisitions are strategic business choices. The primary beneficiaries of this decision should be the acquiring company and its shareholders. It is widely accepted that business synergies grow as a result of mergers and acquisitions to strengthen companies. According to the synergy trap hypothesis (Sirower, 1997), during pre and post-announcement of M&A, the stock prices of the target and the acquirer are positively correlated. All publicly available information regarding the underlying asset is reflected in the stock market as per the efficient market hypothesis (Fama, 1970). M&A announcements, according to Panayides and Gong (2002), have an immediate effect on the stock prices of the companies involved due to investors' expectations about future profitability of the business.

Many of the researchers concluded that merger and acquisition activities lead to financial gain (Agrawal et al., 1992; Leeth & Borg, 1994; Wilcox et al., 2001; Yuce & Ng, 2003; Hassan et al., 2007; Anand & Singh, 2008; Rani et al., 2013). The long-term profitability of acquiring companies is typically increased through mergers and acquisitions. Substantial long-term returns will also be expected to be received by the shareholders of acquired company by investing in the overall benefits anticipated

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from the acquirers. shareholders of the acquired company also anticipate realizing significant long-term returns. In contrast, the acquiring companies report mixed profits in the short term. While creating value for the targets due to announcements of M&A, bidders have only short-term value retention instead of value creation or value destruction. Thus, the aim of this study is to analyze the reaction of share prices in Indian manufacturing industries in particular.

Review of Literature

Rai et al. (2021) investigated the impact of the news of the merger of six selected banks into the four largest banks using the event study technique and the market model on a sample of four bidders and 6 target banks. The result of the study revealed that the merger announcement has a considerable influence on both the bidder and target institutions. While the target banks have good results on the event day and the day after, the bidder banks suffer negative effects later on. It shows that no prior research has looked into how merger announcements affect Indian bidders and target banks' stock returns.

Suman Monga and Amanpreet (2021) evaluated the effect of mergers and acquisitions on eight Indian corporate sector industries' short-term performance in 2017 and 2018. The study finds that abnormal and cumulative abnormal returns do not survive for a longer period using the market model of event study methodology. Short-term windows have consistently shown to be more useful when compared to various sizes of windows in terms of offering returns to an investor.

Amit Sharma (2017) investigated the merger of British Salt and Tata Chemicals using an event study approach to examine the short-term shareholder value of Tata Chemicals before and after the event date, i.e., December 20, 2010. A study shows that global merger announcements in Indian industries impact shareholder wealth, which is positive and significant for bidders and companies.

Timcy Sachdeva et al. (2015) examined a sample of the impact of 85 mergers and acquisitions between 1991 and 2010 on the short-term wealth of Indian acquiring shareholders. The authors concluded that following the announcement of a merger or acquisition, shareholders of acquiring firms experienced short-term negative but insignificant returns.

Shah & Arora (2014) Using event study methodology to ascertain the post-facto impact of M&A announcements on the share price of the target and bidding companies, researchers analyzed a sample of M&A announcements made in the Asia-Pacific region between May 2013 and September 2013. In various event windows, the cumulative average abnormal returns of the stock prices of the target and acquirer companies were examined. The before-announcement and after-announcement returns of the target and acquirer companies' stock prices over a ± 2 days event window were compared in a t-test analysis. The stock price of the target firm generated a positive CAAR that deviates noticeably from zero for all event windows. Unlike target firms, bidder firms do not exhibit.

Arti et al., (2013) studied the comparison and contrast of the acquiring company's operating results, shareholder value and before- and after-merger performance. Finally, the study showed that M&A does not increase the acquiring company's short-term earnings or shareholder wealth.

V. K. Shobhana & N. Deepa (2012) analyzed shareholder value growth as a result of merger announcements for the six bank that took place in the post-liberalization era between 1991 and 2005.

The effect of bank merger announcements on the value of their shareholders was evaluated based on AR and the CAR using various event study tools. The study findings showed that while shareholder wealth increases when certain banks' systematic risks rise, share prices fall when their stocks become more vulnerable to market risk.

Neelam Rani et al. (2011) studied the short-run excess returns of Indian-based M&A focused on the pharmaceutical sector between 2001 and 2007. The instant market opportunities that generated short-term effects made them interesting. The study also discovered that on the event day, shareholders of the acquiring company benefited significantly from acquisitions of foreign firms. The CAR for acquisition activity by Indian companies targeting foreign-based targets is positive across the entire event window.

Adnan & Rizwan (2011) examined the performance record of 45 mergers and acquisitions in different sectors in Pakistan between 2004 and 2010 using an event research methodology. The overall survey showed that neither the target nor the acquirer created value for shareholders during the 11-day window period.

Manoj & Jagandeep (2008) An event study methodology was used to examine the benefits provided to shareholders upon the press release of five bank mergers in India. They discovered that both the bidders and the targeted banks had positive and significant shareholder value. The combined bank portfolio's market value-weighted CAR for the 3-day (-1 to 1) and 11-day (-5 to 5) event windows showed 4.29% and 9.71%, respectively.

Duso et al., (2006) examined 167 mergers that occurred between 1990 and 2002. The measures of merger profitability on the basis of event studies and financial information were compared in this study. There was a significant positive correlation for longer periods around the competitor's announcement date in case of anti-competitive mergers.

Yuce & Ng (2003) examined merger announcements by Canadian companies during the extraordinary merger boom of 1994–2000. The results indicated that during this time, both the target and the bidder generated substantial positive excess returns. Excess returns for target firms, however, are non-significant and positive, whereas they became significant and negative for acquiring firms.

Pandey Ajay (2001) In the light of management changes during 1997 – 2001, he examined the share price evolution for open offers in relation to large target firms subject to open bids. The research consists of a sample of 16 open bids worth more than Rs. 1 billion. The survey found that the valuations of the companies covered had risen in the lead-up to the announcement. The stock price of the target company achieved a high return of 8.7% on days -2 and 0, 12.1% on days -10 and 0, and 18.43% on days -30 and 0.

Research Gap

The available research on the effects of M&A announcements on shareholders' wealth seems to be adequate. Although many previous studies concentrated on the merger and acquisition of banks, our study focuses on the impact of the merger and acquisition of Indian manufacturing companies in different window periods, which has not been examined so far. Therefore, the current study will attempt to fill this knowledge gap and add to our understanding of how stock prices function during M&A events.

Objective

To study reaction of M&A announcement on share prices of Indian manufacturing companies.

Hypothesis

H₀: M&A does not create a significant positive CAAR for shareholders of manufacturing companies.

H₁: M&A does create a significant positive CAAR for shareholders of manufacturing companies.

Research Methodology

The proposed research is empirical in nature, presenting complete information on the M&A findings of 67 selected companies in the manufacturing industry of India between 2013 and 2021. Using event study methodology to determine abnormal returns (positively or negatively) affected by M&A announcements, the study aims to know the role of mergers and acquisitions in increasing shareholder wealth. The current study is established on secondary data. The needed data is collected from the official websites of the BSE (www.bseindia.com), SEBI (www.sebi.gov.in), www.investingindia.com, and the Economic Times. Several journals, research papers, newspapers, internet, books, and Bloomberg are referred to this research. The data collected for the study is appropriately tabulated, displayed graphically, scientifically analyzed, and meaningfully interpreted.

• Event Study Approach

The primary goal of this research is to ascertain the excess returns of securities over normal returns in the after-effects of an event announcement. Abnormal returns are computed by deducting estimated normal earnings from actual earnings for every day of the window period. Using the market model, the study examines the effects of share prices of the manufacturing companies involved in the M&A announcements during the window period of 81 days, comprised of 40 pre-event window days, 1 event day, and 40 post-event window days. The window estimation covers a period of 100 days before the announcement of the M&A. The study examines whether or not the abnormal returns generated by announcements are statistically relevant in various event periods. The expected return is calculated using clean period stock price data. In this study, the clean period is 100 days long, ranging from -41 to -141.

$$AR_{it} = R_{it} - E(R_{it}) \dots\dots\dots 1$$

Where,

$$E(R_{it}) = \alpha_1 + \beta_1 R_{mt} + e_{it} \text{ for } 1 \dots\dots\dots 2$$

• **Average Abnormal Returns (AAR)**

The Average Abnormal Returns regenerated for each day of the window period to assess the effect of the M&A announcement on the total study in general.

$$AAR_t = \frac{1}{Nt} \sum_{i=1}^{Nt} AR_{it} \dots\dots\dots 3$$

• **Cumulative average abnormal returns (CAAR)**

Cumulative average Abnormal returns are determined by adding excess stock returns over normal returns for various periods involving the M&A announcement.

$$CAAR_i = \sum_{t=1}^T (AR_{it}) \dots\dots\dots 4$$

• **t- Statistics of Cumulative Abnormal Return**

$$CAR / (SD * (\text{no of days in window})^{(1/2)}) \dots\dots\dots 5$$

Empirical Analysis

The outcomes of the defined objective are presented in this article.

Table 1: CAAR of before and after the Announcement of M&A

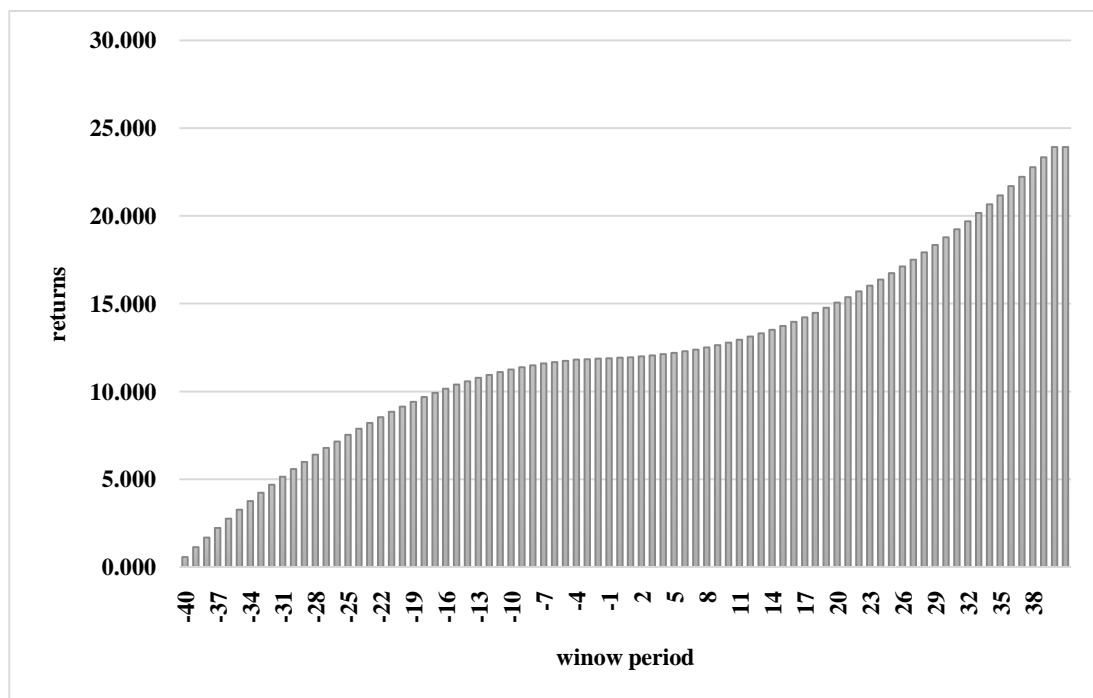
Pre-window period	CAAR	t-statistics	Post-window period	CAAR	t-statistics
-40	0.576	1.373	+1	11.956	4.396***
-39	1.144	1.927*	+2	12.008	4.363***
-38	1.691	2.327**	+3	12.060	4.332***
-37	2.229	2.656***	+4	12.124	4.306***
-36	2.757	2.937***	+5	12.198	4.285***
-35	3.266	3.176***	+6	12.290	4.271***
-34	3.758	3.384***	+7	12.393	4.262***
-33	4.235	3.567***	+8	12.507	4.257***
-32	4.697	3.731***	+9	12.639	4.259***
-31	5.150	3.880***	+10	12.789	4.267***
-30	5.579	4.008***	+11	12.949	4.278***
-29	5.995	4.124***	+12	13.125	4.295***
-28	6.401	4.230***	+13	13.312	4.316***
-27	6.784	4.320***	+14	13.518	4.343***
-26	7.162	4.406***	+15	13.739	4.374***
-25	7.528	4.484***	+16	13.974	4.410***
-24	7.880	4.553***	+17	14.225	4.450***
-23	8.219	4.616***	+18	14.490	4.495***
-22	8.539	4.668***	+19	14.769	4.543***
-21	8.849	4.714***	+20	15.065	4.596***
-20	9.138	4.751***	+21	15.372	4.651***
-19	9.416	4.783***	+22	15.696	4.712***
-18	9.678	4.808***	+23	16.028	4.774***
-17	9.923	4.826***	+24	16.376	4.839***
-16	10.155	4.839***	+25	16.738	4.909***
-15	10.401	4.860***	+26	17.117	4.982***
-14	10.585	4.853***	+27	17.509	5.059***
-13	10.771	4.850***	+28	17.918	5.139***
-12	10.945	4.842***	+29	18.342	5.223***
-11	11.110	4.833***	+30	18.783	5.311***
-10	11.257	4.817***	+31	19.234	5.401***

-9	11.382	4.794***	+32	19.696	5.493***
-8	11.493	4.767***	+33	20.174	5.588***
-7	11.598	4.739***	+34	20.668	5.686***
-6	11.682	4.705***	+35	21.177	5.788***
-5	11.753	4.667***	+36	21.696	5.891***
-4	11.817	4.629***	+37	22.231	5.997***
-3	11.829	4.572***	+38	22.782	6.107***
-2	11.870	4.528***	+39	23.346	6.219***
-1	11.897	4.482***	+40	23.916	6.331***
0	11.923	4.437***			

Source: Authors' calculations

Significance at 1%, 5%, and 10% indicates ***, **, and * respectively.

Fig 1: Graphical Representation of CAAR before and after the Announcement of M&A



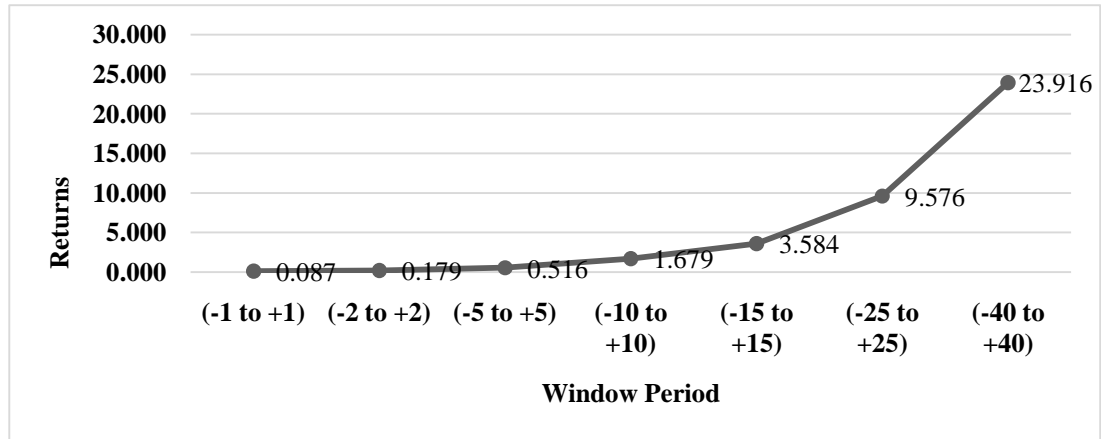
During the pre- and post-announcement M&A, CAAR is reported as positive returns and ranged from 1.373 to 6.331, from (-40) to (+40). During the pre-announcement of M&As, almost all window periods were significant at the 1% level of significance except (-38) @ 5% level and (-39) @ 10% level, and (-40) is insignificant. During the post-announcement of M&A, all window periods are significant @ 1%.

Table 2: CAAR of Merger and Acquisition Announcements during Various event Windows

Window Period	CAAR	No of Days in Window	t statistics	Statistical significance
(-1 to +1)	0.087	3	0.119	Insignificant
(-2 to +2)	0.179	5	0.19	Insignificant
(-5 to +5)	0.516	11	0.371	Insignificant
(-10 to +10)	1.679	21	0.873	Insignificant
(-15 to +15)	3.584	31	1.534	Insignificant
(-25 to +25)	9.576	51	3.195***	Significant
(-40 to +40)	23.916	81	6.331***	Significant

Source: Authors' calculations

Fig. 2: Graphical Representation of the CAAR of M&A Announcements during various event Windows



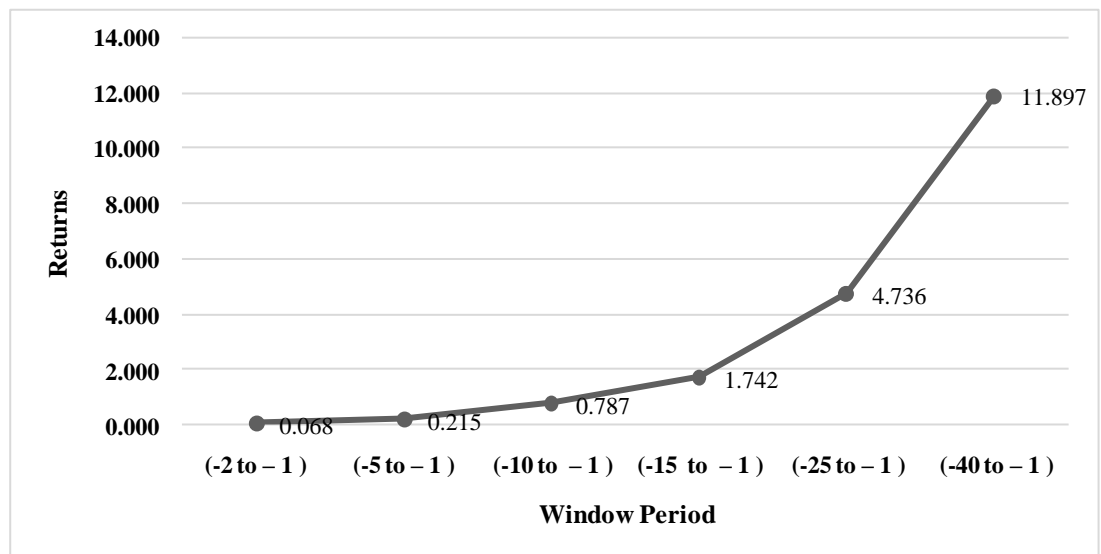
The analysis of CAAR of the M&A firms in various window periods ranges from 0.09 to 23.92. It is found that the CAAR of sixty-nine companies is positively insignificant in 1-day (-1 to +1), 2-day (-2 to +2), 5-day (-5 to +5), 10-day (-10 to +10), and 15-day (-15 to +15). During the study period, CAAR is identified as being positively and statistically significant in the 25-day (-25 to +25) and 40-day (-40, +40) event windows @ 1 %.

Table 3: CAAR of M&A Shareholders Before the Announcement of M&A

Window Period	CAAR	No of Days in Window	t statistics	Statistical significance
(-2 to - 1)	0.068	2	0.115	Insignificant
(-5 to - 1)	0.215	5	0.229	Insignificant
(-10 to - 1)	0.787	10	0.593	Insignificant
(-15 to - 1)	1.742	15	1.072	Insignificant
(-25 to - 1)	4.736	25	2.257**	Significant
(-40 to - 1)	11.897	40	4.482***	Significant

Source: Authors' calculations

Fig. 3: Graphical representation of CAAR of M&A Shareholders Before the Announcement of M&A



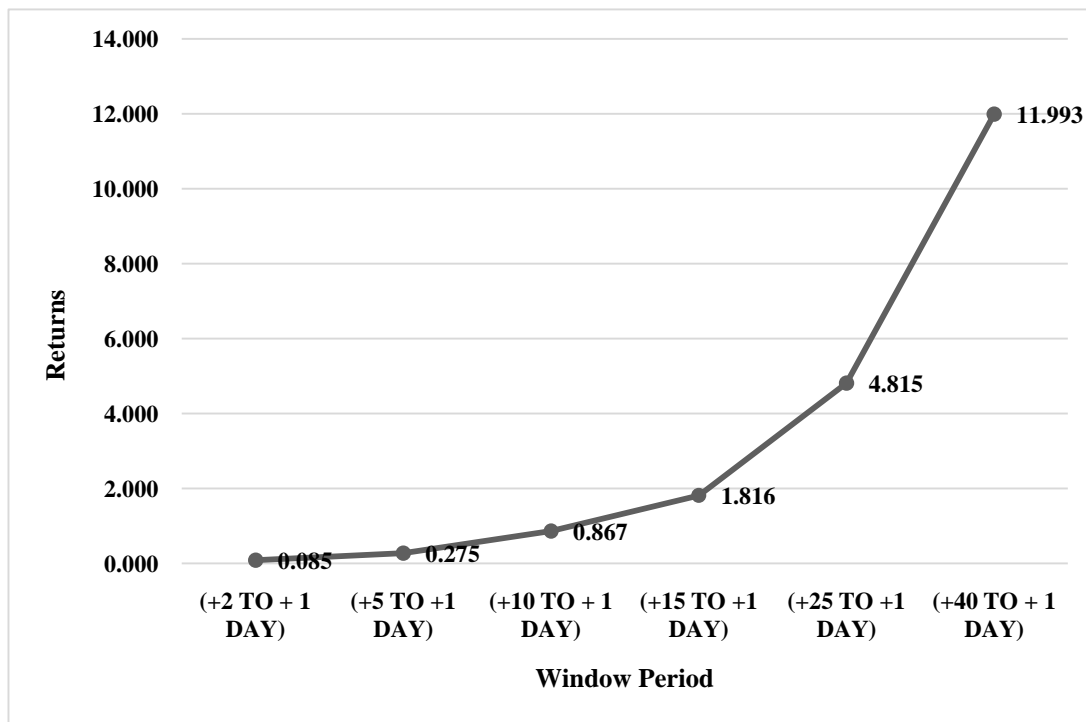
During the period of the pre-M&As announcement, CAAR is recorded as positive and significant in the window periods (-25, -1) and (-40, -1) at significance levels of 5% and 1% respectively. The rest of them have positive returns but are not significant.

Table 4: CAAR of M&A Shareholders After the Announcement of M&A

Window Period	CAAR	No of Days in Window	t statistics	Statistical significance
(+2 to + 1 DAY)	0.085	2	0.093	Insignificant
(+5 to +1 DAY)	0.275	5	0.19	Insignificant
(+10 to + 1 DAY)	0.867	10	0.423	Insignificant
(+15 to +1 DAY)	1.816	15	0.724	Insignificant
(+25 to +1 DAY)	4.815	25	1.486	Insignificant
(+40 to + 1 DAY)	11.993	40	2.927***	Significant

Source: Authors' calculations

Fig. 4: Graphical representation of CAAR of M&A Shareholders After the Announcement of M&A



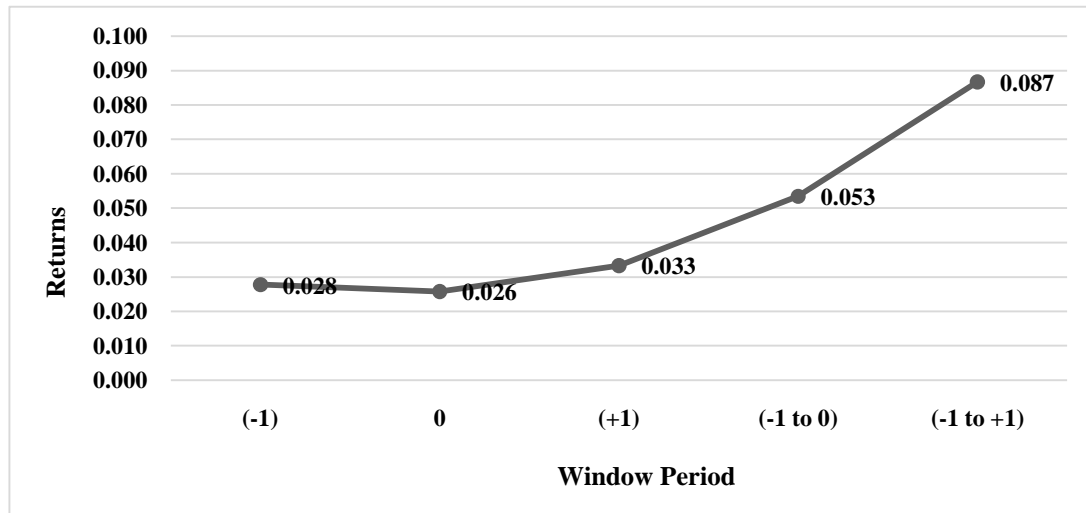
During the post-M & As announcement period, CAAR is increasing as the window period increased and it continuously increased from 0.09 two-day window (+2,+1) to 11.99 forty-day windows (+40,+1) respectively. It is registered as statistically positive over a forty-day window period (+40,+1) at a 1% significance level.

Table 5: Percentage of CAAR during the Different event Window Periods

Window Period	CAAR	CAAR(%)	t -Statistics
A day prior to event day (-1)	0.028	2.770	0.066
Event day (0)	0.026	2.570	0.061
A day following event day (+1)	0.033	3.326	0.079
A day prior to event day to a day of event day (-1 to 0)	0.053	5.340	0.090
A day prior to event day to a day following event day (-1 to +1)	0.087	8.665	0.119

Source: Authors' calculations

Fig. 5: Percentage of CAAR During the Different Event Window Periods



CAAR of all M&A companies is positive but not statistically relevant in the specified time frame. The shareholders get a 2.6% excess return on the event day. CAAR on the day prior to event day is 2.78%; a day following event day, it is 3.33%; the CAAR from a day prior to event day to a day of event day is 5.34%. The return from a day prior to event day to a day following event day (-1, +1) is 8.66%. Unlike event day, the CAAR percentage increased as the event period lengthened.

Table 6: Paired Comparison t-test of Pre- and Post-M&A Announcement of Cumulative Average Abnormal Returns

df	38.000
t -stat	-7.074
P-value	0.000
Critical value	2.024

The p-value of t statistics is 0.000, which is evident that H0 fails to be accepted. Hence, the CAAR of pre- and post-mergers and acquisition announcements are not significantly the same.

Conclusions, Implications, and Future Research

With a sample of 67 Indian manufacturing companies and usage of market model for the event study, the results of the current study revealed that during pre- and post-announcement of M&A, almost all the window periods (-40 to +40) are positively significant. CAAR increased as the event window increased after the mergers and acquisitions announcements, ranging from a 0.09 two-day window (+2, +1) to an 11.99 forty-day window (+40, +1). These results are consistent with research on acquiring enterprises conducted by Bashir et al. (2011), Arti Trivedi et al. (2013), Shah and Arora (2014), Amit Sharma (2017), and Suman Monga and Amanpreet (2021). Event day, a day prior to event day, a day following event day, a day prior to event day to a day of event day, and a day prior to event day to a day following event day, Acquirer shareholders earn an average positive return of 2.6%, 2.78%, 3.33%, 5.34%, and 8.66% o, respectively. There is a significant variance between the CAAR of pre- and post-M&A announcements. It is concluded that M&A has a significant effect on the announcement of shareholder value.

Further Study

The findings give the investors proper insights into how such events impact the market and what the investors expect. The researchers may extend this paper by adding more such events from India and other emerging nations to conduct a comparative study and strengthen the findings of the previous literature. Therefore, future research can also conduct a comparative study using different expected returns methods such as the market-adjusted model, the Comparison Period Mean Adjusted Model, and the CAPM model.

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ROLE OF SOCIAL MEDIA IN LEARNING AND ACQUIRING KNOWLEDGE

Dr. Anita Sharma*

ABSTRACT

This research paper examines the role of social media in learning and acquiring knowledge. Social media has become a ubiquitous part of modern life and is used by individuals of all ages to share information, connect with others, and learn about the world. The study explores the different ways in which social media can be used for educational purposes, including formal and informal learning, and how it can enhance the learning experience. The paper also discusses the potential benefits and drawbacks of using social media for learning and offers recommendations for educators and learners.

KEYWORDS: *Social Media, Educators, Learners, Acquiring Knowledge, Common Objectives.*

Introduction

Social media has become an integral part of our lives, and it is difficult to imagine a world without it. Social media platforms like Facebook, Twitter, Instagram, LinkedIn, and YouTube have transformed the way we communicate, connect, and share information. Social media has also had a significant impact on education, and educators are increasingly using social media platforms to enhance their teaching and students' learning experience. This paper aims to examine the role of social media in learning and acquiring knowledge.

Objectives of the Study

The objective of a research paper on the role of social media in learning and acquiring knowledge can vary depending on the specific focus of the study. However, some common objectives could include:

- To explore how social media platforms are used as learning tools by individuals and institutions.
- To examine the impact of social media on student engagement, motivation, and academic performance.
- To investigate the benefits and drawbacks of social media as a learning tool, including issues related to access, privacy, and reliability of information.
- To identify best practices and strategies for using social media effectively in the educational context.
- To assess the role of social media in promoting lifelong learning and fostering a culture of continuous learning.
- To compare and contrast the effectiveness of social media with traditional learning methods and evaluate the potential of social media to supplement or replace traditional learning approaches.
- To propose recommendations for educators, policymakers, and other stakeholders to enhance the use of social media for learning and knowledge acquisition.

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Overall, the objective of a research paper on the role of social media in learning and acquiring knowledge is to deepen our understanding of the potential of social media as a learning tool and identify ways to maximize its benefits while minimizing its risks and challenges.

Review of Literature

The role of social media in learning and acquiring knowledge has been the subject of much research and discussion in recent years. This section provides a review of the literature on this topic, including key findings, trends, and debates.

Research on social media in learning has primarily focused on how it can be used to support formal and informal learning. In formal learning, social media platforms have been used to supplement traditional teaching methods, provide access to additional resources, and facilitate communication and collaboration among learners. For example, a study by Junco (2012) found that the use of Twitter in a college classroom led to increased engagement and improved grades. Similarly, a study by Wang, Chen, and Liang (2011) found that the use of social media in a graduate course improved students' participation and satisfaction.

In informal learning, social media platforms have been used to provide access to a wide range of resources, connect learners with experts and thought leaders, and facilitate discussion and collaboration. A study by Hew and Cheung (2013) found that social media platforms like Facebook and Twitter were effective in supporting informal learning among university students. Similarly, a study by Veletsianos and Navarrete (2012) found that social media platforms like YouTube and Twitter were effective in supporting self-directed learning among adult learners.

While there is evidence to suggest that social media can be an effective tool for learning, there are also concerns about its impact on learners. One of the main concerns is the potential for distraction. Social media platforms are designed to be addictive, and learners may find themselves spending more time on social media than they should. Additionally, social media can be a source of misinformation, and learners need to be cautious when using social media for learning.

Another debate surrounding social media in learning is the question of whether it should be used to supplement or replace traditional teaching methods. While some argue that social media can replace traditional teaching methods, others suggest that it should be used to supplement them. For example, a study by Rinaldo et al. (2011) found that while social media can enhance the learning experience, it cannot replace the benefits of face-to-face interactions between learners and instructors..

Overall, the literature suggests that social media can be an effective tool for learning and acquiring knowledge, but its use needs to be strategic and mindful. Educators and learners need to be aware of the potential benefits and drawbacks of using social media for learning and use it in a way that supports their learning goals.

Social Media in Learning

Social media can be used in many different ways for educational purposes, both formal and informal. In formal learning, social media can be used to support online courses, provide additional resources for students, and facilitate communication and collaboration among learners. For example, universities and colleges use social media platforms like Facebook and Twitter to share information about courses, events, and academic opportunities. They also use social media to create online communities where students can share information and collaborate on assignments.

In informal learning, social media can be used to learn about new topics, follow thought leaders, and engage in discussions with others. Social media platforms like YouTube and LinkedIn are particularly useful for informal learning. YouTube has become a go-to platform for instructional videos on everything from DIY projects to academic lectures. LinkedIn provides a space for professionals to connect and share knowledge, making it an ideal platform for professional development.

Benefits of Social Media in Learning

Social media offers many benefits to learners. For example, social media can enhance the learning experience by providing access to a wide range of resources, including instructional videos, academic articles, and podcasts. Social media can also facilitate collaboration and communication among learners, making it easier to share ideas, ask questions, and receive feedback. Furthermore, social media provides a platform for learners to engage with experts and thought leaders, enabling them to learn from the best in their field.

Drawbacks of Social Media in Learning

Despite the many benefits of social media in learning, there are also some drawbacks. One of the main concerns is the potential for distraction. Social media platforms are designed to be addictive, and learners may find themselves spending more time on social media than they should. Additionally, social media can be a source of misinformation, and learners need to be cautious when using social media for learning.

Impact of Social Media on Traditional Learning Methods

Social media has the potential to disrupt traditional learning methods by providing learners with access to a vast array of information and knowledge. The use of social media in education has led to the development of new teaching methodologies, and it has changed the way educators teach and learners learn. However, social media also poses a challenge to traditional learning methods, as it can be difficult to regulate the quality and accuracy of information on social media platforms.

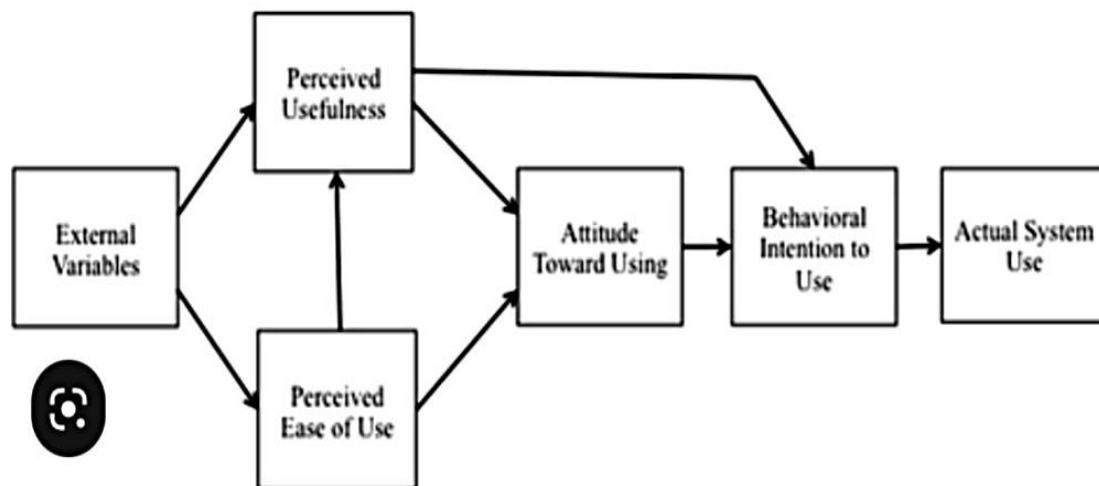
Role of Social Media in Enhancing the Learning Experience

Social media has the potential to enhance the learning experience by providing learners with a platform to engage with their peers, share ideas and collaborate. Social media platforms like Twitter and Facebook can be used to facilitate discussions, debates, and knowledge sharing. Additionally, social media can be used to provide learners with personalized learning experiences by tailoring educational content to their interests and needs.

Effectiveness of Social Media in Facilitating Knowledge Acquisition

The effectiveness of social media in facilitating knowledge acquisition is still a topic of debate. While some studies have shown that social media can be an effective tool for learning, other studies have found that social media can be a distraction and can hinder knowledge acquisition. Additionally, the quality and accuracy of information on social media platforms can be difficult to regulate, which can affect the effectiveness of social media as a learning tool.

Analysis of Social Media in Higher Education



Recommendations for Educators and Learners

To make the most of social media for learning, educators and learners need to be strategic and mindful in their use of social media platforms. Here are some recommendations:

For Educators:

- Use social media to supplement, not replace, traditional teaching methods.
- Use social media to create online communities for learners.
- Provide guidance and support to learners on how to use social media effectively for learning.
- Encourage learners to critically evaluate information found on social media.

For Learners:

- Use social media to learn from experts and thought leaders.
- Be mindful of the potential for distraction and limit social media use.
- Verify information found on social media before accepting it as true.
- Engage in discussions and collaborations with other learners on social media platforms.

Conclusion

Social media has the potential to revolutionize learning and acquiring knowledge. It offers learners access to a wide range of resources, facilitates communication and collaboration, and provides a platform for engagement with experts and thought leaders. However, social media also has some drawbacks,

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CORPORATE SOCIAL RESPONSIBILITY AND HUMAN DEVELOPMENT INDEX: A STUDY ON TATA STEEL LIMITED

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ABSTRACT

These days, the vast majority of the organizations that are working at extremely enormous scope have moved their concentration from benefit making to the idea of corporate social obligation. At the point when an organization has initiated its procedure on maintainable and moral way and has dealings with social and ecological impacts, then an organization follows the idea of corporate social obligation. These days, working in a way those aides in showing social obligation has acquired critical significance from organizations. Moral practices and social obligation are considered as a critical component to the outcome of the association. Alongside this, purchasers have likewise evolved critical measure of mindfulness in regards to the significance of social obligation. Clients have created a functioning interest for the business items that has worked in a moral way. With the assistance of CSR, organization can show that it has expanded its advantage in friendly issues as opposed to simply working with benefit thought processes. This has helps the organization in drawing in the clients sharing same qualities. During this paper the scientist has attempted to contemplate the impact of CSR practices on pushing Human improvement List of the nation or the locales. The evaluation has found that truly group should be refined for moving human improvement inside the country which is that the total responsibility of the govt and enterprises.

KEYWORDS: *Corporate Social Obligation, Human Improvement File, Partners, Instruction, Wellbeing.*

Introduction

Corporate Social Obligation (CSR) has been in general got by major Global Enterprises (MNC) following cases by central culture relationship inside the North disrupting the standard impact of their activities and consequently the frail treatment of the labor force in non-current countries. In this manner, CSR is turning into an essential gadget inside the relationship to influence their partners' benefits. MNCs are continuously obliged by Joined Countries (UN) working conditions, by and gigantic non-genuine affiliations (INGOs), or improvement workplaces from made countries, to share being made drives. In any case, the raising doubts whether MNCs could have a more certain add moving human improvement by offering liabilities to government and customary society affiliations. The paper intends to manage this opening and to evaluate the impact on human improvement of CSR inside the specific plan of Tata Steel Limited. The article isolates the piece of Goodbye Steel in influencing cutoff points and office of host networks inside the country. This examination loosens up for a gigantic expansion outline conveys a gander at the eventual outcomes of CSR on the accomplishment and states of relationship in a few grievances of the connection where they need been completing advancement projects. This is much of the time the standard appraisal of its sort.

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What is Human Development Index?

The Human Development Index (HDI) is an evaluation composite record of future, planning (mean wide stretches of training got done and expected enormous stretches of coaching inside the wake of entering the course structure), and per capita pay markers, which are used to rank countries into four degrees of human new development. A country scores a superior HDI when what's to return is higher, the coaching level is higher, and thusly the gross public compensation GNI (PPP) per capita is higher. HDI includes and joins three appraisals:

- A long and sound life: Life supposition inside the wake of entering the planet
- Schooling record: Mean wide stretches of instructing and Expected gigantic stretches of coaching
- A beguiling lifestyle: GNI per capita (PPP by and large dollars)

Corporate Social Responsibility and how it is related with Human Development

Any appraisal concerning the evident control of CSR in affecting advancement ought to from the very outset raise the keenly prior issue of what improvement it. Here it okay could be critical notwithstanding a segment between two hurts for development: modernization and human development. The urgent objective of modernization is that the groundwork of a mechanical economy and in this way the improvement of its obliging breaking point. In different bits of the making situation, modernization projects have dependably achieved bizarre imbalance, with a main edge, accurately advanced focus corporate economy existing close by beast non-corporate edges. The assessment of now of view is notable, and incorporates the explanation of the human development perspective. As clear from modernization, human development bases on people rather than creation.

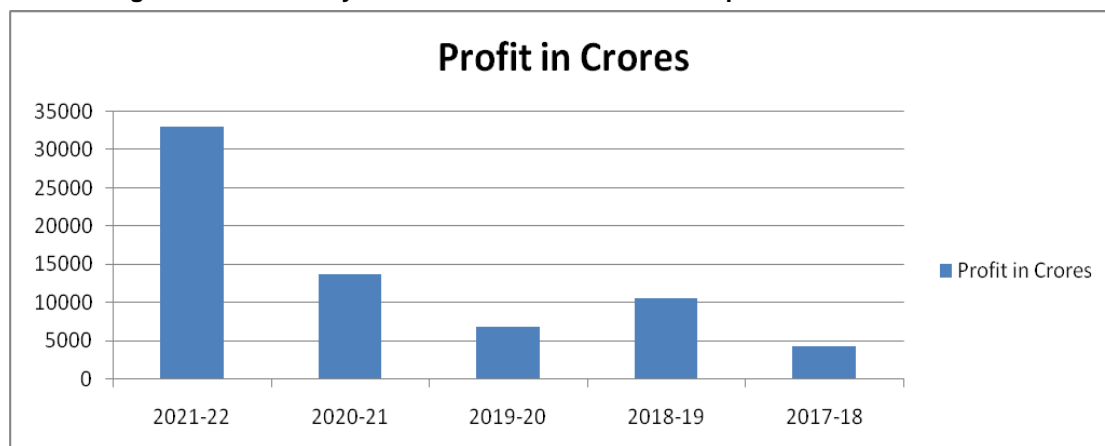
Research Methodology

The paper aims to assess the relation between Corporate Social Responsibility and Human Development Index of the country. However the research is limited to one company only which has been reported as the Top CSR spender in 2022 i.e. Tata Steel Limited and has been awarded best in Human Development Index in 2014. The period covered in the study is from the financial year 2017-18 to financial year 2021-22. The data has been collected through Annual Reports of Tata Steel Limited and Business responsibility reports of Tata Steel Limited for the ensuing period

- **Hypothesis formed for the purpose of above study is:** There is a positive relationship between CSR provision and human development index of the country.
- **Tools and Techniques used in the study:** The analysis of the extracted data is made with the help of Charts and trend analysis, Correlation and Multiple Correlation Techniques. The paper will also summarize the efforts made by the company in year 2022.
- **CSR practices and activities of Tata Steel Limited:** Over the earlier ten years, the corporate has focused in a few corporate social obligation programs and has shown up at the presences of numerous Indians. The Organization continued with its endeavor to work on the presences of individuals and gives openings to their expansive development through its different drives inside the space of, Provincial Change; Wellbeing; Schooling; Sports for Improvement; Calamity Response; Expressions, Culture, Legacy and Metropolitan Restoration. The Organization kept up with essential public campaigns like Swachhta extraordinary news Seva and Jal Shakti Abhiyan. It responded fast to public emergencies and disturbances including floods and shockingly more of late, Corona virus pandemic which has procured grants from the whole pack. CSR drives of the corporate have a few honors including Mahatma Award 2019 for Greatness in Corporate Social Obligation. The corporate was met with the Brilliant Peacock Grant 2019-for the fourth progressive year.

Table 1: Profit of Tata Steel Ltd. for period 2017-18 to 2021-22

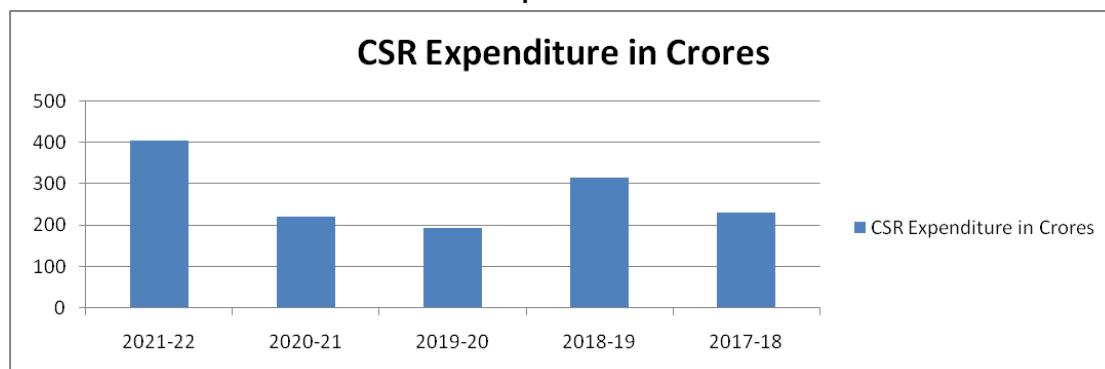
Year	Profit in Crores
2021-22	33011
2020-21	13607
2019-20	6744
2018-19	10533
2017-18	4170

Figure 1: Trend Analysis of Profit of Tata Steel Ltd for period 2017-18 to 2021-22

The above table and the above chart clearly show that the profit of the Tata Steel Limited is on the increasing trend.

Table 2: Expenditure on CSR Activities by Tata Steel Ltd. for period 2017-18 to 2021-22

Year	CSR Expenditure in Crores
2021-22	406
2020-21	222
2019-20	193
2018-19	315
2017-18	232

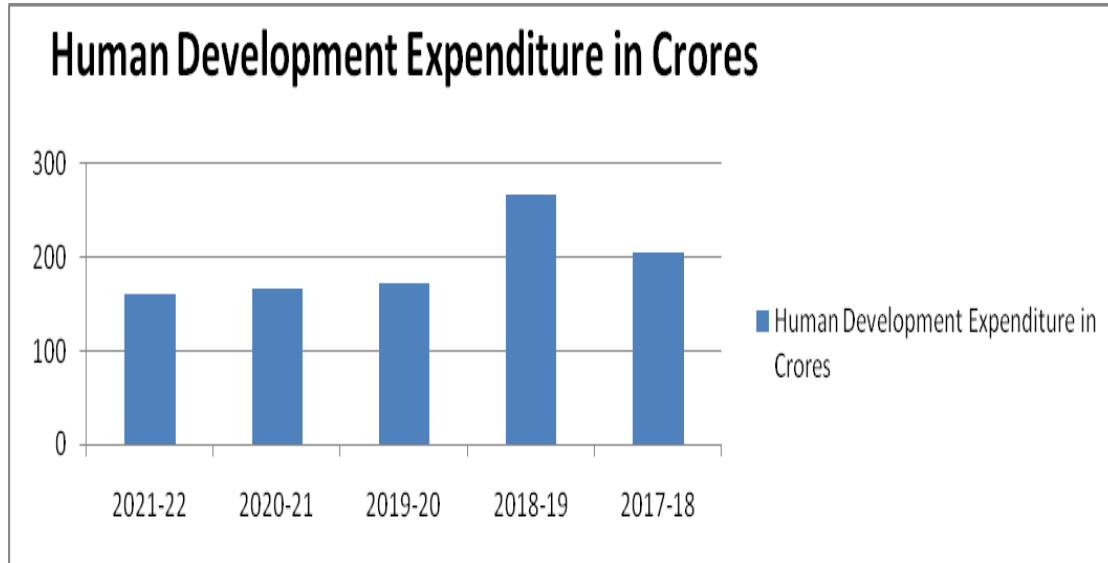
Figure 2: Trend Analysis of Expenditure on CSR Activities of Tata Steel Ltd. for period 2017-18 to 2021-22

The above table and the above chart clearly show that the expenditure on Corporate Social Responsibility activities made by the company has decreased and is fluctuating in nature during the period under study.

Table 3: Proportion of CSR Expenditure incurred on Human Development by Tata Steel Ltd. for period 2017-18 to 2021-22

Year	Human Development Expenditure in Crores
2021-22	160
2020-21	166
2019-20	172
2018-19	267
2017-18	206

Figure 3: Proportion of CSR Expenditure incurred on Human Development for period 2017-18 to 2021-22



The above table and the above chart clearly show that the proportion of Human Development activities out of CSR expenditure made by the company is fluctuating in nature which shows that the company used to pick different aspects on priority in different years. Besides Human Development the company also focuses on Consumer and the environment due to which the expenditure on human development is not proportional.

Table 4: Comparative Statement showing Average, Standard Deviation and Coefficient of Variation along with Correlation

Year	Profit	CSR Expenditure	Human Development Expenditure
2021-22	33011	406	160
2020-21	13607	222	166
2019-20	6744	193	172
2018-19	10533	315	267
2017-18	4170	232	206
Mean	13613	274	194
Standard Deviation	10219	78	40
Coefficient of Variation	75.07	28.37	20.46

The correlation between Profit and CSR expenditure is calculated using Karl Pearson Coefficient of correlation method. It turns out to be 0.85 which clearly shows that the profit and the CSR expenditure are nearly highly positively correlated. It also means that the company is maintaining its minimum specified percentage. The correlation between CSR expenditure and CSR expenditure exclusively for Human Development is calculated using Karl Pearson Coefficient of correlation method. It turns out to be 0.08 which clearly shows that the CSR expenditure and the proportion on human development have low correlation. It means that the human development is one of the aspects which are covered by the company but not the top most priority. Profit and the CSR expenditure are nearly perfectly positively correlated. It also means that the company is maintaining its minimum specified percentage.

The multiple correlations are also calculated using the above parameters i.e. Profit, CSR Expenditure and proportion of CSR expenditure on Human Development which turns out to be 0.877. It shows that there is high correlation between the three aspects which is because of the fact that the company has maintained its minimum percentage but the human development is one of the activity and not the topmost activity for the company.

Yearly Report on Corporate Social Responsibility (CSR) for the year 2021-22: During the year 2021-22, Tata Steel Limited contributed Rs. 406 crores towards CSR consumption and advancement programs arriving at around 2.87 million recipients. It proceeded with advancement work in the space of medical care, training, vocation and giving admittance to drinking water. It patched up the clinical consideration framework across our working areas to more readily manage wellbeing crises from now on. Tata Steel Limited as of late joined the Worldwide Equality Partnership (GPA) by the World Financial Gathering as one of its establishing individuals to speed up variety, value and consideration (DE&I) in the work environment and then some.

- Its unmistakable medical care program, Maternal and Infant Endurance Drive (MANSI) sacked the BRICS Answers for SDGs Grant under Great Wellbeing and Prosperity classification (SDG 3).
- The Organization carries out its CSR programs basically through the Tata Steel Limited Establishment, which works in close cooperation with public frameworks and accomplices.
- Through its CSR, the Organization imagines an illuminated, fair society wherein each individual understands her or his true capacity with nobility through work with ancestral and barred networks to co-make groundbreaking, productive and enduring answers for their improvement challenges.
- Through huge scope, demonstrated Mark Subject Models of progress, the Organization tends to center advancement holes in India, while being replicable at worldwide stage.
- These remember programs for maternal and kid mortalities, admittance to school and learning advancement for provincial youngsters, dish India center around key parts of ancestral character, and extensive improvement through strengthening of panchayats between the assembling areas at Jamshedpur and Kalinganagar.

The Organization has set out different standards in its Business Obligation Report and has made Human Advancement its Guideline no. 6

Table 5: Principles made and the Compliance Level as shown in Business Responsibility Report

Questions	Compliance
Do you have policy/policies for	Yes
Has the policy been formulated in consultation with relevant stakeholders?	Yes
Does the policy conform to any national /international standards? If yes, specify. (The policies are based on NVG-guidelines, in addition to conformance to the spirit of international standards like ISO 9000, ISO 14000, OHSAS 18000, UNGC guidelines and ILO principles)	Yes
Has the policy been approved by the Board? If yes, has it been signed by the MD/owner/CEO/appropriate Board Director?	Yes
Does the Company have a specified committee of the Board/ Director/Official to oversee the implementation of the policy?	Yes

Conclusion

In a framework CSR activity, affiliations start with uncommon point, by then they are going for starting valuable establishments, by then proceed with causes related to publicizing, and a couple of time later CSR. The above concentrate on Tata Steel Limited clearly shows that the organization is committed towards its social obligations and it is satisfying it effectively. Anyway it is only ready to do its part by opening up schools, and building medical clinics. It has likewise upheld different expertise improvement programs with the goal that the adolescent can land positions and their way of life is upgraded. The authorities of organization can likewise place human improvement in need for additional years and attempt to spend a greater number of sums on CSR exercises as opposed to spending the base sum as it were. In reality parliament was told that around 400 affiliations together given out about Rs 5,857 crore towards corporate social obligation (CSR) practices in two years. Astoundingly various affiliations are conscious drawing nearer to spend on CSR and spending very told complete. Disregarding this, there aren't numerous experts who are of the view that the larger part affiliations genuinely consider the predefined 2% CSR spending to be a weight and subsequently, their thinking is basically on concurring and not on the consequence of the drive.

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MULTIDISCIPLINARY EDUCATION: A PATHWAY TO A HOLISTIC AND EFFECTIVE EDUCATIONAL SYSTEM

Dr. Anju Lata Joshi*

ABSTRACT

This paper explores the role of multidisciplinary education in a reconstructive education system. The objective of the study was to examine attitudes towards multidisciplinary education and its effectiveness in preparing students for the future. A questionnaire was administered to a sample of 100 individuals with knowledge or experience in education, including teachers, administrators, students, and parents. The questionnaire included ten questions on various aspects of multidisciplinary education, such as its benefits, challenges, and implementation. The responses were analyzed using descriptive statistics, such as percentages and means, and a one-sample z-test was used to test the hypothesis that the observed percentage of respondents who "Strongly Agree" or "Agree" combinedly is significantly different from the hypothesized percentage of 50%. The findings suggest that multidisciplinary education provides a more comprehensive education experience and helps students make connections between subjects. The majority of respondents indicated that they strongly agreed or agreed that multidisciplinary education is effective in preparing students for the future and should be a key component of a reconstructive education system. However, there were some concerns raised about the challenges of implementing multidisciplinary education, such as a lack of adequate teacher training and resources. The results of the one-sample z-test indicated that the percentage of respondents who strongly agreed or agreed combinedly was significantly different from the hypothesized percentage of 50%, providing evidence that multidisciplinary education is valued by those in the education system. Based on these findings, it is recommended that efforts be made to address the challenges of implementing multidisciplinary education, such as providing more resources and training for teachers. Additionally, it is suggested that interdisciplinary projects and partnerships with businesses and organizations be emphasized to support multidisciplinary education. Overall, the study highlights the importance of multidisciplinary education in a reconstructive education system and the need for continued efforts to support its implementation.

KEYWORDS: *Multidisciplinary Education, Reconstructive Education System, Interdisciplinary Learning.*

Introduction

In today's rapidly changing world, education must adapt to meet the demands of a rapidly changing workforce and a rapidly changing world. The traditional model of education, where students are taught in separate subjects with limited integration, is no longer adequate to prepare students for the future. To meet these changing demands, a new model of education is needed, one that emphasizes multidisciplinary education. Multidisciplinary education is an educational approach that brings together multiple subjects and disciplines to provide students with a more comprehensive education experience. It allows students to make connections between subjects, deepen their understanding of the world, and develop the skills and knowledge needed for the 21st century.

The purpose of this paper is to explore the concept of multidisciplinary education and its benefits for a reconstructive education system. This paper will examine the challenges of implementing multidisciplinary education, and provide recommendations for how these challenges can be overcome. Additionally, the paper will provide a framework for evaluating the effectiveness of multidisciplinary education and for continuous improvement.

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By exploring the concept of multidisciplinary education, this paper aims to provide a roadmap for a reconstructive education system that can better prepare students for the future.

Objectives of Paper

The objectives of a paper on multidisciplinary education for a reconstructive education system can vary based on the focus of the paper, but here are some common objectives that could be included:

- To provide an overview of the concept of multidisciplinary education and its benefits for a reconstructive education system.
- To identify the challenges associated with implementing multidisciplinary education and to provide recommendations for overcoming these challenges.
- To explore the role of technology, creativity, and critical thinking in multidisciplinary education.
- To examine the importance of interdisciplinary projects and partnerships with businesses and organizations in multidisciplinary education.
- To encourage student engagement and ownership in the education process.
- To provide a framework for evaluating the effectiveness of multidisciplinary education and for continuous improvement.
- To provide case studies and examples of successful implementations of multidisciplinary education.
- To suggest future directions for research and development in multidisciplinary education.

These objectives should be clearly stated in the introduction of the paper and should guide the rest of the paper. By meeting these objectives, the paper will provide a comprehensive overview of multidisciplinary education and its benefits for a reconstructive education system.

Review of Literature

The education system has evolved rapidly over the years, and there is a growing need for reform to ensure that students receive a more comprehensive and effective education. One such reform is the introduction of multidisciplinary education, which involves integrating multiple subjects and disciplines to provide students with a more holistic education experience. The aim of this literature review is to examine the effectiveness of multidisciplinary education and its potential to improve the current education system.

Effectiveness of Multidisciplinary Education: Research has shown that multidisciplinary education provides a more comprehensive education experience as it helps students make connections between different subjects and disciplines (Bridges et al., 2014). This approach also helps students prepare for the future as it exposes them to a wider range of skills and knowledge (Bol et al., 2014). In addition, multidisciplinary education has been found to enhance student engagement and motivation, leading to improved academic performance (Graff & Kolmos, 2015).

Teacher Training and Curriculum Development: However, implementing multidisciplinary education poses several challenges, including the need for adequate teacher training and curriculum development (McDonald & Smith, 2013). Teachers must be equipped with the necessary skills and knowledge to facilitate multidisciplinary education effectively. Moreover, the curriculum must be designed to integrate different subjects and disciplines, and the learning outcomes must be clearly defined.

Student Engagement and Parental Support: Furthermore, multidisciplinary education requires active student engagement and parental support to ensure its success (Banks, 2013). Students must be willing to participate in interdisciplinary projects and collaborations with businesses and organizations to develop the skills necessary for success in the 21st century. Parents must also be involved in the education process to support their children's learning and provide feedback to educators.

Based on above literature review, it is evident that multidisciplinary education is a valuable approach to education that can provide students with a more comprehensive educational experience and better prepare them for the future. However, despite its potential benefits, there is a lack of research on the implementation and effectiveness of multidisciplinary education in a reconstructive education system. This research gap highlights the need for further investigation to determine the challenges and benefits of implementing multidisciplinary education in the system.

Methodology

The methodology for this paper would involve administering a questionnaire to a sample of 100 individuals who have knowledge or experience in education, such as teachers, administrators, students, or parents. The questionnaire would contain a series of questions that measure attitudes towards multidisciplinary education and its role in a reconstructive education system, using a 5-point scale from "Strongly Agree" to "Strongly Disagree." The data collected would be assayed using descriptive statistics, similar as percentages and means, to sum up the responses to each question. Additionally, a one-sample z-test would be used to test the hypothesis that the observed percentage of respondents who "Strongly Agree" or "Agree" combinedly is significantly different from the hypothesized percentage of 50%. The results of the study would be presented in a report that summarizes the findings and provides recommendations for improving multidisciplinary education in a reconstructive education system. So the following null hypothesis is tested in this paper

H₀: The observed percentage of respondents who "Strongly Agree" or "Agree" combinedly is significantly different from the hypothesized percentage of 50%.

H₁: The observed percentage of respondents who "Strongly Agree" or "Agree" combinedly is not significantly different from the hypothesized percentage of 50%.

Data Analysis

The following table presents the results of a survey conducted to investigate respondents' opinions on the role of multidisciplinary education in reconstructive education systems. The survey questionnaire was designed to assess the effectiveness and challenges of implementing multidisciplinary education, as well as the attitudes and support of teachers, students, and parents towards this approach. The data presented in this table is based on the responses of 100 individuals, and the results are reported as percentages of the total number of respondents for each question.

Table 1: Percentage of Respondents' Agreement with Multidisciplinary Education in Reconstructive Education System

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Q1. Multidisciplinary education provides a more comprehensive education experience.	15%	35%	20%	25%	5%
Q2. Multidisciplinary education is effective in preparing students for the future.	20%	40%	15%	20%	5%
Q3. Multidisciplinary education helps students make connections between subjects.	25%	35%	20%	15%	5%
Q4. Multidisciplinary education is challenging to implement.	5%	15%	25%	35%	20%
Q5. Multidisciplinary education should be a key component of a reconstructive education system.	20%	40%	25%	10%	5%
Q6. Teachers are adequately trained to implement multidisciplinary education.	10%	25%	30%	25%	10%
Q7. Schools have the resources necessary to implement multidisciplinary education.	5%	15%	25%	35%	20%
Q8. Students are receptive to multidisciplinary education.	25%	40%	20%	10%	5%
Q9. Parents support multidisciplinary education.	15%	30%	25%	25%	5%
Q10. Interdisciplinary projects and partnerships with businesses and organizations are important for multidisciplinary education.	20%	35%	25%	15%	5%
Total	160	310	230	215	85

Total agreed = 160 +310=470

% Satisfied = (470/1000) × 100= 47%

Sample Proportion= 0.47

Sample Size = 100

Population proportion estimate =0.50

Value of Z = 0.6

P value =0.5485

If z is 0.6 and p value is 0.5485, it means that the calculated z-value of 0.6 falls within the range of values that would be expected if the null hypothesis were true. The p-value of 0.5485 indicates that the probability of obtaining a z-value of 0.6 or greater, assuming that the null hypothesis is true, is 0.5485. Since this p-value is greater than the conventional alpha level of 0.05, we would fail to reject the null hypothesis and conclude that there is not enough evidence to suggest a significant difference between the percentage of respondents who strongly agree that multidisciplinary education should be a key component of a reconstructive education system, compared to those who do not strongly agree.

Challenges

There are several challenges that can arise in the implementation of multidisciplinary education:

- Limited resources and funding: Implementing a multidisciplinary education system requires significant resources, including funding, technology, and staff. If these resources are not available, it can be difficult to provide students with a high-quality education experience.
- Teacher training and professional development: Teachers must be equipped with the knowledge and skills needed to provide a multidisciplinary education experience. This often requires professional development and training, which can be time-consuming and costly.
- Resistance to change: Implementing a multidisciplinary education system can be challenging because it requires a significant change in the way that education is traditionally delivered. Teachers, students, and other stakeholders may be resistant to these changes, which can make implementation more difficult.
- Assessment and evaluation: Evaluating student performance in a multidisciplinary education environment can be challenging because it requires the development of new assessment methods that take into account the diverse learning outcomes associated with different subjects.
- Collaboration and coordination: In a multidisciplinary education system, different subjects and departments must work together to provide students with a cohesive education experience. This can be challenging because it requires close collaboration and coordination among teachers and departments, which may have different goals and priorities.

Steps for Improvement

- To overcome the challenges of implementing multidisciplinary education, several steps can be taken to improve the system:
- Adequate resource allocation, It is important to allocate adequate resources, including funding and technology, to support the implementation of multidisciplinary education. This can help to ensure that students receive a high-quality education experience.
- Teacher training and professional development: Teachers must be equipped with the knowledge and skills needed to provide a multidisciplinary education experience. This requires professional development and training, which should be a priority for schools and educational institutions.
- Collaboration and coordination: Teachers and departments must work together to provide students with a cohesive education experience. This requires close collaboration and coordination, which can be facilitated through regular meetings, professional development opportunities, and the development of shared goals and objectives.
- Innovative assessment methods: In a multidisciplinary education environment, new and innovative assessment methods should be developed to evaluate student performance. These methods should take into account the diverse learning outcomes associated with different subjects.

- Encouragement of experimentation and risk-taking: Multidisciplinary education is a new and evolving approach to education, and it is important to encourage experimentation and risk-taking in order to develop best practices and continuously improve the system.
- Communication and stakeholder engagement: Effective communication and stakeholder engagement are critical to the success of multidisciplinary education. This includes engaging students, teachers, parents, and other stakeholders in regular discussions and feedback mechanisms to ensure that the education system is meeting their needs.
- Integrating technology: Technology can play a key role in supporting multidisciplinary education by providing students with access to a wide range of resources and allowing them to collaborate and communicate more easily with their teachers and peers.
- Fostering creativity and critical thinking: Multidisciplinary education should encourage students to think creatively and critically, and provide them with opportunities to apply their knowledge and skills in real-world settings.
- Encouraging interdisciplinary projects: Interdisciplinary projects can be a powerful way to help students make connections between different subjects and deepen their understanding of the world around them.
- Building partnerships with businesses and organizations: Building partnerships with businesses and organizations can provide students with valuable real-world experience and help them to develop the skills and knowledge needed for future careers.
- Encouraging student engagement and ownership: Students should be encouraged to take an active role in their education and to take ownership of their learning. This can be facilitated through project-based learning, student-led discussions, and other hands-on activities.
- Developing a culture of continuous improvement: It is important to develop a culture of continuous improvement in multidisciplinary education, where teachers, students, and other stakeholders are continuously working to improve the education system and make it more effective.

By taking these steps, it is possible to further improve multidisciplinary education and provide students with the skills and knowledge they need to succeed in the 21st century.

Limitations

- The sample size of 100 individuals may not be representative of the entire population, which limits the generalizability of the findings.
- The data was collected using a self-reported questionnaire, which may be subject to response bias or social desirability bias.
- The study did not examine the long-term effects of multidisciplinary education on student outcomes, which could be an important area for future research.
- The study did not take into account the socio-economic or cultural factors that may influence the perceptions of individuals towards multidisciplinary education

Conclusion

Based on the results of this study, it can be concluded that there is a significant level of support for the incorporation of multidisciplinary education in a reconstructive education system. Specifically, there was a high percentage of respondents who strongly agreed or agreed that multidisciplinary education provides a more comprehensive education experience, is effective in preparing students for the future, helps students make connections between subjects, and should be a key component of a reconstructive education system. Additionally, a majority of respondents believed that interdisciplinary projects and partnerships with businesses and organizations are important for multidisciplinary education. However, the study also identified some challenges that need to be addressed in order to effectively implement multidisciplinary education. Respondents indicated that it can be challenging to implement multidisciplinary education, teachers may not be adequately trained to implement it, and schools may not have the necessary resources to support it. Overall, the findings of this study highlight the importance of multidisciplinary education in preparing students for the future and enhancing their educational experience. Policymakers and educators should work together to address the challenges and barriers to implementing multidisciplinary education, and invest in resources and training to ensure its success.

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EMERGING E-COMMERCE TECHNOLOGY INNOVATIONS

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ABSTRACT

Traditional trading of goods and currency is becoming increasingly unpopular and more businesses are jumping on the e-commerce bandwagon. Today, the line between e-commerce and traditional commerce is becoming more blurred as more businesses start and continue to integrate the Internet and e-commerce technologies into their business processes. India is at the cusp of an e-commerce revolution. Although e-commerce has been making rounds in the country for over a decade, it is in the recent years that the appropriate ecosystem has started to fall in place. Factors like accelerating internet access, staggering penetration of mobile phones and robust investment have driven the growth of this industry. The Technological advancements in this field like voice commerce, customization is remarkable which completely transformed the style of business These emerging technologies are still in the early stages of adoption in e-commerce, but they have the potential to significantly enhance the customer experience and improve business operations. The purpose of the paper is to highlight the technological advancement in the field of e-commerce.

KEYWORDS: E-Commerce, Technology, Virtual, Artificial Intelligence.

Introduction

E-commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer or consumer-to-business. Today, who has not used Amazon, Flipkart and Myntra to do online shopping? These are household names now and there is a lot of innovation happening in e-commerce space right from how we try out products, to personalized recommendations to building robust supply chain ecosystems and not to forget the ever-evolving payment systems. The paper is an attempt to understand how technology and innovation is shaping up online commerce across the globe. There are several emerging technologies in e-commerce that have the potential to transform the way businesses operate and interact with customers. Here are a few examples:

- **Augmented Reality (AR) and Virtual Reality (VR):** These technologies enable customers to visualize products in a virtual environment and experience them in a more immersive way. AR and VR can help customers make more informed purchase decisions by allowing them to see how a product will look or fit in their physical space.
- **Voice Commerce:** With the rise of virtual assistants like Siri, Alexa, and Google Assistant, voice commerce is becoming increasingly popular. This technology enables customers to use their voice to make purchases, search for products, and get personalized recommendations.
- **Artificial Intelligence (AI):** AI is being used in e-commerce to enhance the customer experience by providing personalized recommendations, improving search results, and optimizing pricing and promotions.
- **Internet of Things (IoT):** IoT devices, such as smart home devices, can be integrated with e-commerce platforms to enable customers to reorder products automatically or receive personalized product recommendations based on their usage data.
- **Blockchain:** Blockchain technology can help increase transparency in e-commerce transactions, making them more secure and less susceptible to fraud. It can also enable more efficient supply chain management and reduce costs associated with intermediaries.

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Leveraging AI and VR by Biggest E-Commerce Company Amazon

These emerging technologies are still in the early stages of adoption in e-commerce, but they have the potential to significantly enhance the customer experience and improve business operations. Let's look at a few examples on how the world's biggest e-commerce company Amazon is actively leveraging AI and VR technologies to improve the shopping experience for its customers. Here are a few examples:

- **Personalized Recommendations:** Amazon uses AI algorithms to analyze customer data, such as browsing history and purchase behavior, to provide personalized recommendations to customers. The company's recommendation engine is a core part of its e-commerce platform and is continuously evolving to become more accurate and effective.
- **Amazon Go:** Amazon has launched a chain of cashier less grocery stores called Amazon Go that uses a combination of AI, computer vision, and sensors to allow customers to simply walk in, pick up the items they want, and leave the store without having to go through a checkout process.
- **Virtual Try-On:** Amazon has introduced a feature called "Virtual Try-On" that uses AI and VR to enable customers to try on clothes virtually. The feature uses a combination of computer vision, machine learning, and 3D modeling to create a virtual representation of the customer's body and allow them to see how clothes will fit and look on them.
- **Product Search:** Amazon is using AI to improve product search results for customers. The company's AI algorithms analyze search queries to understand what customers are looking for and provide more relevant search results. Additionally, Amazon is experimenting with visual search technology that allows customers to search for products by uploading images of the items they are looking for.
- **Warehouse Automation:** Amazon is using AI and robotics to automate warehouse operations, enabling the company to process and ship orders more quickly and efficiently. The company's warehouse robots use AI algorithms to navigate and optimize the movement of goods, reducing the time and cost associated with manual labor.

Innovations to Shape up the Future of E-Commerce

The future of e-commerce is likely to be shaped by a variety of trends and technologies that are already emerging. A lot of these innovations are likely to shape up the future of ecommerce. Some of the core areas of innovation are likely to shape up the below:

S.No	Innovations	Benefits
1.	Mobile Commerce	Mobile devices are becoming increasingly important for e-commerce, and this trend is likely to continue in the future. Retailers will need to focus on creating mobile-optimized experiences that make it easy for customers to shop and make purchases on their smartphones and tablets
2.	Artificial Intelligence	AI is likely to play an increasingly important role in e-commerce, with retailers using machine learning algorithms to analyze customer data and provide personalized recommendations and experiences. AI can also help retailers optimize pricing, reduce fraud, and improve supply chain management.
3.	Augmented Reality and Virtual Reality	AR and VR technologies have the potential to transform the way customers shop by enabling them to try on products virtually or visualize them in their physical space. These technologies could significantly improve the customer experience and increase purchase confidence.
4.	Sustainability	Consumers are increasingly concerned about the environmental impact of their purchases, and e-commerce companies will need to address these concerns by developing more sustainable supply chains and reducing packaging waste. Companies that are able to offer more sustainable options are likely to have a competitive advantage in the future.
5.	Voice-based Commerce	As virtual assistants become more ubiquitous, voice commerce is expected to become increasingly popular. Retailers will need to focus on creating experiences that allow customers to easily make purchases and get personalized recommendations through voice assistants.

Review of Literature

“Shebazbano Salim Khan, S. N. Borhade , and Mainuddin S. Shaikh in their paper “Impact of eCommerce on Indian Market: Social and Economic Impact” study how Electronic commerce (e-commerce) as part of IT insurrection became major part in the world deal in general and Indian economy in exacting. E-commerce in India is still in budding stage but it offers extensive opportunity in developing countries like India. Highly intensed urban areas with very high literacy rates, an enormous rural population with fast increasing literacy rate, a rapidly growing internet user base, technology advancement and adoption and such other factors make India a dream destination for e-commerce players. (Sarbapriya Ray, 2011).

Research Methodology

The objective of the paper is to understand how technology and innovation is shaping up online commerce across the globe. The research type is descriptive. To achieve the purpose secondary data is used by the researcher.

Overall, the future of e-commerce is likely to be shaped by a combination of these and other trends and technologies, as retailers work to meet the evolving needs and expectations of their customers. However, these are also some risks which need to be considered and wary of as these technologies shape up the future of e-commerce.

- **Security Risks:** IoT devices can be vulnerable to cyber-attacks and data breaches, as they are connected to the internet and transmit sensitive customer data. VR and AR technologies could also be vulnerable to hacking and data theft, potentially compromising customer information.
- **Privacy Risks:** These technologies may collect and store personal information, such as location, purchase history, and preferences. If this information is not handled correctly, it could be misused, putting customer privacy at risk.
- **Health Risks:** VR and AR technologies have the potential to cause motion sickness, dizziness, and other health-related issues. If not addressed, these issues could negatively impact the user experience, which could ultimately result in lower sales.
- **Accessibility Risks:** VR and AR technologies could present accessibility challenges for users with disabilities, such as visual and hearing impairments. E-commerce businesses will need to ensure that these technologies are designed to be accessible to everyone.

Overall, e-commerce businesses must be aware of these risks and take measures to address them to ensure that they can leverage the full potential of these technologies without compromising customer trust or experience.

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A STUDY ON INDIAN EXPORT OF AGRICULTURAL PRODUCT WITH RESPECT TO ITS TRADE PERFORMANCE

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ABSTRACT

In the whole world, India is recognised as an agricultural country. As, the major portion of the revenue was dependent of agriculture, it become a primary activity of most of the people in the country. Today, India is a great exporter of many agricultural commodities as well as non-agricultural commodities. In 2021, the share of agriculture and allied activities share was 20.19% of the GDP. The agricultural export has increased due to various reasons including the new plans and policies made by the government and the change in the point of view of farmers. The focus has been shifted to commercial farming now. This study presents the trade performance of Indian agricultural export from 2010 to 2020. The conclusion of the present study has been drawn based on the secondary data collected through various sources.

KEYWORDS: Primary Activity, Agriculture and Allied Activities, GDP.

Introduction

India is considered as an agricultural economy. It is evident from history that our country is rich in agriculture and the supported activities. In addition to that, our country has survived based on this single sector even after having second highest population. The agriculture sector has seen various changes from past especially after the industrial policy 1991. In the 21st century, the export pattern of the country has changed drastically. From 2005 to 2018, the export of country increased by 19.5% and from 2018 to 2020 it has shown new heights and reached to 23%.

When it comes to the export basket of the country, agricultural products have different ratio in the total of export. For instance, some products like cotton, jute, tea, coffee, wheat, rice etc. have taken up maximum share in the total export. This has further helped in the extraction of maximum foreign currency. Rather the exports of other items like IT and ITES related products, leather goods, etc. have always remained under turbulence.

Various reports and record state that USA, China, European countries, United Kingdom, Belgium are the major customers of Indian agro-based products. When it comes to numbers, 4% increase in the last two years have amounted to USD 24 billion which shows the major contribution of organic and inorganic products like gems, jewellery, petroleum etc. In the current period, agricultural products have shown a slow growth whereas products that are based on agriculture have shown growth of 13.8% on annual basis. It is the result of the liberal policies of Indian government and related authorities.

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Literature Review

Gopal N et al. (2002) in their article "Indian Agricultural Commodity Futures market" examined the performance of six commodities (cotton, groundnut, raw jute, wheat rice, sugar) futures. A large number of agricultural commodities and their byproducts are being traded in several exchanges. The author concluded that the Indian futures markets for agricultural commodities are yet to develop fully as an efficient mechanism of risk management and price discovery. The futures markets are useful to hedgers only when the basic risk remains substantially lower than the price risk.

Dawson (2005) used the two theoretical models in the analysis, the first model based on agricultural production function, including agricultural and non-agricultural exports as inputs. The second model was the dual economy model, that is, agricultural and non-agricultural where each sector was subdivided into export and non-export sectors. The results of the study highlighted the role of agricultural exports in economic growth. The study suggested that the export promotion policies should be balanced.

Nair Prabhakaran K.P. (2005) was of the opinion that the Indian agriculture sector is in a serious disarray. India is lagging behind other developing nations as far as bringing up new breeds of crops and productivity are concerned. The author further stated that despite substantial spending on Research and Development the Indian agriculture sector has not made any significant breakthrough so far. The time has come to reconstitute the R&D capabilities of the sector to make it globally competitive.

Sharma D (2005) in his article "Indian Agriculture and the WTO" mentioned that after WTO, India was flooded with cheap and highly subsidized agricultural imports, and its agrarian economy had been thrown out of gear. Accordingly, the anticipated gain for India from the trade liberalization process in agriculture was practically zero. The author traced that among the numerous measures being suggested in the review of the Agreement on Agriculture (AOA), much of the emphasis was on creating yet another box for food security as a mechanism for safeguarding developing countries' vulnerability to cheaper imports.

Khandela Man Chand (2006) in his book analysed the changing conditions relating with foreign trade like the role of bilateral and multi-lateral trade agreements, government assistance and cooperation for expanding foreign trade, changing patterns in relation with commodity, country and currency, new challenges and opportunities, demand of professionalism.

Nadeem (2007) provided the empirical analysis of the dynamic influences of economic reforms and liberalization of trade policy on the performance of agricultural exports in Pakistan. The author examined the effect of both domestic supply side factors and external demand on the performance of agricultural exports. The major finding of the study was that export diversification and trade openness contributed more to agriculture exports performance. The results of the study suggested that agricultural exports performance is more elastic to change in domestic factors.

Muhammad (2010) examined the contribution of agricultural exports to economic growth of Pakistan by estimating the relationship between agricultural exports and non-agricultural exports to economic growth of Pakistan by employing Johansen co-integration technique for the period 1972 to 2008. The results of the study indicated that there was a negative and insignificant relationship between agricultural exports and economic growth. The agriculture export elasticity of GDP was -0.14 which means that a one percent increase in agricultural exports decreases the country's GDP by 0.14 and the non-agricultural export elasticity of GDP was 0.58. Based on the empirical results, the study suggested that non-agricultural exports should be promoted over agricultural exports.

Gbaiye et al. (2013) studied the existence of a long run relationship between agricultural exports and economic growth by using time series data from 1980 to 2010. The study made use of unit root tests and Johansen maximum likelihood test of co-integration and discovered that a long run equilibrium relationship exists between agricultural exports and economic growth and the relationship is elastic in nature meaning that a unit increase in agricultural exports would bring a more than proportionate increase in the Real Gross Domestic Product in Nigeria.

Objective

The study aims to evaluate the trade performance of exports of agricultural products and also to compare the performance of agricultural and non-agricultural products.

Research Methodology

The present study has used Descriptive research design. It combines observation, interview and survey. It is based on secondary data. Secondary data has been collected from various sources such as government websites, reports, papers, articles, government records, export record etc.

Data Analysis and Interpretation

From 2009 to 2020, in the last two decades a lot of fluctuations have been observed. The data shows a decrease in the percent of agricultural exports to total exports. The following table shows the agriculture exports, total exports, along with its percentage.

Table 1: India's Exports of Agricultural Commodities vis-a-vis Total National Export

Sr. No.	Year	Agriculture Exports	Total National Exports	Percentage Agriculture Exports to Total National Exports
1	2010-11	29728.61	209017.97	14.22
2	2011-12	34653.94	255137.28	13.58
3	2011-12	34653.94	255137.28	13.58
4	2013-14	41602.65	375339.53	11.08
5	2014-15	49216.96	456417.86	10.78
6	2015-16	62411.42	571779.28	10.92
7	2016-17	79039.72	655863.52	12.05
8	2017-18	85951.67	840755.06	10.22
9	2018-19	89341.33	845533.64	10.57
10	2019-20	120185.48	1148169.56	10.47

Source: Source: Director General of Commercial Intelligence and Statistics, Ministry of Commerce

The above table shows that the agricultural exports is increasing by every passing year. From 2010 to 2019, it is showing increasing trend however, the percentage of agriculture export to total export shows a declining trend. Furthermore, the total export has grown to around 75% from 2010 to 2019. It proves that government is taking necessary steps to promote and increase export of agricultural products from the country. Also, one possible reason could be, there is a high demand of organic food from different countries due to its quality and low price. The total export value in terms of percentage is less i.e. if the export value is compared in percent with agri-export products it can be seen that the overall growth in ten years is 55% with a variation of (\pm)5% to (\pm)10% yearly. Therefore, it is concluded that in case of percentage export of agriculture products is more as compared to total export from the country.

Table 2: Comparison of Agricultural and Non-Agricultural Exports from India

Year	Total Exports (Million USD)	Agriculture and Allied Products Export (Million USD)	Percentage Share of Agricultural Export	Percentage Share of Non-agricultural Export
2010-11	36822.4	5608	15.2	84.8
2011-12	44560.3	5973.2	13.4	86.6
2011-12	43826.7	5901.2	13.5	86.5
2013-14	52719.4	6710	12.7	87.3
2014-15	63842.6	7533.1	11.8	88.2
2015-16	83535.9	8474.7	10.1	89.9
2016-17	103090.5	10213.8	9.9	90.1
2017-18	126361.5	12683.5	10.0	90
2018-19	159006.7	19398.8	12.2	87.8
2019-20	173865.3	17774.5	10.2	89.8

Source: (Rani and Mittal, 2020)

Table 2 shows data year wise along with total exports (million USD), agricultural and allied products export (million USD), percentage share of agricultural export, percentage share of non-agricultural export. Here also in the above table, the agricultural export is increasing every year but in declining order. The total export is also increasing. If the percentage of agricultural export and non-agricultural export is compared a huge different is observed. There could be various reasons behind it for example, our agriculture is mainly depend on climate, because of natural calamities, turbulence in crop cycle. Hence, it is concluded that the percent share of non-agricultural export is more that the agricultural export in the total export of the country.

Conclusion

There are certain factors that play a major role in the whole process of exporting agricultural products such as adequate supply, quality of products, infrastructure facility, transport facility, government plans and policies, natural condition etc. From past years, our country is trying to provide everything possible to the farmers to promote and increase export in the form of various policies. Furthermore, farmers have also shifted their focus to commercial farming which will further boost the export in the years to come. With the same purpose the cropping pattern and agri-cycles have also been changed. At last, the study concludes that the agricultural export is increasing but in a declining way. Also, the percentage share of non-agricultural products in the total export is more than the percentage share of agricultural products.

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STUDY OF APPROACHES OF DEEP LEARNING IN SPEECH RECOGNITION

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ABSTRACT

Deep learning is used to teach computers what humans do naturally: learn by example. Deep learning is integral to driverless cars, enabling them to recognize a stop sign or distinguish a pedestrian from a lamppost. In deep learning, three or more layers of neural networks are used to simulate the behaviour of the human brain, allowing it to gain knowledge from large amounts of data, although they cannot match it exactly. A speech recognition system converts spoken words into text. It involves capturing and digitizing sound waves, converting them into basic language units or phonemes, building words from those phonemes, and contextually analysing the words to ensure correct spelling for words that sound alike. Over the last few decades, automatic speech recognition (ASR) has gained a lot of attention. It is an important area of research for human-to-machine communication. This paper reviews the various concepts in the field of the deep learning.

KEYWORDS: *Deep Learning, Speed Recognition, Automatic Speech Recognition.*

Introduction

In machine learning, deep learning is a subset of neural networks that have three or more layers. These neural networks attempt to simulate the behavior of the human brain—though far from matching its ability—allowing them to "learn" from large amounts of data. A neural network with only a single layer can still make approximate predictions, but it can be optimized and refined for accuracy by adding additional hidden layers. Artificial intelligence (AI) applications and services rely heavily on deep learning to automate analytical and physical tasks without the need for human intervention. As well as everyday products and services (such as digital assistants, voice-enabled TV remotes, and credit card fraud detection), deep learning technology is used to develop emerging technologies (such as self-driving vehicles). [1]

For machine learning algorithms to make predictions, structured, labeled data must be used. Specific features must be defined from the input data and organized into tables. Although it does not necessarily avoid using unstructured data, it generally goes through some pre-processing to make it into a structured format if it does. Deep learning has the capability to cut down on manual data pre-processing that is usually necessary for machine learning. It can handle unstructured data like videos, text and images, automatically detecting features and eliminating the need for human intervention. As an example, we could have a set of pictures of pets and wish to differentiate between them into categories such as "cat", "dog" or "hamster". Deep learning algorithms are able to assess which qualities (like ears) are essential to recognise each type of animal. This structure of features is usually established manually by a person who knows in this subject in traditional machine learning. [1]

As the deep learning algorithm adjusts and fits itself for accuracy through gradient descent and backpropagation, it can predict more accurately about a new photo of an animal. Machine learning and deep learning models have the ability to utilize various forms of learning, often referred to as supervised,

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unsupervised, and reinforcement learning. In supervised learning, labeled datasets are used to label input data or make predictions; this requires people to correctly identify the data. On the other hand, unsupervised learning does not require labeled datasets as it detects patterns within the data by grouping them based on distinguishing feature. Reinforcement learning is a cycle in which a model is able to optimize its performance when carrying out actions in an environment due to feedback that increases the reward. [2]

By using a combination of data inputs, weights, and bias, deep learning neural networks simulate the human brain's ability to recognize, classify, and describe objects. To refine and optimize prediction or categorization, deep neural networks consist of multiple layers of interconnected nodes, each layer building upon the previous layer. Forward propagation refers to the process of advancing computations through a network. A deep neural network's input and output layers are referred to as visible layers. Deep learning models process data in the input layer, and the output layer creates a final prediction or classification based on that data. [3]

To train a model, backpropagation adjusts the weights and biases of the function by moving backwards through the layers in order to calculate errors in predictions using algorithms such as gradient descent. Through forward propagation and backpropagation, a neural network can make predictions and correct for any errors as they occur. As the algorithm advances, it becomes increasingly accurate. It is important to note that deep learning algorithms are extremely complex, and there are different types of neural networks to address specific problems or datasets. [3]

In computer vision and image classification applications, convolutional neural networks (CNNs) can identify patterns and features in images, enabling tasks such as detecting objects. An object recognition challenge was won by a CNN in 2015 for the first time.

Natural language and speech recognition applications typically utilize recurrent neural networks (RNNs) since they leverage sequential or time-series data. [4]

Deep Learning and Speech Recognition

In the past 10 years, AI-driven speech recognition systems have been integrated into many aspects of our lives; from voice search to virtual assistants in cars, hospitals, restaurants and contact centers. This is all made possible by evolution in deep learning techniques. Developers utilize ASR (Automatic Speech Recognition) to boost efficiency of programs, business efficiency, and digital accessibility. In this post, we will be writing about ASR's function, applications, progress and other related topics. The latest technology for speech recognition is capable of converting spoken language (audio signal) into written text that can be used as commands. It is possible to process varying dialects and accents accurately with today's advanced software. ASR is commonly used in user-facing applications like virtual agents, captioning, and clinical note-taking. Accurate speech transcription is essential for these applications. [5]

Additionally, speech AI developers describe speech recognition using alternative terminologies such as ASR, speech-to-text (STT), and voice recognition. In speech AI, a suite of technologies designed to help humans converse with computers through voice, ASR is one of the most important components. In recent years, deep learning has become an attractive choice for developers in the area of speech recognition, due to its ability to surpass the accuracy of statistical algorithms. Deep learning models are known to provide a higher level of understanding in terms of dialects, accents, context and multiple languages - even when surrounded by high levels of background noise. Quartznet, Citrinet, and Conformer are some of the foremost state-of-the-art speech recognition acoustic models which can be integrated into a speech recognition pipeline as per the user's particular needs and requirements. The development process is facilitated by various tools such as Kaldi, Mozilla DeepSpeech, NVIDIA NeMo, NVIDIA Riva and NVIDIA TAO Toolkit et cetera. It is also possible to utilize cloud services from Google, Amazon or Microsoft for this purpose. [5]

The open-source tools Kaldi, DeepSpeech, and NeMo allow you to build speech recognition models. The closed-source tools TAO Toolkit and Riva let you build customized pipelines that can be deployed in production. In the cloud, you can easily plug in generic services like Google, AWS, and Microsoft. Google Home, Amazon Echo, Siri, Cortana, and others have become widely used Voice Assistants in recent years, making them the most well-known examples of Automatic Speech Recognition (ASR). Speech-to-Text algorithms are also known as Speech-to-Text algorithms because they start with a clip of spoken audio in a particular language and extract the words spoken into text. [6]

Siri and the others mentioned above go further. They do not only extract text, but also interpret and understand the semantic meaning of what was spoken, so they can respond with answers, or take actions based on the user's commands. As we can imagine, human speech is fundamental to our daily personal and business lives, and Speech-to-Text functionality has a wide range of applications. Transcribing customer support or sales calls, creating voice-based chatbots, or taking notes during meetings and other discussions can all be done with it. Basically, audio data is made up of sounds and noises. Human speech is a special case. Because speech encodes language, concepts that I have discussed in my articles, such as how we digitize sound, how we process audio data, and why we convert audio to spectrograms, also apply to understanding speech. [6]

Related Research Works in Deep Learning and Speech Recognition

M. S. Chauhan, et al., 2021 , [7] The importance of human voice and speech in communication has been recognized. To better understand and differentiate between the target speech signals, the analysis of such features is carried out. Traditional methods, such as signal-based matrices, prove insufficient to manage continuous and overlapping regions present in the speech. In order to address this challenge, advanced architectures that can effectively implement speech recognition and separation need to be developed. This paper provides an overview of a deep learning approach utilising Mel-Frequency Cepstral Coefficients for the purpose of recognising and separating speeches. MFCC extraction, DNN tuning, along with other techniques are utilized to achieve greater accuracy compared to single channel speech separation and Hidden Markov Model approaches.

S. M. Yusuf, et al. 2021, [8] demonstrated that deep learning frameworks are better suited than conventional machine learning models for classifying emotions from speech signals. Existing SER methods have two main issues: overfitting on small training datasets and inadequate classification accuracy for real-time prediction. To address these limitations, the authors developed a novel augmentation technique based on multi-window processing of speech spectrograms and transfer learning by finetuning the lower layers of pre-trained networks. The multi-window spectrogram augmentation increased the number of spectrogram samples to improve the performance of real-time emotion recognition. The IEMOCAP dataset was used to create two benchmark datasets, namely AHSN and AESN, to evaluate their proposed SER framework. Results showed that it achieved 69.15% and 67.17%, respectively, while predicting emotions from the AHSN and AESN datasets - an improvement of 6% and 2%, respectively, when compared with the baseline method. This SER method using deep learning can be beneficial in gauging speakers' emotions during conversations.

P. Wang, 2020 , [9] As society progresses into the era of informatization with the advancement of Internet technology, people have found themselves surrounded by artificial intelligence in their work, study and even daily activities. Domestic appliances have moved from traditional touch buttons to more advanced control methods such as voice command control, thus increasing the requirement for home intelligent speech recognition. This paper presents a deep learning technology-based acoustic model that is able to recognize speech features through filtering out noise and extracting voice features through high-level networks. The linear unit is proposed to replace nonlinear activation function for better performance. Experiments carried out on deep belief network and deep auto-encoder models prove that the speech recognition accuracy of the system model meets design requirements, creating a smart home environment that caters to people's needs.

K Nugroho et al. (2019) [10] investigated the recognition of gender voice in Javanese people using the Mel Frequency Cepstral Coefficient extraction feature and a Deep Learning method paired with Singular Value Decomposition (SVD) for dimensionality reduction. By using a 70-30 split ratio for training/testing data, results demonstrated that the accuracy rating obtained through Deep Learning was 97.78%, surpassing Logistic Regression (95.56%) and SVM (93.33%). Through this study, it is therefore evident that the combination of Deep Learning and SVD is capable of achieving high performances in speech recognition tasks.

S. Suganya and E. Y. A. Charles, 2019, [11] demonstrated that Speech emotion recognition is an important factor in human-centred computing, and entails the task of automatically identifying emotions from speech which poses a challenge due to the complexity of emotional expressions. In most machine learning applications, it is necessary to identify and extract the features representing entities before proceeding with the analysis. Traditional machine learning algorithms require accurately-identified features for their performance, however deep learning algorithms can learn high-level representations from raw data itself - leading to recent approaches taking advantage of various deep learning models on

pre-processed speech recordings such as spectrogram and time-frequency representation of speech or on raw audio directly. It was found that when CNN with nine weight layers was applied directly to an audio waveform, it achieved higher accuracy than traditional machine learning approaches as well as deep learning on spectrogram of audio recordings; both on IEMOCAP (68.6% over four emotions) and EmoDB (85.62% over seven emotions) datasets.

Conclusion

Deep learning has revolutionized the way machine learning works, by eliminating the need for pre-processing of data. Unstructured data such as images or text is able to be ingested and processed, with features automatically extracted without human experts. Recent years have seen an increase in the usage of deep learning techniques and algorithms for speech recognition, particularly RNNs which can take temporal dependencies into account. Online services utilizing deep learning to understand human speech include Alexa, Siri and Cortana. Not only can deep learning assist with understanding language, but through the use of various algorithms it can also enable automatic translation between languages.

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E-WASTE RECYCLING: A RESOURCE-SAVING APPROACH

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ABSTRACT

E-waste, also known as electronic waste, refers to discarded electronic devices and equipment, such as computers, laptops, smartphones, televisions, and other electronic appliances. E-waste is considered a major environmental problem due to its toxic components, which can pose a threat to human health and the environment if not disposed of properly. Electronic devices contain a range of hazardous materials, including lead, mercury, cadmium, and flame retardants, which can leach into soil and water and cause pollution and harm to human health. These materials are especially dangerous when e-waste is not disposed of properly, such as when it is burned, dumped in landfills, or exported to developing countries for disposal. The volume of e-waste is increasing rapidly due to the growing use of electronic devices and the rapid pace of technological innovation. In response to this problem, many countries have enacted laws and regulations to ensure that e-waste is properly disposed of and recycled. E-waste recycling involves separating valuable components and metals from electronic devices for reuse, which can help to reduce the environmental impact of electronic waste and conserve resources. India is one of the world's largest producers of electronic waste, and the management of e-waste in the country presents several challenges. To address these problems, India has implemented various policies and regulations for the management of e-waste, including the E-Waste Management Rules, 2016. However, more needs to be done to improve infrastructure, raise awareness, and enforce regulations to ensure the safe and sustainable management of e-waste in India.

KEYWORDS: *E-Waste, Human Health, Sustainable Management, Technological Innovation.*

Introduction

E-waste, short for electronic waste, refers to discarded electronic devices such as computers, smartphones, TVs, and other electrical or electronic devices that have reached the end of their useful life. E-waste also includes electronic components and parts, such as batteries and circuit boards. As technology advances, electronic devices are becoming more ubiquitous, and the amount of e-waste generated is increasing rapidly. According to the Global E-waste Monitor, the world generated over 53.6 million metric tons of e-waste in 2019, and this number is expected to increase to 74.7 million metric tons by 2030. E-waste can be hazardous to both human health and the environment due to the presence of toxic chemicals and heavy metals. When e-waste is improperly disposed of or recycled, it can release harmful substances into the air, soil, and water, and can harm the health of those who come into contact with it. Therefore, proper management and disposal of e-waste is crucial for protecting the environment and human health.

Unfortunately, only a small percentage of e-waste is properly recycled or disposed of. Many people and businesses still discard electronic devices in landfills, where they can release toxic substances into the environment over time. Additionally, in some cases, e-waste is illegally exported to developing countries where it is often dismantled under dangerous and unregulated conditions, exposing workers to hazardous chemicals and causing environmental pollution. Proper e-waste management involves reducing the amount of e-waste generated through product design and reuse, refurbishing and repairing devices, and safely recycling or disposing of devices that have reached the end of their useful life. E-waste recycling involves recovering valuable materials such as gold, silver, and copper from electronic devices and reducing the amount of waste that ends up in landfills. As consumers, we can play

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a role in reducing e-waste by buying electronics that are designed to last longer and can be repaired, donating or selling devices that are still functional, and recycling electronic devices properly. As businesses, manufacturers, and governments, we can take steps to reduce e-waste by implementing circular economy principles and developing sustainable product designs, improving recycling infrastructure and regulations, and promoting responsible e-waste management practices.

Problem of E-Waste

E-waste poses a number of significant problems, including:

- **Environmental Pollution:** E-waste contains a variety of toxic chemicals and heavy metals such as lead, cadmium, and mercury that can contaminate the environment and harm human health when not disposed of properly. When e-waste is burned or dumped in landfills, these substances can leach into soil and water sources, polluting the surrounding ecosystem.
- **Health Risks:** E-waste can cause serious health problems for those who are exposed to it. Workers in developing countries who dismantle electronic devices are often exposed to hazardous chemicals and heavy metals without proper protective equipment. This can lead to long-term health problems such as respiratory issues, skin diseases, and neurological damage.
- **Resource Depletion:** Electronic devices contain a number of valuable materials such as gold, silver, and copper. When e-waste is not properly recycled or disposed of, these materials are lost and must be extracted from the earth, leading to resource depletion and increased mining activities.
- **Data Security:** Electronic devices often contain sensitive personal and business data. When these devices are not properly disposed of, the data can be accessed and exploited by unauthorized individuals, leading to data breaches and identity theft.
- **Social Issues:** E-waste is often illegally exported to developing countries where it is dismantled under dangerous and unregulated conditions. This can lead to social issues such as child labour, exploitation, and poverty.
- **Climate Change:** E-waste contributes to climate change by releasing greenhouse gases such as carbon dioxide and methane when burned or left to decompose in landfills. Additionally, the production and disposal of electronic devices require significant amounts of energy, leading to further carbon emissions.

Review of Literature

Geyer, Jambeck, and Law (2017) conducted a comprehensive study on the production, use, and fate of all plastics ever made, highlighting the staggering environmental impact of plastic waste.

Baldé, Forti, Gray, Kuehr, and Stegmann (2017) provided an overview of global e-waste production, management, and potential environmental and health hazards associated with the disposal of electronic waste.

Ali and Gupta (2019) reviewed sustainable e-waste management strategies, including recycling and resource recovery, as a means of reducing the environmental impact of electronic waste.

Pariatamby and Victor (2019) discussed the status, challenges, and future perspectives of environmentally sustainable e-waste management practices.

Khanna, Rastogi, and Das (2018) analyzed the issues and options for e-waste management in India, including the potential for developing an effective regulatory framework to manage e-waste disposal.

Chatterjee and Kumar (2019) reviewed e-waste management practices and initiatives in India, highlighting the need for increased awareness, education, and enforcement of existing regulations.

Dubey and Banerjee (2018) provided an overview of the state of e-waste management in India, including the need for a holistic approach to address the social, economic, and environmental impacts of electronic waste.

Singh, Kumar, and Sharma (2018) discussed the current status and future challenges of electronic waste management in India, including the potential for innovation in the design, manufacture, and recycling of electronic products.

Kumar and Singh (2018) reviewed the e-waste scenario in India, including the current state of e-waste management and the implications for environmental and human health.

Balamurugan, Subramani, and Sathishkumar (2020) provided an update on the current status and challenges of e-waste management in India, including the need for improved regulation and enforcement of e-waste disposal practices.

Benefits of E-Waste Recycling

Proper e-waste recycling can have a number of benefits, including:

- **Conservation of Resources:** E-waste recycling helps to conserve valuable resources such as metals, plastics, and glass that are used in the production of electronic devices. Recycling these materials reduces the need for new materials to be extracted from the earth, conserving natural resources and reducing the energy needed to mine and process raw materials.
- **Reduction in Landfill Waste:** E-waste recycling reduces the amount of waste that ends up in landfills, where it can take hundreds of years to decompose and release harmful toxins into the environment. Recycling e-waste diverts it from landfills and reduces the environmental impact of waste disposal.
- **Energy Savings:** Recycling electronic devices uses less energy than producing new devices from raw materials. According to the Environmental Protection Agency (EPA), recycling aluminium, for example, can save up to 95% of the energy required to produce new aluminium.
- **Job Creation:** E-waste recycling can create jobs in the recycling and waste management industries. Recycling facilities require workers to sort and process e-waste, creating employment opportunities in the local community.
- **Reduced Greenhouse Gas Emissions:** Proper e-waste recycling can reduce greenhouse gas emissions by diverting waste from landfills and reducing the energy needed to produce new electronic devices.
- **Reduction in Toxic Chemical Exposure:** E-waste contains a variety of toxic chemicals such as lead, mercury, and cadmium. These chemicals can leach into the environment and harm human health if electronic devices are not properly recycled. Recycling e-waste can reduce the amount of toxic chemicals that end up in the environment and protect the health of workers and nearby communities.
- **Preservation of Biodiversity:** E-waste recycling can help to preserve biodiversity by reducing the environmental impact of electronic waste on ecosystems. Electronic devices can contain hazardous materials that can damage the soil, air, and water, harming plant and animal life. By properly recycling e-waste, these harmful substances are kept out of the environment, reducing the negative impact on biodiversity.
- **Cost Savings:** Recycling e-waste can save money for businesses and individuals by reducing the need to purchase new electronic devices. By refurbishing and repairing old devices, recycling facilities can make them available for purchase at a lower cost than new devices, providing cost savings for those who need them.
- **Promotion of Circular Economy:** E-waste recycling promotes the circular economy, which is an economic system that aims to keep resources in use for as long as possible and minimize waste. By recycling electronic devices, valuable materials can be reused and waste is minimized, reducing the need for new materials to be extracted from the earth.
- **Corporate Social Responsibility:** E-waste recycling is a way for businesses to demonstrate their commitment to corporate social responsibility by reducing their environmental impact and promoting sustainable practices. By properly disposing of e-waste, companies can show that they care about the environment and the health and safety of their communities.

India's Initiatives to Deal with E-waste

India has taken several initiatives to deal with e-waste. Some of the major initiatives are:

- **E-Waste (Management) Rules, 2016:** The Ministry of Environment, Forest and Climate Change (MoEFCC) notified these rules in 2016, which replaced the earlier rules of 2011. The new rules prescribe measures for the collection, storage, transport, treatment, and disposal of e-waste in an environmentally sound manner.

- **Extended Producer Responsibility (EPR):** The E-waste (Management) Rules, 2016, make it mandatory for producers, manufacturers, and brand owners to take responsibility for the e-waste generated by their products. They have to set up collection centers, provide awareness programs, and ensure safe disposal of e-waste.
- **National E-Waste Management Program (NEMP):** The Ministry of Electronics and Information Technology (MeitY) launched NeMP in 2011, which aims to create awareness among consumers and other stakeholders about the hazards of e-waste and the need for its proper disposal.
- **Setting up of E-Waste Recycling Facilities:** Several private companies and entrepreneurs have set up e-waste recycling facilities in various parts of the country. These facilities recover valuable materials from e-waste, such as copper, gold, and silver, and sell them to manufacturers for reuse.
- **Public-Private Partnerships (PPP):** The government has encouraged PPPs for the management of e-waste. For example, the Central Pollution Control Board (CPCB) has signed an MoU with the Federation of Indian Chambers of Commerce and Industry (FICCI) to promote PPPs for e-waste management.
- **Financial Incentives:** The government has provided financial incentives to encourage e-waste recycling. For example, the Ministry of Electronics and Information Technology (MeitY) provides financial support for setting up e-waste recycling facilities.
- **Digital India Program:** The government's flagship Digital India Program aims to transform India into a digitally empowered society and knowledge economy. The program includes several initiatives to promote e-waste management, such as e-waste awareness campaigns, setting up of e-waste collection centers, and promotion of e-waste recycling.
- **State-Level Initiatives:** Several states in India have also taken initiatives to deal with e-waste. For example, the state of Maharashtra has launched an e-waste awareness program, "Eco-friendly E-waste Management Maharashtra," which aims to promote the proper disposal of e-waste.
- **International Collaborations:** India has collaborated with several countries, such as Japan, Germany, and the United Kingdom, to learn from their experiences in e-waste management and to explore possibilities for cooperation in this area.
- **Research and Development:** India has also undertaken research and development initiatives to develop innovative solutions for e-waste management. For example, the Indian Institute of Technology (IIT) Delhi has developed a low-cost technology for recycling e-waste, which can recover valuable metals such as gold, silver, and copper.

Challenges of E-Waste Recycling

While e-waste recycling can provide numerous benefits, there are also several challenges that must be addressed. Some of the key challenges of e-waste recycling include:

- **Lack of Proper Infrastructure:** E-waste recycling requires specialized equipment and facilities to properly dismantle and dispose of electronic devices. However, in many parts of the world, there is a lack of proper infrastructure for e-waste recycling. This can make it difficult for individuals and businesses to properly dispose of their electronic waste.
- **Illegal Export:** E-waste is often illegally exported from developed to developing countries, where it is dismantled under unsafe and unregulated conditions. This can contribute to environmental pollution and health risks for workers in these countries.
- **Complex Recycling Process:** The recycling process for electronic devices can be complex and time-consuming. Different types of electronic devices require different methods of recycling, which can make it difficult to efficiently and effectively recycle all types of e-waste.
- **Limited Financial Incentives:** E-waste recycling can be expensive, and there may be limited financial incentives for businesses and individuals to properly dispose of their electronic waste. This can make it difficult to promote proper e-waste disposal and recycling practices.
- **Data Security:** Properly disposing of electronic devices requires that all sensitive data be securely erased or destroyed. However, this can be challenging for individuals and businesses who may not have the resources or knowledge to properly dispose of their electronic devices.

- **Lack of Awareness:** There is often a lack of awareness about the importance of e-waste recycling and the potential negative impacts of improper disposal. This can make it difficult to encourage individuals and businesses to recycle their electronic devices properly.
- **Fragmented Supply Chains:** The supply chain for electronic devices can be fragmented, with multiple manufacturers and distributors involved in the production and distribution of electronic devices. This can make it difficult to track the lifecycle of electronic devices and properly dispose of them at the end of their useful life.
- **Chemical Risks:** E-waste can contain a variety of hazardous chemicals, including lead, mercury, and cadmium. Improper handling and disposal of e-waste can expose workers and nearby communities to these toxic chemicals, leading to health risks and environmental pollution.
- **Limited Accessibility:** In some areas, e-waste recycling facilities may not be easily accessible, particularly in rural or remote areas. This can make it difficult for individuals and businesses to properly dispose of their electronic waste, leading to improper disposal and environmental pollution.
- **Lack of Standardization:** There is a lack of standardization in the recycling process for electronic devices, including in the types of materials that can be recycled and the methods used for recycling. This can make it difficult to scale up e-waste recycling efforts and ensure consistency in the quality of recycled materials.
- **Short Product Lifecycles:** The lifecycles of electronic devices can be short, with new devices released frequently. This can lead to a high volume of electronic waste and make it difficult to keep up with proper disposal and recycling practices.

Resource-Saving Approach to E-Waste Recycling

A resource-saving approach to e-waste recycling focuses on maximizing the reuse of valuable resources contained within electronic devices. This approach involves dismantling and separating electronic devices into their individual components and materials, and then recovering these materials for reuse. Here are some of the key principles of a resource-saving approach to e-waste recycling:

- **Design for Repair and Reuse:** Electronic devices should be designed with repair and reuse in mind, so that they can be easily repaired and upgraded throughout their lifecycle. This can help to extend the useful life of electronic devices and reduce the amount of electronic waste generated.
- **Prioritize Material Recovery:** The focus of e-waste recycling should be on recovering valuable materials, such as metals, plastics, and rare earth elements, rather than simply disposing of electronic devices. These materials can be reused in new electronic devices or other products, reducing the need to extract new materials from the earth.
- **Use Efficient Recycling Processes:** Recycling processes should be efficient and minimize the amount of energy and resources required to recycle electronic devices. This can help to reduce the environmental impact of e-waste recycling and make the process more cost-effective.
- **Reduce Chemical Exposure:** E-waste recycling should prioritize the safe handling and disposal of hazardous chemicals, such as lead, mercury, and cadmium, to protect the health of workers and nearby communities.
- **Develop Local Recycling Infrastructure:** Developing local e-waste recycling infrastructure can help to reduce the costs and environmental impact of transporting electronic devices to distant recycling facilities. This can also create economic opportunities for local communities.
- **Implement Extended Producer Responsibility (EPR):** EPR policies can help to incentivize manufacturers to design products that are easier to recycle and dispose of at the end of their useful life. EPR policies require manufacturers to take responsibility for the environmental impact of their products throughout their lifecycle, including the disposal and recycling of electronic devices.
- **Encourage Circular Economy Practices:** A circular economy approach involves designing products and systems that minimize waste and maximize the reuse of resources. By encouraging circular economy practices, we can reduce the amount of electronic waste generated and promote more sustainable production and consumption patterns.

- **Promote Consumer Awareness:** Educating consumers about the importance of e-waste recycling and the potential environmental and health impacts of improper disposal can help to promote more responsible consumption and disposal habits. This can include information about where and how to properly dispose of electronic devices, as well as the benefits of recycling.
- **Support Research and Development:** Investing in research and development can help to develop new technologies and processes for e-waste recycling, as well as new products that use recycled materials. This can help to promote innovation and create new economic opportunities in the e-waste recycling industry.
- **Coordinate Global Efforts:** E-waste is a global problem that requires coordinated efforts from governments, businesses, and individuals around the world. By working together, we can develop more effective policies and infrastructure for e-waste recycling and reduce the environmental and health impacts of electronic waste.

Overall, a resource-saving approach to e-waste recycling is essential for promoting a more sustainable approach to electronics production and consumption. By prioritizing material recovery, promoting circular economy practices, and developing more efficient recycling processes, we can reduce the environmental impact of electronic waste and create a more sustainable future.

Conclusion

In conclusion, e-waste is a growing environmental and health concern that requires immediate attention and action. E-waste recycling is an essential component of addressing this problem, and a resource-saving approach can help to maximize the reuse of valuable materials and minimize the environmental impact of electronic waste. However, there are still many challenges to overcome, including the fragmented supply chain, chemical risks, and lack of standardization. To address these challenges, we need to promote awareness, create proper infrastructure, implement regulations and incentives, and encourage research and innovation. E-waste recycling is a complex and challenging issue that requires a coordinated effort from all stakeholders, including governments, businesses, and individuals. By working together and prioritizing research and innovation, we can create a more sustainable future for electronics production and consumption, and reduce the environmental and health impacts of electronic waste.

India is one of the largest producers of e-waste in the world, with an estimated generation of 3.2 million metric tons (MT) in 2019, according to a report by the United Nations University. The report also states that India is the third-largest contributor to e-waste after China and the United States. The rapid growth of the information and communication technology (ICT) sector, coupled with the increasing affordability and penetration of electronic devices, has led to a surge in e-waste generation in India. However, the country's capacity to manage e-waste remains limited, and a significant amount of e-waste is disposed of in an unscientific and unsafe manner, leading to severe environmental and health consequences. Despite several initiatives taken by the government and private sector to address the issue, the situation in India remains challenging. The informal sector, which accounts for a significant share of e-waste recycling, often uses hazardous and unregulated methods, leading to exposure to toxic substances and environmental pollution. Moreover, the lack of awareness among consumers and the informal sector workers about the hazards of e-waste, coupled with weak enforcement of regulations, adds to the challenges.

However, there is also a growing awareness and momentum towards sustainable e-waste management in India, with increased collaborations and investments in research and innovation. The government's initiatives, such as the E-waste (Management) Rules, 2016, and the National E-waste Management Program, are steps in the right direction, but sustained efforts are needed to effectively manage the growing e-waste crisis in India.

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IMPACT OF SOCIAL MEDIA ON DECISION MAKING OF CONSUMER

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ABSTRACT

Consumer behaviour is complex, intricate, delicate to impact and indeed mystifying. The slowness, variability, unpredictability and frequency of consumer behaviour make the literacy of consumer behaviour an instigative but serious field of study. A large number of variables factors viz. social, artistic, demographic, psychographic (to name a many), act and interact to determine and impact the consumer behaviour and make it more fascinating. A large number of consumer behaviour models, varying in terms of complication, perfection and compass have formerly been proffered and experimenters are putting forward new approaches to describe and explain consumer behaviour and its various influencers. Consumer behaviour and consumer decision- making, one of the veritably important aspects of consumer behaviour, are prominent areas of exploration in the field of consumer wisdom. Marketers and scholars have been trying to understand consumer decision - making under varying request, social, artistic and other conditions. The emphasis is on to understand various cognitive and physical conditioning accepted by consumer before, during and after the purchase. Interplay of external influences within an internal frame of reference adds to the complexity in buying and consumer decision- making and makes it more interesting for experimenters. Though the exploration conducted abroad show influence of social media platforms on various stages of consumer decision- making process, albeit to varying degrees due to varying social, artistic and technological milieu, deficit of literature in the field in India necessitates a dire need of exploration in this area to resolve these issues. Hence, the study named "Impact of Social Media on Decision - making of consumer" has been conducted.

KEYWORDS: *Decision, Making, Consumer, Business, Organisation, Influence, Behaviour, External.*

Introduction

Trends of social media relinquishment by millions and business associations easily indicate that it's unconceivable to suppose of a world without social media and it isn't going anywhere soon. Advent of computer- intermediated platforms by the name of Social media has told consumer decision- making in unknown ways. It has added new confines to the consumer decision- making. Compressed purchase cycle, altered purchase channel, lessening significance of advertising, further credibility being accorded to information available on social media in comparison to traditional advertising, newer sources of information, inter-consumer commerce and exchange of information, newer influencers in the shape of blogs, consumer reviews, discussion threads in online communities etc. have made the consumer decision- making process more complex. The vacuity of consumers on these platforms has also opened up new lookouts and consumer touch points for marketers to communicate and impact them on the very platforms. Appearance of social media as a new business element, has further complicated buying behaviour process by adding further influences, in the shape of variety of new sources of online information that are controlled by consumers with little or no intervention and control of marketer. This shift in information control needle is adding new parameters to decision- making equation and is dramatically impacting the ways consumers admit and reply to request information. In addition, the fact that traditional marketing media and practices are losing their luster has constrained the marketers to move to social media platforms to find ways and means to understand and impact the consumer behaviour. Experimenters have been trying to disentangle the complications of consumer decision making process since long, but so far, they've not been suitable to interpret it in its wholeness.

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The Power of Social Media

On one hand, consumer checks, displayed a veritably promising part of social media in consumer decision trip (indeed for Asian requests) as a large chance of guests intended to make a purchase on the base of social media reviews across various product orders. Surveyed consumers expressed to favor social media to look up for product information, to find tickets and product deals, for shopping, to connect to client support services (nominated as social care), to express their enterprises and queries, to congratulate brands, to seek opinions of global pool of musketeers, peers and influencers for making purchase related opinions, to learn about brand gestures etc. still, despite frequency of social media influence on various angles of consumer purchase trip, reports also suggest that part and backing of social media in online buying and selling related conditioning of products has been sluggish. Organizations haven't accorded a major part to "**The Social Moment of Truth**", social attestations, social conformity and social consonance in marketing strategy, whereas these may prove to be necessary in purchase decision - making. Therefore, all this has needed for the marketers to gather knowledge about these fresh confines affecting consumer behaviour and to incorporate this knowledge into every hand of marketing planning expression and perpetration each over the world, experimenters have been trying to insulate and understand the influence of these computer intermediated platforms i.e. social media on consumer decision making. Therefore, social media has accorded new virtual ways to consumers to interact, to change information, to fraternize with others, to seek new information, to learn about new generalities, ideas and products in order to make purchase related opinions and indeed to make purchases. Period of social web has altered consumer decision trip by furnishing new influencers to consumers in the form of online brand advocacy and conversations in brand communities. It has opened gates to huge quantities of unbridled and undressed pools of information to consumers san any temporal, geographical and political boundaries and therefore has empowered consumers in unconceivable ways.

Why Social Media is a Need of Consumer Decision

The way businesses do business has been transformed by the rise of social media marketing. It is an online form of conducting business which has overpowered the market of traditional business. The applicability of social media marketing has enhanced to a great extent after consumers have been made aware of its utility. Moreover, its applicability has multiplied since the formulation of social media platforms; due to the fact that it creates brand awareness and also assists in driving sales and website traffic. Perhaps the best method for arriving at the present clients is by means of social media. Given the fact that consumer's perception is changing, social media platforms can be considered as the key to get familiar with the changing preferences and perception of customers. Moreover, the marketing strategies related to social media are also considered to be significant since the working population hardly gets any time to socialize and indulge in shopping from brick-and mortar stores. Now-a-days, they have become dependent on social media advertisements and other online promotional advertisements while making a purchase. Unlike the traditional mode of marketing, customers are reliant on the online or social media reviews available on the social media regarding the purchase of specific products. Regardless of the way that online entertainment is an expected device for advertising and special activities, absence of a content and strategy cannot attract the potential customers and thereby reducing the applicability of social media channels. Applicability of social media strategy has become widespread on the ground of effective communication which is not possible through traditional ways of promotion. A vast number of customers can be outreached via online mode. Considering an integrated IMC (Integrated Marketing communication) foundation for the execution and design of an upstream SM (Social Media) strategy is an effective solution for navigating the contemporary complicated communication landscape. This is achieved through a sequential manner that starts with an in-depth research on potential consumers, a proper choice of channels and messaging.

This implies that consumer interaction is also an important factor which makes the application of SM strategy distinctive. In social media, one may post updates, such as a tweet, share, like and post their content for a mass audience. Although social media platforms are an effective place for youth engagement, the utility of these varied platforms has also become popular in different demographic consumer segments. Besides, the prominent utility of social media is also seen in a mode to promote interpersonal communication. In both the context of personal communication and product or service promotion, social media has changed the process of and outlook of interacting with individuals. Moreover, the emerging popularity of social sites such as Facebook, LinkedIn and Twitter, social

channels has earned attention as the most effective choice of communication channels for the content creators, article writers, copywriters and bloggers. These social media sites have also opened the scope for the marketers and bloggers to interlink with the potential clients and share their uniqueness which in turn helps to create competitiveness for brands.

How Consumer Behaviour Impacted by Social Media

Consumer behaviour is widely acknowledged as the key to contemporary marketing success. As a result, the area of consumer behaviour has been defined by a diversity of perspectives and is founded on an interdisciplinary science. The ability to understand consumer behaviour has a direct impact on marketing strategy. Marketers believe that companies exist in order to satisfy the needs of their consumers, and as a result, this is the case. Customers' requirements can only be met to the degree that companies know their target audience. Therefore, marketing plans must include consumer behaviour insights into all aspects of a strategic marketing strategy. The customer patterns brought by contemporary living facilitates the formation of a customer field that expresses the awareness and patterns of owning a specific style, as well as group-specific components and preferences of individuals. While the customer consumes with the outlook of building a perception of identity and specifying who they want to be looked as, the person can achieve this aim to the degree that the clothing they consider to get that identity are interpreted and understood by others. The potentiality of brand name and fashion-based products to be interpreted and assessed by people in society is one of the prominent reasons that they are considered to be popular among all of the aspects that influence customer attitude when buying clothing. As far as purchase of clothing is concerned, customers are driven to a large degree by the knowledge provided by branding, fashion, and marketing efforts, as well as by psychological, personal, and social components. Apparel and fashion items differ significantly from other items. Therefore, it is vital for apparel retailers to understand the significant determinants that influence the consumer buying behavior in order to enhance their marketing plans for the future. The apparel goods are distinguished by a variety of physical qualities that are interpreted differently by different consumers. Consumers often compare and contrast alternative products based on different features when considering a product purchase. The influence of pricing and product attributes on apparel preference may be complex. From time to time, fashion evolves at a rapid pace. Consumer demand is influenced by demographic, regional, and social factors. The proliferation of brands has produced a competitive environment that has never previously existed.

Social Media – The New Market for Companies

Companies that know how consumers respond to different product features, pricing and marketing techniques are more likely to succeed. Customer buy conduct research gives data on buyers and their buying propensities. Age is one of the most major demographic factors that may significantly affect a person's buying behaviour. Also, a person's financial status influences their product selection. Over 680 million people in India use the Internet every day, making it the third-largest Internet user in terms of population in the world behind the United States and China, respectively. For Indian clients, web-based entertainment is progressively being utilized as a technique for correspondence and a data source, as well as a way of purchasing goods. During this COVID-19 pandemic there has been a rapid rise in online purchase in India and WhatsApp is the widely used app. Even local firms have turned online during this period of crisis. Many individuals have joined social media groups based on shared passions. As the online apparel does not provide fitting, buyers' decision and behaviours toward online retailers and apparel-based goods can be negatively influenced by size and comfort issues. When using social media to consume products and services, millennials perform more information searches for apparel products than older customers and communicate with other customers and company representatives. Apparel Influencers are rapidly raising, this apparel influencer market is helping businesses flourish by attracting new consumers. It is also thought that online consumer social interactions provide useful information and reduce perceived risk in online clothes purchase. Yet, from 2019 it was Gen X that did more online shopping compared to others generational cohorts. The recent pandemic compelled even Baby Boomers into more online shopping. Gen Z are similar to Gen Y but they have more influence on market and depends more on influencers rather than celebrity advertisements.

Conclusion

Social media channels are extending its wings in the corporate world and have shown to be a great marketing strategy. This strategic approach also involves consumer relations and promotes purchasing. The research examines in depth how social media platforms provide prospective consumers

and targeted products a value-added track and develop a relationship between the business and potential customers. Although social media marketing methods are a type of online advertising, consumers may have diverse opinions of these practices due to several functions and nature of social media. As a result, the focus of this thesis is to address the need to investigate the impact of these beliefs on purchasing behaviour in greater depth. Nowadays, fashion and clothing designers rely more on social networking platforms than ever before. Consumers have varying perspectives on the physical characteristics that make up clothing. In the process of making a buying decision, buyers routinely compare and contrast several items. Brands are strengthening their ties with consumers, and social media marketing activity is influencing the emotions involved with clothing product purchasing. Social media marketing theory and practice are examined in this study to better understand how customers shop for clothing goods and how to better target their marketing efforts. Many aspects of social media and their influence on e-commerce are examined. This study could aid the customer-company relationship by using e-commerce technologies to assist merchants better understand their customers and streamline their business strategy. Because of this, the goal of this research was to find out how social media-driven marketing methods influence consumers' shopping habits and their propensity to purchase clothes.

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POLICY FRAMEWORK FOR PROMOTION OF RURAL CREDIT: A STUDY OF BANKING SECTOR

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ABSTRACT

Credit is one of the prime requisites in the process of accelerating the pace of economic development and significantly helps in improving the standard and quality of living of rural households. It is one of the critical input in the overall development of the rural areas. In the earlier times banking was almost not in existence in rural areas and the rural population was completely dependent on moneylenders, traders, commission agents and they played an important role in financing the requirement of rural sector. For this RBI, NABARD and G.O.I has been instrumental in creating the broad-based institutional framework for meeting the increased credit requirements of the rural sector. Therefore, this paper highlights the major policy initiatives taken by RBI, NABARD and G.O.I with regard to promotion of rural credit in India. The paper also covers the growth rate of rural banking during different phases in India and give the suggestions on the basis of findings.

KEYWORDS: *Economic Development, Rural Households, Moneylenders, NABARD, G.O.I.*

Introduction

Credit is an indispensable input for the development of an economy. To make the rural development process self-sustaining financial support from banking institutions is of utmost importance as it helps in development of an economy and helps in eliminating the role of non-institutional sources. Bank credit has its crucial importance in the context of development and growth of rural areas. It is an important input variable in the production function of agricultural, industrial, commercial and allied activities. It has assumed significant increase in nourishing the base of modern economic system. Releasing the importance of banks, Government of India has encouraged banking institutions for simulating the growth in rural areas.

Objectives of the Study

- To study the policy framework for promotion of rural credit.
- To analyse the status of rural banking in India since Nationalization.
- To give suggestions on the basis of finding.

Policy framework for promotion of rural credit

Ensuring access to credit in rural areas has always been a matter of great concern for policy makers since independence. While the overall objective of rural credit was always guided by the consideration, so as to ensure adequate and timely availability of credit at reasonable rates of interest various relevant approaches and policies relating to credit delivery mechanism were formulated from time to time and reviewed periodically so as to a tune to the changing requirements of the rural areas. The developments with regard to different policy initiatives can be classified into various phases:

- **Policy framework of post-independence up to nationalization of the banks (1947-1969):** At the time of independence, the banking sector was relatively small, weak and had not penetrated in rural areas but it was concentrated in urban areas. During this phase, various

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surveys were initiated to review the demand and supply of credit in rural areas. The Government of India at the suggestion of RBI appointed a committee called the "Rural Banking Enquiry Committee" headed by Sir Purshotamdas Thakurdas in 1949 and the committee observed the role of various agencies providing banking facilities in rural and semi urban areas and found that cooperatives had played an impressive role with this regard and the growth of commercial bank offices was loop sided, there being a heavy concentration in larger towns and commercial banks had not found it possible to extend their operations beyond the taluka headquarters and a few mandis and other trading centres. The committee further emphasised that indigenous bankers and moneylenders continued to play a significant role in rural credit but their importance and activities were on decline. The committee recommended that there should be a suitable machinery for providing rural credit. Further, to address the concerns regarding the financing of rural areas, the RBI commissioned, "All India Rural Credit Survey", (AIRCS) under the chairmanship of D. Gorwala in 1951. The survey committee observed that the main deficiency of rural credit was its lack of focus. The committee observed that generally rural credit and agriculture credit in particular fell short of right quantity, was not of right type, did not served the right purpose and often failed to go to the right people (RBI Report, 2008). The committee recommended the creation of an efficient system for financing the agriculture sector and development of sound cooperative structure and for this RBI started financial contribution to the co-operative institution specially for refinancing of credit to agriculture. Further the committee expressed that cooperatives did not succeeded in mobilizing the deposits and disbursing the credit in rural areas so the committee felt that the efforts of cooperatives must be supplemented and recommended the adoption of the multi-agency approach to meet the credit needs of the rural areas and a much greater and responsible role was assigned to the commercial banks (RBI Report, 2008). This finding of the report of AIRCS laid the foundation stone for furthering the role of institutional credit to rural sector. The report also indicated that nationalization of banks would able to expedite the program of spread of banking in the country therefore the government first implemented the exercise of nationalization on Imperial Bank of India with the main objective of expanding the banking facilities on the larger scale more particularly in rural and semi-urban areas. As a result, the Imperial Bank of India was converted into State Bank of India through SBI Act in July 1955 and in 1959-60 various banks that were associated with the former princely states were converted into subsidiaries of SBI vide. The State Bank of India (Subsidiary Banks) Act of September 1959 and thereafter the SBI and its associates opened the branches mostly in rural and semi-urban areas. Hence, commercial banks became an important institution of extending rural credit to supplement the efforts of co-operative institutions. (Reddy, 1999). Further, the mandate of spreading the umbrella of institutional credit was addressed by introducing a new branch licensing policy in May 1962. Section 23 of the Banking Companies Act required that banks must obtain the permission of RBI before opening a new place of business. This policy also addressed the social goal of spreading the banking as it focussed on starting banks in unbanked areas. In July 1966, Government set up a committee, "All India Rural Credit Review Committee", (AIRCRC) under the chairmanship of B.Venkatappaih to review the demand and supply of rural credit. The committee examined the reports of rural credit survey of 1951-52 and the debt investment survey of 1961-62 and observed that a multi-agency approach with the commercial banks playing a complimentary role along with cooperatives in extending rural credit was required. It also recommended the establishment of Agricultural

Credit Board in RBI to deal with all aspects of rural and cooperative credit. In December 1967 it was decided to set up a National Credit Council to assist the RBI and Government in the task of allocating credit among the different sectors in conformity with the objectives of planning and considerations of the national economic policy. Further in April 1968, the collective efforts of commercial banks in extending credit to rural areas culminated in the setting of the Agricultural Finance Corporation which acted as an institutional device for banks to participate actively in financing of the agriculture sector and rural development. Hence, during the early independence period the efforts were made to spread banking to rural and neglected areas and make the banking system respond to the requirements of these areas.

- **Policy framework post nationalization of banks up to financial sector reforms (1969-1991):** Prior to 1967 the presence of banks was mainly concentrated in metropolitan cities and other industrial houses hence the rural areas were totally neglected (Desai, 1979). During this phase Government initiated various efforts for the spread of banking in rural and semi-urban areas. In 1967-68, the Government of India initiated the social control over banks with a view to provide support to financial sectors like agriculture and small-scale industries and as a result

National Credit Council constituted a study group on the "Organisational framework for the implementation of social objectives", in October 1968 under the chairmanship of D.R. Gadgil. After examining the negligible share of commercial banks with regard to rural credit, the study group recommended that the commercial banks should play a complementary role along with cooperatives in extending credit particularly in rural areas and found that during this period banking services became the privilege of big firms and wealthy individuals and masses were denied even the basic banking services. Moreover, the committee examined that in rural areas there was no access to banking services and for their credit requirements they were dependent on village moneylenders and other private finances to fund their activities (Devaraja, T.S,2011). Not even one percent of villages in India were served by commercial banks and consequently fourteen banks were nationalised in 1969 and this policy laid down the foundation stone for the spread of banking in rural areas. The main motive behind nationalisation was to spread the banking among masses in the rural areas and to provide loans for agriculture and small-scale industries as a part of their social responsibility and to free the agricultural labourers from the clutches of moneylenders (Mohan, 2006). Nationalisation of major banks acted as a catalyst in providing momentum to the efforts of leveraging commercial banking system for extending the credit in rural areas. As a result, the outreach of banks was enlarged considerably within a relatively short period of time. Hence, nationalization of fourteen banks was a major step towards policy framework for commercial banks in rural areas and it accelerated the structural transformation in banking sector.

Another landmark towards policy framework was the introduction of lead bank scheme that was introduced on the recommendation of Nariman Committee in 1969. The committee observed that credit has been unevenly spread due to urban orientation of commercial banks and various weaknesses of cooperative system. Therefore, the committee suggested that adoption of area approach to evolve plans and various programmes for the development of adequate banking and credit structure in rural areas and recommended that for discharging social responsibility every bank should concentrate on certain districts where it will act as lead bank. Under this scheme, each district was assigned to different banks for penetration and expansion of banking services particularly in the rural areas. The lead bank acted as a leader for coordinating the efforts of all credit delivery institutions to increase the flow of credit in rural areas so as to develop banking and credit facilities (RBI Report, 2008).

Other than directing credit to hitherto unbanked geographical areas, the RBI also sought to influence the sectoral orientation of banks (Devaraja T.S,2011) As a result, the informal study group on statistics relating to advances to the priority sector was constituted by RBI in May 1971 and on the basis of recommendations of this group the description of the priority sector was formalised in 1972 that included advances to agriculture and allied activities, advances to small scale and cottage industries. In November 1974, public sector banks were advised that they should lend not less than 33 1/3 per cent of the outstanding credit to priority sector by March 1979. In November 1978 the private sector banks were also advised to lend a minimum of 33 1/3 per cent of their total advances to the priority sector by the end of March 1980 (RBI Report). The Government directed the banks to adopt another target of achieving credit deposit (CD) ratio of 60 per cent in rural and semi-urban branches separately to ensure that deposits from rural areas were not siphoned to urban areas. In 1979, these targets were applied to private sector banks as well. Keeping in view the need to spread of banking in rural areas, RBI formulated the policy relating to branch licensing that aimed at expansion of branches in rural areas. The branch licensing policy of 1970 was an important landmark towards this direction. As per this policy for every new branch in an already banked area the commercial banks would have to open at least three branches in unbanked rural and semi-urban areas. Further, in 1976 this norm was revised to 1:4. This policy spearheaded the flow of institutional credit to rural sector in the country (Shah, Rao & Shankar, 2007).

Another major policy initiative towards the spread of banking in rural areas was recommended by the Narasimham working group in 1975 that reviewed the flow of institutional credit, especially to the weaker sections. It found that reorganising or restructuring cooperatives and commercial banking system could not meet major regional gaps in rural credit (Narasimham Working Group Report, 1975). As a result, it conceptualised the creation of Regional Rural Banks originally oriented towards rural areas. Hence another major policy decision was taken with the promulgation of RRB Ordinance on 26 September 1975 (later replaced by RRB Act 1976) for setting up RRBs with a view to develop the rural economy by providing for the purpose of agriculture traders small and marginal farmers landless labourers and artisans of rural India. The RRBs, in the opinion of Dantwala committee 1978 was a useful

component of rural credit market of the country (Baghee & Bagchee, 1980). In 1979, RBI set up a committee under the chairmanship of Shri B. Sivaraman to review arrangements for institutional credit for agriculture and rural development and the committee recommended for setting up of an apex bank for the purpose of agricultural rural development. As a result, the institutional credit and rural development got a flip with the setting up of these specialised institutions. Another two major policy decisions were announced in 1980. Firstly, in March 1980, Krishnaswami Committee recommended that all domestic scheduled commercial banks should further raise the proportion of their advances to priority sector to 40 per cent by March 1985 (Master Circular on Priority Sector Lending, RBI, 1980). Since then many changes were incorporated from time to time with regard to the lending to priority sector. Second major policy change was nationalization of six more banks in 1980 with the main objective of giving credit delivery under the control of Government. In the year 1982, NABARD came into existence for the development of rural areas by providing the flow of credit to agriculture, rural industries and all other allied activities particularly in rural areas.

In 1988, Standing Advisory Committee to "Review the flow of Institutional Credit" was set up under the chairmanship of P.D Ojha to examine certain operational aspects of rural lending and recommended the adoption of service area approach for the purpose of harmonising the efforts of banks in the task of development through rural lending. The targeted lending was complemented with area-based approach at various levels viz the village, the block, the district and at state level with supporting institutional arrangements like district level committee, state level bankers committee that aimed at planning and monitoring the flow of credit in the rural areas.

The three year branch expansion policy for the period April 1982 to March 1985 was implemented and the main objective of this policy was to improve the banking facilities in rural and semi-urban areas with greater emphasis on inter regional disparities. Overall, the period from 1985 to 1990 saw a modified branch expansion policy that emphasised on opening of branches in rural and semi-urban areas. This phase was marked by expansion of banking services in rural areas by nationalization of banks in 1969 and 1980, adoption of lead bank scheme and directed lending, setting up of institutional framework with "Multi Agency Approach" for providing credit to rural areas that resulted in channelizing the flow of credit in rural areas.

- **Policy framework post liberalisation**

- **Phase I (1991-2005):** In June 1991, the Government of India announced a new economic policy affecting major policy changes to bring about more competitive system and to promote efficiency in the real sectors of the economy. So as a part of this initiative the Ministry of Finance, appointed Committee on financial system also known as "Narasimham Committee". Though, this committee did not go into the question of rural credit in its entirety and confined itself to the role of commercial banks but still some of the recommendations made by this committee had its influence on the rural banking. On the eve of 1991 reforms rural credit delivery system was again found to be in a poor shape (Mohan, 2005). Further, the branch licensing policy of commercial banks was relaxed through a series of measures between April 1992 and August 1993 culminating in the move to allow commercial banks to close their loss making branches in rural centres. This move resulted in consistent decline in number of branches in rural areas. (Kumar, 2005). As a result, various working groups, committees, task forces were set up to look at the working of rural financial institutions.

The historical landmark in the rural credit was given by "Working Group on Linking SHGs with Banks" that was set up under the chairmanship of S.K. Kalia in the year 1992 by NABARD and the group recommended setting up of self-help group bank linkage programme. The main objective of programme has been financial inclusion by extending outreach to poor households in rural areas and making credit available at their doorstep with easy and self-managed access to formal banking services. Initially, it was introduced as a pilot project by NABARD, then RBI directed commercial banks to participate actively in this programme and subsequently it was extended to RRBs and cooperative banks. It began as a humble approach of improving the outreach of banking system and deepening credit in rural areas and has transcended into a holistic programme for extending financial, social, economical and technological support particularly in rural areas. The group opined that linking of SHGs with banks will improve the accessibility of credit from formal banking system to the unreached rural poor. The group further recommended that the thrust policy should be to encourage more and more formation of groups and linking them with banks (Master Circular on SHG-Bank Linkage Programme, RBI, 1992).

Another policy decision was taken by the “High-level Committee on Agriculture Credit through Commercial Banks” under the chairmanship of R.V. Gupta in 1998. The committee introduced the concept of Kisan Credit Cards in 1998 which aimed at providing adequate and affordable credit to the farmers in India and it has emerged as an innovative credit instrument particularly in the rural areas. The main objective was to provide adequate and timely credit support from the banking system to farmers at less rate of interest. This scheme is being implemented by all commercial banks, RRBs and co-operative banks.

To enhance the institutional support in rural and semi-urban areas local area banks were set up following an policy announcement during budget in 1996 (Economic Survey, 1996). The objective of establishing local area banks was to enable mobilization of savings and provision of credit in local areas. Thus, the overall idea was to bridge the gaps in the availability of credit in rural and semi-urban areas. These banks focussed more on the rural areas as they were allowed to open one branch in urban centre and rest in rural and semi-urban areas with special focus on local customers. Further, “Technical Group on Computation of Priority Sector Lending Targets” was set up under the chairmanship of B.R. Verma in the year 2000 and it recommended that the priority sector lending could be linked to the previous year’s net bank credit and appropriately increased keeping in view the estimated growth of credit during the year (Bhujanga Rao, 2014). In its Mid-Term Review of Monetary and Credit Policy for the year 2003-04, RBI constituted an “Advisory Committee on Flow of Credit to Agriculture and related activities from the banking system” under the chairmanship of V.S. Vyas. The advisory committee pointed out that rural financial institutions were not able to reach to a large number of population particularly rural women and their linkages with support system was weak. Further the committee pointed out that the legal and regulatory mechanism was inadequate and resulted in poor organisational financial health of rural financial institutions. Committee focused on strengthening the credit delivery system and suggested that RBI should announce rural credit policy, ensure greater involvement of commercial banks in rural credit and monitor lead bank performance. In 2004, RBI appointed “Internal Working Group to examine issues relating to Rural Credit” under the chairmanship of Vijaya Bhaskar to review the extent of branch authorization policy with a view to provide greater flexibility to banks for opening branches to enhance penetration of banking. As a result, the policy related to autonomy of opening branches in Tier 3 to Tier 6 centres as identified in Census 2001 was given to commercial banks (Master Circular on Branch Authorization, 2004).

- **Policy framework post liberalization**

- **Phase II (2005 onwards):** Despite various efforts of RBI and the NABARD, rural areas still lagged behind in banking services. As a result, new policy of financial inclusion was formulated by RBI in 2005-2006 to include financially excluded people especially in rural areas under the ambit of financial services. For this, RBI has set up an internal group to examine issues relating to rural credit and Micro finance, under the chairmanship of H.R. Khan in 2004 to look into the matter. The committee observed that despite of various efforts of Government and regulatory bodies the gap in the availability of banking services still continued and scheduled commercial banks have covered only 18.4 per cent of rural population through deposit accounts and 17.20 per cent by way of loan accounts (RBI Report, 2005). The committee recommended that for providing comprehensive financial services including savings, credit remittance, insurance and rural area linkages between banks and external entities may be established and overall infrastructure for credit delivery should be improved. As a result, business facilitator and business correspondent model were set up. Under business facilitator model banks may use the wide array of services of CSOs and others for supporting the banks and under this NGOs, farmer clubs, IT enabled rural outlets of corporates, postal agents, insurance agents, panchayat kiosk/villages common knowledge centres, krishivigyankendras can perform the main functions as business facilitator these business facilitators would provide support services of borrower identification, collection and processing of application, preliminary appraisal, follow-up recovery. Under BC model institutional agents/other external agencies would support the banks for extending financial services. The committee on financial inclusion constituted by Government of India was appointed under the chairmanship of Dr C Rangarajan in 2006 to prepare a strategy for financial inclusion. The committee studied financial exclusion patterns and identified barriers confronted by vulnerable groups and households in rural areas in accessing financial services. The committee submitted its report in 2008 and recommended that commercial banks should target for providing access to credit to at least

250 excluded households per annum in rural and semi-urban areas and should provide customised savings, credit, insurance products and should set up national rural financial inclusion plan. The committee recommended the constitution of two funds namely Financial Inclusion Fund (FIF) and Financial Inclusion Technology Fund (FITF) with NABARD and these funds were merged into a single fund (FIF) financial inclusion fund in 2015. Further, the “Working Group to Review the Business Correspondent Model” under the chairmanship of Vijaya Baskar was set up in 2009 and it found that BC model has the potential to speed up the process of financial inclusion in the country and bring the vast majority of population within the banking fold. The group recommended to enlarge the category of persons that can act as BCs and in addition to the entities presently permitted banks were also permitted to appoint individuals, karyana shops, medical shops, PCO operators, individuals who own petrol pumps, authorised functionaries of well-run self-help groups linked to banks and agents of small saving schemes. This innovation in the organisational structure as well as technology, enabled the banks to reach the unbanked rural population using the services of BCs/ BFs. (Ujjawal, Champatiray, Sadhu and Mendiratta, 2015). In 2009 RBI appointed “High-Level Committee on Lead Bank Scheme” under the chairmanship of Usha Throat and the committee pointed out that lead bank scheme has proved to be useful and needs to be continued (RBI Report, 2010). The committee recommended that there should be coordination between banks and the state government and both should work together for inclusive growth, promotion of financial literacy and credit counselling as also credit plus activities developing grievance redress mechanism, branch less banking through BCs/BFs involvement of NGOs, use of IT solutions and social security payments through bank accounts all these were envisaged to form an integral part for achieving financial inclusion. The committee further recommended up to draw a roadmap to provide banking services to each village through brick and mortar branch and various other forms of branch less banking as a result all scheduled commercial banks were advised in January 2010 to draw a specific board approved financial inclusion plans by March 2010. As a part of the financial inclusion plan, the government has launched Swabhimaan scheme in 2011 to extend the reach of banking in rural areas.

RBI has also set up Nachiketmor Committee on “Comprehensive Financial Services for Small Businesses and Low-Income Households” in 2013. The committee recommended that there should be sufficient access to affordable formal credit by each low-income household and small business owner and such lender must be able to offer them a full range of suitable credit products at an affordable price. The committee recommended for creating special category of banks which would positively impact financial inclusion in India and as a part of the recommendation of this committee a special category of banks payment banks were introduced. These banks are new type of banks which are expected to reach customers mainly through mobile phones rather than traditional brick and mortar model. The Government of India initiated the “National Mission for Financial Inclusion” namely Pradhan Mantri Jan Dhan Yojana (PMJDY) in August 2014 to provide banking services to unbanked households. The main objective of this mission was to ensure access of financial products and services at an affordable cost and to encourage usage of technology to lower the cost and widen the reach. In the year 2016, Internal working group on “Rationalisation of Branch Authorisation Policy” was set up under the chairmanship of Lily Vadera by RBI and this group recommended the concept of banking outlets. The scheduled commercial banks were permitted to open unless otherwise specifically restricted banking outlets in Tier 1 to Tier 6 centres without having need to take permission from RBI in each case. The policy covers opening of banking outlets in all tiers as defined on the basis of population according to Census 2011 (Master circular on Rationalisation of Branch Authorisation Policy, 2016).

In May 2019, RBI set up “High level committee on Deepening of Digital Payments” under the chairmanship of Nandan Nilekani. The committee recognised that large part of rural population has not been a part of digital economy and it recommended that usage of mobile banks should be more simplified and process driven so as to deepen the banking services in rural areas.

As in the earlier times commercial banks was an urban phenomena and rural population was dependent on non-institutional sources. But the scenario changed with the various initiatives and policy changes and as a result the institutional sources emerged as a major source of rural credit.

Rural Banking in India Since Nationalization (1969-2019)

The evolution of institutional structure through various policy interventions changed the overall scenario, whereby institutional sources primarily, the commercial banks became the main source of rural credit. The growth of banking services in the rural areas increased manifold as shown in Table 1.1.

Table 1: Growth of rural banking by commercial banks in India (1969-2019)

(Rs. in lac)

Year	Number of bank branches in rural areas	% of total	Deposit Mobilized in rural areas	% of total	Credit Deployed in rural areas	% of total	Credit-Deposit ratio in rural areas	Credit Deposit ratio at All India level
1969	1443	17.6	30600	6.3	11500	3.3	37.6	71.9
1972	5274	36	54000	6.5	25700	4.6	47.7	67.2
1975	7112	35.5	11710	8.5	60800	6	51.9	73.5
1978	12534	42.5	260640	10.1	153000	8.4	57.4	69.1
1981	19453	51.2	526158	13.02	306170	11.4	58.19	66.46
1984	25541	52.9	924316	14.37	674095	14.83	72.93	70.7
1987	30585	56.2	1552163	14.33	974517	15.11	62.78	59.51
1991	35216	58.1	3100980	15.46	1859897	14.97	59.98	61.93
1994	35379	57.2	4933114	15.23	2467035	14.03	50.01	54.29
1997	32909	50.5	7376970	14.74	3252522	11.44	44.09	56.81
2000	32673	48.7	12053919	14.67	4875339	10.6	43.36	56.01
2003	32303	48.55	17650239	13.83	7715335	10.21	39.04	59.24
2006	30610	43.25	22606119	10.81	12607834	8.33	55.77	72.39
2009	31549	38.57	34351019	8.76	20792613	7.30	57.14	72.61
2012	35936	35.65	57318603	9.43	38051767	7.92	66.39	79.02
2015	47191	36.17	96710043	10.89	60832305	8.84	62.90	77.45
2018	50137	35.15	118453968	10.35	71412515	8.35	60.29	74.77
2019	52183	35.94	150499027	11.90	88605567	9.76	58.87	71.71
EGR	7.04		16.67		17.55			

Source: Data compiled from Basic Statistical Return, RBI (1969-2019)

Table 1 depicts the growth of rural banking in terms of number of branches, deposits mobilized and credit deployed since 1969. The post-nationalization significantly improved the branch network of commercial banks especially in rural areas. The number of branches of commercial banks in rural areas increased from 1443 in 1969 to 7112 in 1975. This increase was manifold and their share increased from 17.6 per cent to 35.5 per cent during the same period. Further, between 1978 to 1991 the share of branches increased from 42.5 per cent to 58.1 per cent in rural areas. During the banking sector reforms that began in 1990s, the RBI has enforced the policy relating to slowdown of branch expansion in metropolitan areas; on the other hand, steady increase in number of rural branches were encouraged on the consideration that commercial banks had a role to play in branch banking (Akhtar and Parveen, 2014). Further, after the banking sector reforms were initiated the above policy perspectives underwent a change and as a result the share of branches in rural areas has seen a gradual fall since 1991. The deposits mobilised by these branches amounted to Rs. 30600 lac and accounted for only 6.3 per cent of the total share and out of the total credit financed only 3.3 per cent was financed in rural areas during 1969. During the initial years the total credit deployed in rural areas has seen upsurge from 1969 to 1992 but thereafter there has been a gradual fall up to 2013. It was only during the recent years that the share of credit deployed in rural areas has seen an increasing trend. To ensure that commercial banks did not concentrate their lending in urban areas the banks were mandated to ensure that rural and semi urban branches must maintain a credit-deposit (CD) ratio of 60 per cent. Further, table shows that the CD ratio was less during the initial years and after 1983 it was maintained at 60 per cent up to the year 1990. It again shows the gradual fall till 2006 and after introduction of financial inclusion plans it started gaining the momentum in rural areas. During 2019, the number of branches in rural areas stood at 52183 and these branches were able to mobilize Rs. 150499027 lac in form of deposits and financed Rs. 88605567

lac. During these five decades (1969 to 2019) the branches grew at the growth rate of only 7.04 per cent, whereas the deposits mobilized and deployment of credit grew at 16.67 per cent and 17.55 per cent respectively. The growth rates varied across the post-nationalization phase, post-liberalization phase and after the introduction of financial inclusion plan. Table 1.2 shows the growth rate under three different phases and it can be pointed out that the growth of rural banking in terms of branches (13.89), deposits (20.08) and credit (22.11) was highest in post-nationalization phase. It was more in rural areas as compared to All India level.

The growth of commercial banks in terms of banks branches, deposits mobilized and credit deployed suffered during post-liberalization phase I. Further, the rate of expansion reverted only after RBI introduced branch bank expansion guidelines and incentives for expansion since 2005 onwards. The growth rate of branches stood at 3.27 in rural areas as compared to 4.87 per cent at all India level. The deposits and credit in rural areas grew at the rate of 13.03 per cent and 13.91 per cent respectively over the period.

Table 2: Growth rate of rural banking during different phases in India

(in Percent)

Year	Rural areas			All India level		
	Branches	Deposits	Credit	Branches	Deposits	Credit
1969-1991 Post-nationalization Phase	13.89	20.08	22.11	8.70	16.18	15.54
1991-2005 Post-liberalization Phase-I	-0.65	12.85	11.85	0.96	14.34	14.91
2005-2019 Post-liberalization Phase-II	3.27	13.03	13.91	4.87	13.29	13.70

Source: Compiled from table 1.1

There has been an increase in the number of branches over the period and as a result the branch population ratio decreased that helped in improving the access of banking services and increased credit volume among rural households. The population per branch declined from 87442 in 1975 to 24445 in 2019 (Hoda and Tewary).

Suggestions on the basis of Findings

- Various initiatives should be taken up by the banks to reach unbanked areas so as to provide access of banking services which is necessary for a uniform development of a country.
- In order to bring the excluded rural population into the fold of credit, there is need to build an enabling system with respect to policy interventions, institutional innovations and digital technology.

Conclusion

The development of rural credit delivery system in the country has metamorphosed from monopoly of co-operatives institutions to the induction of commercial banks then to establishment of RRBs and further to introduction of financial inclusion plans. Further, various policy initiatives with regard to rural credit delivery system helped in enhancing the flow of credit in rural areas. Nationalization of banks made the tremendous expansion of scheduled commercial banks outreach especially in rural areas. The post-nationalization growth rate of rural branches, deposits and credit of scheduled commercial banks helped in achieving the penetration of banking services in rural areas.

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E -WASTE MANAGEMENT: A STUDY OF THE CURRENT SCENARIO

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ABSTRACT

One of the fastest growing waste streams in world is E-waste. This is due to increased consumption by both business and domestic users. Both developing and under developing countries are struggling with e-waste. This study only concentrates on understanding the e-waste system in India. India is one of the fastest growing economies in the world. This is due to rapid technological advancements, demand from the IT sector, and high consumption of electronic and electrical equipment's. India's e-waste is majorly management by two sectors which are formal and informal sectors. In 2016, a new rule called Extended Producer Responsibility (EPR) was introduced, which was initially imposed on both sectors. The informal sector in India primarily dominates waste disposal and is not highly regulated. Due to its disorganized nature, EPR does not perform well in this sector. Therefore, this study focuses on analyzing the current e-waste sectors in India by comparing them and evaluating their impacts. The impact of EPR on the informal sector is analyzed, and its reasons for failure are discussed. An investigation was conducted into how integration between the two sectors could be strengthened under the EPR. For this, a qualitative method is used where data is collected through interviews and through various publications. The data obtained is then coded and a thematic analysis is carried out. According to the findings, there is a limited impact of EPR on the informal sector in India. There is a long way to go to have a successful EPR implementation. The limited impact of this regulation is the likely challenges that India faces with regard to e-waste management. To overcome these challenges, integration between the two sectors is needed. But for this, the informal sector that dominates the e-waste market needs to be acknowledged. Modern techniques and technologies need to be adopted and practiced. Adequate frameworks and schemes should be developed taking these two sectors into account. Furthermore, social and economic issues need to be identified and addressed to have an adequate e-waste management in India.

KEYWORDS: e-Waste, e-Waste Management, Recycle.

Introduction

E-waste is any electrical or electronic equipment that's been discarded. This includes working and broken items that are thrown in the garbage or donated to a charity reseller like Goodwill. Often, if the item goes unsold in the store, it will be thrown away. E-waste is particularly dangerous due to toxic chemicals that naturally leach from the metals inside when buried.

E-waste contains various toxic substances such as mercury, lead or brominated flame-retardants which have the adverse effects on human health. These toxic substance have adverse effects on the major parts of human body such as nervous systems, blood systems, brain development, skin disorders, lung cancer, heart, liver, and spleen damage. It can also significantly affect the nervous and reproductive systems of the human body, leading to disease and birth defects. Improper disposal of e-waste is unbelievably dangerous to the global environment, which is why it is so important to spread awareness on this growing problem. The adverse consequences for health and the ecology of exposure to waste products from human consumption have long been recognized. A relatively recently recognized hazardous waste product comes from discarded electrical and electronic equipment (EEE). EEE includes

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items that have either a battery or a power cord. E-waste generated from discarded EEE is commonly divided into 3 main categories: large household appliances (refrigerators and washing machines), information technology (IT) and telecom (personal computers, monitors, and laptops), and consumer equipment (TVs, DVD players, mobile phones, mp3 players, and leisure and sporting equipment). Equipment components including batteries, circuit boards, plastic casings, cathode-ray tubes, activated glass, and lead capacitors also are considered to be e-waste. Electronic waste is emerging as a serious public health and environmental issue in India.

India is the "Third largest electronic waste producer in the world"; approximately 2 million tons of e-waste are generated annually and an undisclosed amount of e-waste is imported from other countries around the world. Annually, computer devices account for nearly 70% of e-waste, 12% comes from the telecom sector, 8% from medical equipment and 7% from electric equipment. The government, public sector companies, and private sector companies generate nearly 75% of electronic waste, with the contribution of individual household being only 16%. According to ASSOCHAM, an industrial body in India the, Compound Annual Growth Rate of electronic waste is 30%. With changing consumer behavior and rapid economic growth, ASSOCHAM estimates that India will generate 5.2 million tonnes of e-waste by 2020.

Review of Literature

According to Vijay N. Bhoi et al. (2014), most of the waste is inherently dangerous. It will degrade to provide leachate, which can contaminate water, and make lowland gas, that is explosive. Additionally, owing to the risks related to lowland sites, there are currently terribly strict needs on the development, operation and medical care of such sites. Most designing authorities desire a figured out quarry to be used for landscaping instead of a lowland web site that nobody desires in their "back yard". Product style should be used to assist to reduce not solely the character and quantity of waste, however conjointly to maximise end-of-life utilization. Makers, retailers, users, and disposers ought to share responsibility for reducing the environmental impacts of merchandise. A product-centred approach ought to be adopted to preserve and shield setting.

Sivakumaran Sivaramanan (2013) confirmed that the public awareness and cooperation of manufactures are essential for the advancement of e-waste management system. And also it is the responsibility of government to allocate sufficient grants and protecting the internationally agreed environmental legislations within their borders. Licensing of certification like stewardship may ensure the security to prevent illegal smugglers and handlers of e-waste. As e-wastes are the known major source of heavy metals, hazardous chemicals and carcinogens, certainly diseases related to skin, respiratory, intestinal, immune, and endocrine and nervous systems including cancers can be prevented by proper management and disposal of e-waste

According to Peeranart Kiddee et al. (2013) e-waste can be managed by developing eco-design devices, properly collecting e-waste, recover and recycle material by safe methods, dispose of e-waste by suitable techniques, forbid the transfer of used electronic devices to developing countries, and raise awareness of the impact of e-waste. No single tool is adequate but together they can complement each other to solve this issue. A national scheme such as EPR is a good policy in solving the growing e-waste problems.

Samarkoon M.B. (2014) in his study states that improper handling of e-waste can cause harm to the environment and human health because of its toxic components. Although the current emphasis is on end-of-life management of e-waste activities, such as reuse, servicing, remanufacturing, recycling and disposal, upstream reduction of e-waste generation through green design and cleaner production must be introduced to enhance a sustainable e-waste management system for Sri Lanka.

Sikdar & Vaniya (2014) in their research stated that government should introduce some topics related to disposal of e-waste materials and its recycling and adverse effects of e-waste on health of human body in Environmental Education as a compulsory subject from lower to higher grades. The researcher realized recently that the education system alone is a powerful medium to ensure environmental protection. It should reach most parts of the population at a young age, and more e-waste friendly behavior should be practiced on daily basis.

Binegde et al.. (2015) studied that the repair shops of electronic goods of the study area contributed an important role in extending the life span of electronic goods and thus reduce the number of thrown away e-goods. The study indicated that the high repair cost of the electronic goods and

availability of comparatively cheaper new electronic goods with more features attracts the consumers towards the throw away culture, leading to accumulation of obsolete electronic items. Strengthening of formal recycling of e-waste is very essential for attaining sustainable development.

Objectives of Study

The study has been adopted to achieve the following objectives;

- To examine the tendency of management of electronic waste in India in comparison with some other parts of world
- Our aim is to study the current status of e-waste management in India.
- To put up or fabricate some suggestions to deal with the adverse problem of e-waste with the growing era of digital India.

Research Methodology

The process used to conduct research is referred to as “research methodology”. It describes the nature of the study, the method of data collection, and the tools used to analyze the data. This paper is descriptive because it describes the current situation and study features. It aids in the reduction of bias and increases the reliability of data in research. In the paper, secondary data is used. Data was gathered from journals, research papers, periodicals, published reports, various websites, etc.

E-waste in India

India discarded approximately 3.2 million tonnes of e-waste in 2019 which is about 12 percent to the global e-waste production. India has emerged as 3RD largest Electronic waste producer in world after China (10.1) and United States (6.9). Computer devices account for nearly 70% of e-waste, with the contribution of telecom sector being 12%, medical equipment being 8%, and electric equipment's being 7% of the annual e -waste production. The Government, public sector companies, and private sector companies generate nearly 75% of e- waste; with the contribution of individual household being only 16%. The tier-1 cities tops the list in producing e- waste such as Mumbai on top followed by Delhi, Bangalore and Chennai. India is among the top three e-waste generating countries in the world besides China, the US, Japan and Germany. Among states, Maharashtra contributes the largest e-waste of 19.8% but recycles only about 47,810 tonnes per annum (TPA). Tamil Nadu with e-waste contribution of 13% recycled about 52,427 TPA; Uttar Pradesh (10.1%) recycles about 86,130 TPA; West Bengal (9.8%), Delhi (9.5%), Karnataka (8.9%), Gujarat (8.8%) and Madhya Pradesh 7.6%, as per the joint report.

Top Countries in E-Waste Production in Asia Continent

The biggest e-waste recycling market in India is in Delhi followed by Bengaluru and Chennai. First recycling unit was opened in Bengaluru. It estimates 1000 tonnes of plastics which has the same equivalent of Iron, about 300 tonnes of lead and about 43 tonnes of nickel copper is generated about 350 tonnes and 300 tonnes of lead as electronic waste in Bengaluru. The report published on December 18, 2020 mentioned that the collection targets for 2017-18 and 2018-19 based on the rules were 35,422 tonnes and 1,54,242 tonnes, as per the studies. The actual collection, however, was less in both the years — 25,325 tonnes in 2017-18 and 78,281 tonnes in 2018-19 as per the reports. In the guidelines, the environment ministry had made the producers responsible for collection of end-of-life electronic products as part of the Extended Producer Responsibility, in line with the global best practice. The pollution board said 1,630 producers were extended EPR authorisation as on November 26, 2020. Also, 312 dismantlers or recyclers were authorised in the same period with a capacity of processing 782,080.2 tonnes of e-waste every year. These units processed 69,413 tonnes of e-waste in 2017-18 and 164,663 tonnes in 2018- 19. This is also vital because the key elements in most electronics – rare earth metals – aren't exactly rare as their name suggests, but are definitely hard to obtain, at least locally. The latest forecasts show that e-waste's global worth is around \$62.5 billion annually, which is more than the GDP of most countries. It's also worth three times the output of all the world's silver mines.

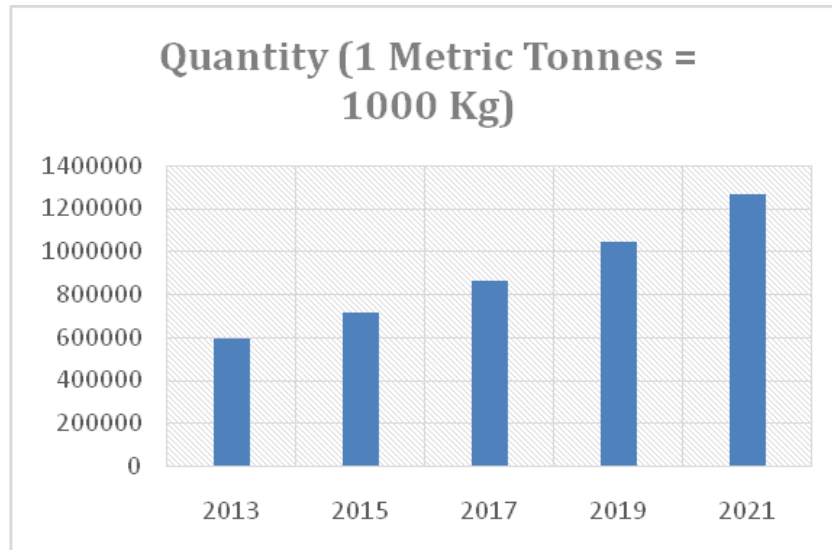
Top 3 E-Waste Generating Cities of India

The ASSOCHAM-KPMG study, titled “Electronic Waste Management in India” identified computer equipment & mobile telephones as the principal e-waste generators in India. According to this study, computers contributed about 70 per cent of the total e-waste generated in India, while telecommunication equipment accounted for 12 per cent. Among the India cities, Mumbai topped the list as it generated an estimated 1, 20,000 tonnes of e-waste annually. Delhi and Bengaluru ranked second and third, with 98,000 and 92,000 tonnes of e-waste generation respectively. State-wise list Maharashtra

ranks first in generation of electronic waste, followed by Tamil Nadu and Uttar Pradesh. India is among the top five e-waste generating countries in the world besides China, the US, Japan and Germany. Among the states, Maharashtra contributes the largest e-waste of 19.8% but recycles only about 47,810 tonnes per annum (TPA), the report released by Assocham and NEC on ahead of the Environment Day on 5 June 2019. Tamil Nadu with e-waste contribution of 13% recycled about 52,427 TPA; Uttar Pradesh (10.1%) recycles about 86,130 TPA; West Bengal (9.8%), Delhi (9.5%), Karnataka (8.9%), Gujarat (8.8%) and Madhya Pradesh 7.6%. Substitutes for dangerous substances, these impacts can be mitigated. A legal framework must be there for imposing EPR, RoHS for attaining this goal. Adoption of environmentally sound technologies for usage and employ of e-waste at the side of EPR and RoHS offers workable answer for environmentally sound management of e-waste. Manufacturers & suppliers need to set goals for reducing electronic waste. Encourage them to buy back old electronic products from consumers, disposing bulk e-waste only through authorized recyclers and send non tradable e-waste to authorized private developers for final disposal. According to Vijay N. Bhoi et al. (2014), most of the waste is inherently dangerous. It will degrade to provide leachate, which can contaminate water, and make lowland gas, that is explosive. Additionally, owing to the risks related to lowland sites, there are currently terribly strict needs on the development, operation and medical care of such sites. Most designing authorities desire a figured out quarry to be used for landscaping instead of a lowland web site that nobody desires in their "back yard". Product style should be used to assist to reduce not solely the character and quantity of waste, however conjointly to maximise end-of-life utilization. Makers, retailers, users, and disposers ought to share responsibility for reducing.

Growth of E-waste in India

Year	Quantity (1 Metric Tonnes = 1000 Kg)
2013	589893
2015	713770
2017	863662
2019	1045031
2021	1264488



Vital Causes of E-Waste Management in India

- The lack of awareness about the e-waste.
- Out of reach of e-waste recycle units.
- The cost or high investment required for recycling of e-waste.
- The labours required for recycling and the hazardous materials contained.
- lack of workforce needed for waste collection and processing.

- Industries dump their waste in rivers for petty profits which get back into homes of people via water they use.
- Corruption leads to improper way of installation of dustbins and other e-waste collection instruments.
- Improper implementation of the way of Recycling, Reusing and Reducing the use of e-waste (i.e. 3R's).
- Waste pickers are not properly entertained in the waste management cycle.
- No proper implementation of punishment for those who are not following proper way to dump e-waste.
- Urbanization directly contributes to waste generation, and unscientific waste handling causes health hazards and urban environment degradation.
- It is not easy for government to collect waste from every corner of country, as waste is widely scattered in parts of the country.
- Another reason is, improper dumping of waste by industries which further get back into houses of society via water.

Effects of E-Waste on the Environment

- **E-Waste Negatively Impacts the Soil**

First, e-waste can have a damaging effect on the soil of a region. As e-waste breaks down, it releases toxic heavy metals. Such heavy metals include lead, arsenic, and cadmium.

When these toxins leach into the soil, they influence the plants and trees that are growing from this soil.

Thus, these toxins can enter the human food supply, which can lead to birth defects as well as a number of other health complications.

- **E-Waste Negatively Impacts the Water**

E-waste that is improperly disposed of by residents or businesses also leads to toxins entering groundwater.

This groundwater is what underlies many surface streams, ponds, and lakes. Many animals rely on these channels of water for nourishment. Thus, these toxins can make these animals sick and cause imbalances in the planetary ecosystem.

E-waste can also impact humans that rely on this water. Toxins like lead, barium, mercury, and lithium are also considered carcinogenic.

- **E-Waste Negatively Impacts the Air**

When e-waste is disposed of at the landfill, it's usually burned by incinerators on site.

This process can release hydrocarbons in the atmosphere, which pollutes the air that many animals and humans rely on.

Furthermore, these hydrocarbons can contribute to the greenhouse gas effect, which many scientists think is a leading contributor to global warming.

In some parts of the world, desperate people sift through landfills in order to salvage e-waste for money. Yet, some of these people burn unwanted parts like wires in order to extract copper, which can lead to air pollution as well.

Development of Waste Recycling Technologies

The MeitY has developed affordable technologies to recycle valuable materials and plastics in an environmentally sound manner, including two exclusive PCB recycling technologies, viz 1000 kg/day capacity (~35 MT e-waste) and 100kg/batch (~3.5MT e-waste) processes, with acceptable environmental norms.

The 1000kg PCB/day continuous process plant would be suitable for creating an eco-park in the country, whereas, the 100kg PCB/batch process plant would be suitable for the informal sector. This could be done by upgrading and transforming the present state of affairs of informal sectors.

E-waste also contains plastic, up to nearly 25 per cent of its weight. Novel recovery and conversion of e-waste plastics to value-added products have also been successfully developed.

The developed process is capable of converting a majority (76 per cent) of the waste plastics into suitable materials, which could be used for virgin plastic products. The technology has already been transferred for commercialisation. Professor Veena Sahajwalla, an expert, based in Australia, suggests setting up micro-factories in India that can transform e-waste into reusable material to be converted into ceramics and plastic filaments for 3D printing.

The high-grade metals — like gold, silver, copper and palladium — in the e-waste can be separated for re-sale in conditions that are totally safe. She opines that there is no reason to burn plastic, micro-factories can create filament with plastic by compressing the waste in a temperature controlled area. A modular micro-factory, which would require a 50 sq. mt area, can be located wherever waste is stockpiled. She says that if funds are made available towards initial capital expenditure to operators, it will help empower the people working with waste.

Immense potential is there in augmenting e-waste recycling in the country. There are some forward movements in this direction, however, lots of ground has to be covered through awareness campaign, skill development, building human capital and introduction of technology while adopting adequate safety measures in the country's informal sector.

Since India is highly deficient in precious mineral resources (whereas untreated e-waste goes to landfill), there is need for a well-designed, robust and regulated e-waste recovery regime which would generate jobs as well as wealth.

What are the Challenges related to the Management of E-Waste in India?

- **Less Involvement of People:** A key factor in used electronic devices not being given for recycling was because consumers themselves did not do so. However, in recent years, countries around the world have been attempting to pass effective 'right to repair' laws.
- **Involvement of Child Labour:** In India, about 4.5 lakh child laborers in the age group of 10-14 are observed to be engaged in various E-waste activities and that too without adequate protection and safeguards in various yards and recycling workshops.
- **Ineffective Legislation:** There is absence of any public information on most State Pollution Control Boards (SPCBs)/PCC websites.
- **Health Hazards:** E-waste contains over 1,000 toxic materials, which contaminate soil and groundwater.
- **Lack of Incentive Schemes:** No clear guidelines are there for the unorganized sector to handle E-waste. Also, no incentives are mentioned to lure people engaged to adopt a formal path for handling E-waste.
- **E-waste Imports:** Cross-border flow of waste equipment into India- 80% of E-waste in developed countries meant for recycling is sent to developing countries such as India, China, Ghana and Nigeria.
- **The Reluctance of Authorities' Involved:** Lack of coordination between various authorities responsible for E-waste management and disposal including the non-involvement of municipalities.
- **Security Implications:** End of life computers often contain sensitive personal information and bank account details which, if not deleted leave opportunity for fraud.

Suggestion to Improve E-Waste Management

- Awareness campaign should be conducted by government with the help of media coverage.
- Government should apply incentives schemes for industries and approach them so that industrial e-waste can be properly managed.
- Organize what u have: one should properly organize their gadgets such as wires connectors, DVD's , batteries, etc. so to improve e-waste management at personal level. If this step is taken by every individual in society it will be an great help to government to dispose that e-waste for recycle at its best.
- 3 R's : That are Reduce , Reuse, Recycle should be in acted by each and every individual , housing, industries, public sector companies ,private sector companies so that it may help in the proper disposal of e-waste .One should follow all the rules, regulations and acts, initiated by the government

- Awareness Campaign: There is an urgent need to reach out to the workers of all the informal sector, raise awareness about the consequences of improper e-waste management and include them as part of the solution to e-waste related issues.
- Government can also refer those methods adopted or in acted by other worldwide countries: For example, South Korea, one of the largest producers of electronics managed to recycle 21 per cent of the total 0.8 million tonnes of e-waste that it produced in 2015. Korea recycles all the e-waste that it produces. It has set up the Seoul Resource Centre (SRC) which receives 20 per cent of the Seoul's e waste for extraction of valuable metals such as gold, copper, etc. The remaining 80 per cent of Seoul's e waste is used entirely for land filling.
- Give away or donate your e-waste. if you don't need a thing, donate it so someone else can use it. Donations are great for tax deductions; often the amount will be close to the value of the item if you tried to sell it.
- Think ahead: We actually had to pay to toss a bunch of electronics the last time we moved. We didn't have enough time to find people that wanted what we had, which felt terrible. There's no quick way to get rid of e-waste—we have to dispose of them sooner or later. Don't let them pile up.

Conclusion

E-waste management is a great challenge for governments of many developing countries such as India. This is becoming a huge public health issue and is exponentially increasing by the day. In order to separately collect, effectively treat, and dispose of e-waste, as well as divert it from conventional landfills and open burning, it is essential to integrate the informal sector with the formal sector. The competent authorities in developing and transition countries need to establish mechanisms for handling and treatment of e-waste in a safe and sustainable manner. Increasing information campaigns, capacity building, and awareness is critical to promote environment friendly e-waste management programmes. Increasing efforts are urgently required on improvement of the current practices such as collection schemes and management practices to reduce the illegal trade of e-waste. Reducing the amount of hazardous substances in e-products will also have a positive effect in dealing with the specific e-waste streams since it will support the prevention process. Mobile phone manufacturer Nokia is one of the very few companies that seem to have made serious effort in this direction since 2008. The companies were made responsible for creating channels for proper collection and disposal of e-waste in accordance with a Central Pollution Control Board (CPCB) approved EPR Authorization plan in India. Recently, the import license of some of the big companies were suspended for violation of E-waste rules. Such measures have a great impact on effective implementation of e-waste management in India. Any task undertaken must have its share of incentives which attract stakeholders. In the field of e-waste management, the government must announce incentives, which could be in the form of tax concessions or rebates, to ensure compliance across the electronics industry. Additionally, the e-waste collection targets need to be regularly reviewed and renewed to ensure compliance across India on collection of e-waste.

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PROVIDING A COMPETITIVE EDGE TO E-COMMERCE MARKETS USING THE LATEST APPLICATIONS

Dr. Swati Jain*

ABSTRACT

E-Commerce Market India has experienced a boom due to internet and smartphone penetration in recent years. As an outcome of the "Digital India" programme, the number of internet connections in 2021 increased radically to 830 million. Out of the total internet connections, 55% of connections were in urban areas, of which 97% of connections were wireless. The smartphone base has also increased significantly and will probably reach 1 billion by 2026. As a result, India's digital sector is expected to reach one trillion dollars by 2030. The growth of India's e-commerce sector seems to be an outcome of this rapid rise in internet users and smartphone penetration combined with rising incomes. Our country's business practises have been completely transformed as a result of e-commerce. It has opened up various segments of commerce through its models like business-to-business (B2B), direct-to-consumer (D2C), consumer-to-consumer (C2C), and consumer-to-business (C2B). Immense growth has been observed in segments such as D2C and B2B. The D2C market in India is expected to reach US\$ 60 billion by FY27. By 2030, the overall e-commerce market is also expected to reach US\$ 350 billion, and it will experience 21.5% growth in 2022 and reach US\$ 74.8 billion. A few businesses dominate the e-commerce sector due to the availability of exposure to the best technology. If others also want to have a chance of competing with these conglomerates, they should embrace digital transformation and make smart investments to:

- Lowering of costs,
- Increasing customer satisfaction
- Enhancing profitability.

In order to boost e-commerce companies' profitability, there are certain e-commerce technologies currently available. This paper will examine and analyse a few of the most popular ones:

- Chatbots
- Recommendation systems
- AI-driven pricing tools
- Mobile apps
- Virtual reality
- Image search engines
- Web scraping
- ERP systems
- E-Wallets
- Pop-ups.

KEYWORDS: e-Commerce, Digitalization, B2B, B2C.

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Introduction

E-Commerce Market India has experienced a boom due to internet and smartphone penetration in recent years. As an outcome of the "Digital India" programme, the number of internet connections in 2021 increased radically to 830 million. Out of the total internet connections, 55% of connections were in urban areas, of which 97% of connections were wireless. The smartphone base has also increased significantly and will probably reach 1 billion by 2026. As a result, India's digital sector is expected to reach one trillion dollars by 2030. The growth of India's e-commerce sector seems to be an outcome of this rapid rise in internet users and smartphone penetration combined with rising incomes. Our country's business practises have been completely transformed as a result of e-commerce. It has opened up various segments of commerce through its models like business-to-business (B2B), direct-to-consumer (D2C), consumer-to-consumer (C2C), and consumer-to-business (C2B). Immense growth has been observed in segments such as D2C and B2B. The D2C market in India is expected to reach US\$ 60 billion by FY27. By 2030, the overall e-commerce market is also expected to reach US\$ 350 billion, and it will experience 21.5% growth in 2022 and reach US\$ 74.8 billion. A few businesses dominate the e-commerce sector due to the availability of exposure to the best technology. If others also want to have a chance of competing with these conglomerates, they should embrace digital transformation and make smart investments to:

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- Enhancing profitability.

In order to boost e-commerce companies' profitability, there are certain e-commerce technologies currently available. Let us examine and analyse a few of the most popular ones:

Chatbots

Computer programmes that stimulate human conversation process these conversations, resulting in their interaction with digital devices. Chatbots are effective tools for engaging with customers. They reduce engagement costs while providing them with the feeling of communicating with a real person. A computer programme that simulates and processes human conversation is known as a chatbot. Customers benefit from e-commerce, as they can purchase goods at any time and from any location. Prior to this, real-time communications were missing from e-commerce. The companies used to follow up and interact mostly through e-mails and messages.

Chatbots work on the conversational commerce strategy, wherein the functions carried out on websites, mobile applications, and messaging services like WhatsApp are the same as making a purchase in a physical store. In chatbots, online assistants and executives inform customers about the advantages of the products, display alternatives and complementary items, and perhaps give advice to assist customers in making decisions in the same way as they do in a physical store. Automation makes it possible to cut call centre expenses by up to 75%, which is an additional advantage.

An e-commerce business, Tata Cliq, discovered that customers had a tendency to leave out costly electronics from their shopping lists due to knowing little about the products. As a solution to this problem, Tata Cliq started working with chatbot company Haptik and implemented a conversational commerce strategy, improving its B2C interactions. This strategy increased Tata Cliq's cart-add rate by around 2.5 times. For example, Chatbot informs a user regarding the differences between inverter and non-inverter ACs.

A few companies providing chatbot services in India are: Agentbot, Messenger People, Botsociety, Raphiwha, Gupshup, Yalo, LivePerson and ChatCompose etc.2.

Recommendation Systems

According to a survey by PwC, more than 30% of consumers are willing to pay extra for the things that are suggested to them by some specialists. They also appreciate personalised recommendations that suit their requirements because of the ease and convenience of shopping. Higher rates of engagement and boosted sales are the results of using such systems. As per a survey by McKinsey, it is estimated that the recommendation engine is responsible for more than one third of the sales on the Amazon e-commerce platform. Today, company executives are advised to deploy behavioural analytics so that their customers' wants can be better predicted. For example, the recommendation system is used by Netflix to enhance customer satisfaction as well as its revenue.

AI-driven Pricing Tools

To combat the fight in highly competitive marketplaces, changing pricing immediately and spontaneously to match the one used by rivals also has a significant impact on conversion rates. It also helps the players grab a good market share with small margins. Pricing tools can be used to evaluate prices on an instant and concurrent basis by comparing them to those of rivals. Also, stock levels and delivery policies can be better managed by using these tools.

To remain competitive in a rapidly changing business environment, it is a favourable strategy as it helps your e-commerce company behave proactively.

Mobile Apps

Presently, 60% of e-commerce sales are conducted through mobile applications. Researchers suggest that this trend will substantially increase in the coming years. Therefore, using mobile apps in business is a beneficial e-commerce technology.

Through mobile apps, customers can interact with a brand conveniently and continuously. With the use of apps, they get to know about customised purchasing opportunities. Mobile apps provide a very simple check-in and check-out process for customers to shop.

Virtual Reality

A major disadvantage of online shopping is that customers cannot try or experience products before purchasing them. This issue is solved through the use of virtual reality (VR) technology, wherein customers can interact and experience 3D artificial environments. Customers can now virtually try out products, arrange furniture in their homes, visualise haircuts on their faces, and more.

Fits.me, a virtual reality online sales platform launched by Thomas Pink, a British shirt manufacturer, is one example. Customers may use the virtual reality platform to see how well the garment fits them. It has been observed by Thomas Pink that the programme led to an increase in their sales.

Image Search Engines

According to various studies, Google image search accounts for approximately 22% of all queries on the Google search engine. Google Images is one of the most famous and widely used internet search engines. Using images effectively and strategically proves to be an advantage for businesses to succeed in e-commerce.

Clients can use Google Images to look for merchandise by means of capturing pictures of the products and using reverse picture seek to locate images that might be related to the product. Companies can take advantage of this by uploading a file for every object they promote on their internet shop.

Through adding informative titles and alt texts to these pictures, they could ensure that the Google image crawlers recognise what the image is about. After photos are indexed through Google, they'll, with a bit of luck, have a better Google ranking compared to their competitors' and accelerate B2C engagements.

Web Scraping

A technique for obtaining data from websites is web scraping. There are many advantages of web scraping provided by companies to e-commerce businesses, like: a) ready to use customer data, product data, and financial data; b) time efficiency c) no legal issues d) accurate and consistent data, etc.

The benefits of successful web scraping initiatives enable companies:

- To remain competitive in the market by comparing their price with the price of the competitors
- To understand customers' buying behaviours to find customized products for them.
- To find and work with returning users that bring significant income to the company.
- To conduct customer sentiment and buying analysis.

Python: Nowadays, the most commonly used programming language for web scraping is Python.

ERP Systems

ERP systems manage the entire supply chain, right from delivery to warehouses. ERP systems automate the issuance of invoices and track inventory. While automating supply chain operations, ERP

systems also produce reports that can aid the decision-making process. They generate financial reports, and some ERP systems have the ability to calculate the corporate and product carbon footprints of companies.

These systems may identify even the minute present carbon emission pain points and can take various possible steps to strengthen the social, environmental, and governance (ESG) position. By implementing ERP systems, companies can increase their sales. For example, a survey done by PwC has revealed that over 75% of consumers think about companies' ESG policies before making any purchase.

E-Wallets

An "e-wallet," is like an electronic card that is linked to a person's bank account. Online purchases from a computer or a smartphone can be easily done with the help of e-wallets.

Software and data are an e-wallet's two main components. Security and encryption of the data are done by software. The information that is provided by the users, such as names, shipping addresses, payment amounts, preferred payment options, credit or debit card information, etc, is contained in the information component of the database.

E-wallets have three main benefits:

- Wallets increase security.
- Ease of payment reduces the chances of cart abandonment.
- The refund process is simple and easy, taking only a few seconds.

Pop-ups

Pop-ups are the messages that alert users about some discounts or unchecked-out carts. The aim of pop-ups is to reduce site leakage and cart abandonment.

Other Online Sales Boost Technologies:

Apart from improving the online sales with applications, there are other techniques to boost online sales. We are discussing a few in detail:

- **Push Notifications:** The lost revenue could be recovered by sending push mobile notifications to the customers.
- **Make Your Emails Mobile-Friendly:** Responsive and user friendly templates should be used which can be easily checked even on traffic signals during the waiting time. Don't overload the mail with bulky images as the e mail with large images takes longer time to get open.
- **Social Media Sharing:** Social media proves to be a very accessible and powerful tool for e commerce. Now-a-days the customers are usually logged in on their mobile which makes it convenient for them to swap the content 24*7
- **GPS Promotions:** Promotions based on a customer's location are always useful for acquiring and keeping customers retained.
- **Use ad Extensions:** It makes the process of online shopping easy and fast for a potential customer and helps him to find exactly what he wants to buy. This way they go to the advertised site instead of its other competitor's websites available.
- **Display Customer Testimonials:** Make sure to include glowing testimonials and reviews from fervent brand evangelists who are raving about how wonderful you are because the influence of a legion of pleased customers is significantly greater than that of even the most persuasive sales copy. These may appear on your home page, pricing page, product page, or landing page.
- **Reduce Checkout Friction:** According to Business Insider, 63% of the \$4 trillion worth of online merchandise that was left in incomplete shopping carts in the past year was recoverable. This is a really stunning measurement, and one that uncovers that it is so vital to nail your checkout interaction.
- Reduce the number of steps in your checkout process that may discourage a potential customer from making a purchase. In forms, eliminate unnecessary fields. Don't time them out and force them to start from scratch.

- Provide as Many Payment Options as Possible-In terms of how they actually pay for goods and services, consumers now have more options than ever before, and not everyone prefers to use Visa Card. You are making it simpler for prospects to give you money by providing a wider range of payment options, some of which include newer services that are becoming increasingly popular on mobile devices. Although optimizing your website—as well as the checkout process, as was discussed earlier—to include all of these options can be challenging, it is a great way to boost online sales—especially if your website receives a lot of mobile traffic. An SSL certificate is the most effective way to protect your website. The procedure, cost, and kind of certificate you need depend on how big your site is, your industry, and the service provider you choose.

Road Ahead

The power of the internet and technology is visible to everyone in society in the way things are done. The change in technology at such a pace wasn't seen before, and is going to have the greatest impact in the years to come. Many companies have begun offering customised training that meets your personal goals as per your choice and convenience, keeping in mind the potential and promising career options. To sharpen the skills needed to embrace these technologies, the online mode of learning has provided an extra edge to all the learners sitting across borders and boundaries. Hopefully, when companies compete in the technological arena, the customers will obviously get the benefit of it. Without technology, e-commerce would never have come into existence. The driving force behind the growing trend of e-commerce is still technology. Additionally, as technology develops, retailers' and customers' options continue to improve.

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A BRIEF STUDY ON CLOUD COMPUTING

Mahesh Kumar Sharma*

ABSTRACT

Cloud computing is the provision of online computing resources. It offers cost savings, scalability, high performance, scale economy and more. For many companies, cloud migration is directly related to data and IT modernization. When the phrase "cloud" first appeared in the early 2000s, there was an esoteric ring to it. The idea of accessing computer resources from somewhere other than the local IT infrastructure (paradise) sounds like science fiction. The facts deepen and change forever the technology and the way we do business. Cloud computing is the Internet-based on-demand access to computer resources: server applications (physical servers and virtual servers), storage, development tools, network capabilities, and more hosted at a remote data center managed by a cloud services provider (or CSP). This research paper discusses the services provided by cloud computing such as SaaS, PaaS, IaaS and so on. A detailed discussion of the different types of cloud computing (public cloud, private cloud, hybrid cloud, and multi-cloud, etc.) and their security as well as discussing many issues and their solutions of cloud computing.

KEYWORDS: *Cloud Computing, Cloud Service Provider, Software.*

Introduction

Cloud computing is a model of computing that provides on-demand access to shared computing resources, such as servers, storage, applications, and services, over the internet. This model offers a range of benefits, including scalability, flexibility, and cost-effectiveness. It allows businesses to store and access data from anywhere in the world, without the need for physical infrastructure. However, the adoption of cloud computing also raises various challenges and issues, such as security, privacy, and interoperability.

The history of cloud computing dates to the 1950s when mainframe computers were first developed. These early mainframes were incredibly large and expensive and were typically used by large corporations and government agencies. To make the most efficient use of these machines, multiple users would access them through dumb terminals, which had limited processing power and storage capacity.

In the 1960s, the concept of time-sharing emerged, which allowed multiple users to access a single mainframe computer simultaneously. This was a significant step towards the development of cloud computing, as it enabled the sharing of computing resources across multiple users.

In the 1990s, the internet started to gain popularity, and companies began to explore new ways to deliver software and services to users over the web. This led to the development of application service providers (ASPs), which provided businesses with access to applications and services over the internet.

In the early 2000s, Amazon.com launched Amazon Web Services (AWS), which provided a way for developers to rent computing resources over the internet. This was followed by the launch of other cloud computing platforms, such as Microsoft Azure and Google Cloud Platform.

Cloud computing has continued to evolve since then, with the introduction of new technologies such as containers and serverless computing. Today, cloud computing is a key part of the technology landscape and is used by businesses of all sizes to deliver applications, store data, and access computing resources on-demand.

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Objectives of the Study

- Understanding the concept of cloud computing: The study should aim to provide a clear understanding of what cloud computing is, its characteristics, and how it works.
- Identifying the benefits of cloud computing: The study should explore the various benefits of cloud computing, including cost savings, scalability, flexibility, and accessibility.
- Examining the challenges of cloud computing: The study should identify the challenges associated with cloud computing, including security, privacy, and data management issues.
- Providing recommendations for businesses considering cloud computing: The study should provide practical recommendations for businesses considering adopting cloud computing, including best practices for migration, security, and data management.

Review of Literature

Cloud computing is a modern technological phenomenon that has revolutionized the way businesses operate. It involves the provision of computing resources, including software, storage, and processing power, over the internet. Cloud computing has become increasingly popular over the past decade, with more and more businesses adopting this technology to improve their operations and reduce costs. In a brief study of cloud computing, it is important to understand the key concepts and benefits of this technology. One of the earliest and most comprehensive works on cloud computing is the book "Cloud Computing: Principles and Paradigms" (2013) by Rajkumar Buyya, James Broberg, and Andrzej Goscinski. This book provides an in-depth exploration of the principles, concepts, and architectures of cloud computing. It also covers various aspects of cloud computing, including deployment models, service models, security, and privacy.

Another important work is "Cloud Computing for Dummies" (2009) by Judith Hurwitz, Robin Bloor, Marcia Kaufman, and Fern Halper. This book provides a beginner-friendly introduction to cloud computing, covering its key concepts, benefits, and challenges. It also provides guidance on how to select the right cloud provider and how to manage cloud resources effectively. A study by Hou et al. (2019) explored the use of cloud computing for bioinformatics research. The study found that cloud computing enabled researchers to perform large-scale genome analysis more efficiently and cost-effectively than traditional methods.

Another study by Abdelkader et al. (2019) investigated the use of cloud computing for healthcare research. The study found that cloud computing enabled healthcare researchers to access and analyze large volumes of healthcare data, which could help improve patient outcomes and reduce healthcare costs. A more recent work is the article "A Comparative analysis: Grid, Cluster and cloud computing" (2014) by Kiranjot Kaur and Anjandeeep Kaur Rai. This article provides a comprehensive review of the advantages, disadvantages, and compared the features of cluster computing, grid computing and cloud computing. In conclusion, the literature on cloud computing is vast and constantly evolving. The works mentioned above provide a good starting point for a brief study of cloud computing, covering its key concepts, benefits, challenges, and prospects.

Services Provided by Cloud Computing

Cloud computing is a model for delivering on-demand computing services over the internet. Some of the services provided by cloud computing include:

- **Infrastructure as a Service (IaaS):** IaaS provides users with virtualized computing resources such as servers, storage, and network infrastructure. Users can scale up or down their computing resources as needed without the need to invest in physical hardware.
- **Platform as a Service (PaaS):** PaaS provides users with a platform to develop, test, and deploy applications without the need to manage the underlying infrastructure. PaaS providers offer a range of tools and services that help users build, deploy, and manage applications.
- **Software as a Service (SaaS):** SaaS provides users with access to software applications over the internet. SaaS providers host and manage the software, and users can access it from anywhere with an internet connection.
- **Database as a Service (DBaaS):** DBaaS provides users with a cloud-based database platform that they can use to store, manage, and analyze data. DBaaS providers offer a range of database technologies, including relational and NoSQL databases.

- **Function as a Service (FaaS):** FaaS provides users with a platform to run code in response to events, without the need to manage the underlying infrastructure. FaaS providers offer a serverless environment where users can upload their code and run it on-demand.
 - **Disaster Recovery as a Service (DRaaS):** DRaaS provides users with a cloud-based solution for disaster recovery. DRaaS providers offer backup and recovery services to ensure that users' data is protected in the event of a disaster.
- Overall, cloud computing provides a flexible and scalable platform for delivering a wide range of computing services to users over the internet.
- **Cloud Computing Deployment Models:** Cloud computing deployment models refer to the different ways in which cloud computing services are made available to users. The four main cloud computing deployment models are:
 - **Public Cloud:** In a public cloud, cloud services are provided over the internet by a third-party provider, who makes resources available to the public. Public cloud services are typically offered on a pay-per-use basis and are accessible to anyone with an internet connection. Examples of public cloud providers include Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform.
 - **Private Cloud:** In a private cloud, cloud services are provided within an organization's own data center, rather than over the internet. Private clouds are designed to provide the same benefits as public clouds, such as scalability, flexibility, and efficiency, but are only accessible to authorized users within the organization. Private clouds are often used by large organizations that require a high degree of security and control over their data.
 - **Hybrid Cloud:** A hybrid cloud is a combination of public and private cloud deployment models. In a hybrid cloud, an organization can use public cloud services for non-sensitive data and applications, while keeping sensitive data and applications on-premises in a private cloud. Hybrid clouds offer greater flexibility and scalability than private clouds alone, while still allowing organizations to maintain control over their sensitive data.
 - **Multi-Cloud:** A multi-cloud deployment model involves using multiple public cloud providers to host an organization's applications and data. This allows organizations to take advantage of the strengths and features of different cloud providers, such as cost savings, geographic location, or specialized services. Multi-cloud strategies can help organizations avoid vendor lock-in and reduce the risk of downtime or data loss due to a single cloud provider outage.: A multi-cloud deployment model involves using multiple public cloud providers to host an organization's applications and data.

Benefits of Cloud Computing

Cloud computing offers a range of benefits, including:

- **Scalability:** Cloud computing allows organizations to scale their resources up or down as needed, depending on their changing requirements.
- **Cost-effectiveness:** Cloud computing eliminates the need for organizations to invest in expensive physical infrastructure, reducing costs associated with hardware, maintenance, and upgrades.
- **Disaster Recovery:** Cloud computing provides an easy and efficient way to backup and restore data in the event of a disaster. This ensures that critical business data is always available and protected.
- **Increased Collaboration:** Cloud computing allows users to collaborate and share files and resources from anywhere, anytime. This improves productivity and teamwork among employees.
- **Flexibility:** Cloud computing provides a high degree of flexibility in terms of resource allocation, which enables organizations to quickly and easily adjust their computing resources to meet changing business needs.
- **Increased Mobility:** Cloud computing enables users to access their applications and data from any device with an internet connection, making it easier to work remotely or on-the-go.
- **Automatic Software Updates:** Cloud computing providers typically handle software updates and patches, which eliminates the need for organizations to manage their own software updates.

- **Green Computing:** Cloud computing is more energy-efficient compared to traditional computing models because it utilizes shared resources more efficiently, which reduces energy consumption and carbon footprint.

These benefits of cloud computing have led to increased adoption and integration of cloud computing technologies in various industries and organizations.

Challenges of Cloud Computing

Despite its many benefits, cloud computing also presents several challenges, including:

- **Security and Privacy:** One of the biggest challenges of cloud computing is security and privacy. With cloud computing, data is stored and processed in remote servers, and organizations have limited control over the security measures implemented by cloud service providers. This can lead to concerns over data breaches, hacking, and unauthorized access to sensitive information. In addition, compliance with regulations and standards, such as GDPR and HIPAA, can be difficult to achieve when using cloud services.
- **Dependency on Internet Connectivity:** Cloud computing relies heavily on internet connectivity, and any interruption in internet service can lead to disruptions in cloud-based applications and services. This can impact productivity and can cause downtime for organizations that rely on cloud computing.
- **Vendor Lock-in:** Organizations that adopt cloud computing may become dependent on a single cloud service provider, which can limit their flexibility and can make it difficult to switch to another provider. This can lead to concerns over vendor lock-in, where organizations are unable to switch providers due to the high costs and complexity involved.
- **Data Portability:** While cloud computing offers flexibility and scalability, it can also create challenges around data portability. Organizations may have difficulty moving their data from one cloud provider to another, which can impact their ability to switch providers or to maintain backups.
- **Lack of Standards:** Cloud computing is a rapidly evolving technology, and there are currently no widely accepted standards for cloud computing. This can make it difficult for organizations to compare different cloud services and to ensure interoperability between different cloud providers.
- **Cost Management:** While cloud computing can be cost-effective, it can also lead to unexpected costs if not managed properly. Organizations need to be aware of the different pricing models used by cloud service providers and need to monitor their usage to avoid unexpected costs.

Solutions of the Challenges of Cloud Computing

Cloud computing has brought numerous benefits to businesses, but it also poses several challenges that need to be addressed. Some solutions to these challenges include:

- **Security:** Cloud computing introduces new security risks, such as data breaches, unauthorized access, and compliance violations. To address these risks, businesses should implement robust security protocols, such as data encryption, multi-factor authentication, and regular security audits. They should also choose cloud providers that offer strong security measures, including firewalls, intrusion detection, and threat monitoring.
- **Data management:** Cloud computing involves storing and managing large amounts of data, which can be challenging for businesses. To address this challenge, businesses should develop a data management strategy that includes data backup, disaster recovery, and data lifecycle management. They should also choose cloud providers that offer data management tools and services, such as data migration and data governance.
- **Cost management:** While cloud computing can be cost-effective, it can also lead to unexpected costs if not managed properly. To address this challenge, businesses should implement a cost management strategy that includes monitoring cloud usage, optimizing resource allocation, and negotiating pricing with cloud providers. They should also choose cloud providers that offer transparent pricing and flexible payment models.
- **Compliance:** Cloud computing can raise compliance concerns, especially for businesses that operate in regulated industries. To address this challenge, businesses should choose cloud

providers that comply with industry regulations, such as HIPAA, PCI, and GDPR. They should also implement compliance policies and procedures, such as data retention policies and access controls, and regularly audit compliance.

- **Performance:** Cloud computing performance can be affected by factors such as network latency, bandwidth, and server availability. To address this challenge, businesses should choose cloud providers that offer reliable and high-performance infrastructure, such as load balancing, auto-scaling, and CDN. They should also monitor cloud performance and optimize resources to ensure optimal performance.

Conclusion

Cloud computing is a rapidly growing technology that offers a range of benefits to businesses of all sizes. It has transformed the way we store, access, and share data, enabling organizations to be more agile, flexible, and cost-effective. However, it also presents several challenges, including security concerns and data governance issues. As such, organizations must carefully consider these issues when adopting cloud computing technology. Security and privacy, dependency on internet connectivity, vendor lock-in, data portability, lack of standards, and cost management are some of the key challenges that need to be addressed when adopting cloud computing. By understanding these challenges and implementing appropriate strategies, organizations and individuals can successfully leverage the benefits of cloud computing while managing the associated risks.

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E- PAYMENT IN CASHLESS ECONOMY OF INDIA: CHALLENGES AND PROSPECTS

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ABSTRACT

In India, a cashless transaction is an attempt to move towards a cashless economy by reducing the need of hard money. The study's primary goal is to present India's current digital utilization status. Currency in contrast to other industrialized countries, and identify the problems and opportunities connected with cashless transactions in India. Data from several countries concerning the use of digital currencies has been obtained. According to the study's conclusions, the implementation of a cashless economy in India is a step in the right direction for economic growth and development. It has been carried out in order to understand the problems and opportunities of a cashless economy by promoting electronic money instruments, establishing electronic financial infrastructures, and instilling digital transaction habits in individuals. The announcement of demonetization and digital India programmes are mark a watershed moment in India's transition to a cashless economy. The study recommends that more people should begin using digital payment methods appropriately that will support a cashless or less cash economy.

KEYWORDS: Cashless Economy, Digital Currency, E-payment, Internet Users, Digital App.

Introduction

A cashless economy is one in which exchanges of goods and services do not often take place with currency. It doesn't mean that there are no cash transactions at all in the economy; rather, it means that there are only the fewest possible cash-based transactions. A cashless economy, also known as an e-payment system, is one in which a society has little to no cash flow. As a result, transactions are done through electronic channels including debit cards, electronic funds transfers, mobile payments, multi-functional ATMs, and internet banking. The economy primarily uses plastic or digital currency and uses little cash or money in paper form. In other words, it alludes to the banking system's extensive use of computer technology. It is intended to remove the customary obstacles standing in the way of millions of Indians becoming financially included and to deliver low-cost, secure, and convenient financial services to urban, semi-urban, and rural areas nationwide. However, a cashless economy is one in which it is assumed that there are no transaction frictions that can be mitigated by using money balances, and which consequently provides a reason for holding such balances even when they earn rate of return. That is not the entire absence of cash yet it. Cash is still used occasionally, but there is now a safe, easy, and economical alternative. It is a form of capitalism where products and services are purchased and paid for using digital channels.

The Study's Objectives

- To look at the present Cashless economy framework.
- To comprehend the advantages and difficulties of a cashless India.

Modes of Cashless Transactions

- **Online Transfers- NEFT or RTGS:** Online transfers using NEFT or RTGS are the most straightforward way to conduct cashless transactions. You require internet banking functionality in order to conduct online money transfers. Online transfer utilising NEFT or RTGS is considerably faster than cheque or DD. Online transfers are accessible from anywhere with an internet connection.

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- **E-Wallets:** The next cashless payment option is the e-Wallet. With an e-Wallet, you may buy anything from groceries to plane tickets. Both the customer and the merchant need smart phones with active internet connections in order to utilise an e-wallet. PayPal is the most well-known example of an e-wallet.
- **UPI Applications:** UPI is a mobile platform that enables a variety of financial transactions on a smartphone. Without entering bank details, UPI enables you to send or receive money using a virtual payment address. Bank enrollment is required for merchants who wish to accept UPI payments. The merchant would need a current account with a bank in order to take UPI payments, just like with a POS device. SBI Pay, Union Bank UPI App, Phonepee, etc. are a few examples of UPI apps.
- **Credit Card or Debit Card:** Credit card or debit card is another cashless payment mechanism. In India, credit cards and debit cards were not widely used. But, usage of credit card and debit card is increasing presently because of demonetization. The absence of a swipe card facility at the merchant's end is one of this payment method's restrictions.
- **Mobile Wallet:** It functions essentially as a mobile phone virtual wallet. Information on credit cards or debit cards can be stored digitally on a mobile device using a mobile wallet. Instead of utilising a physical plastic card to make transactions, a user can pay using a Smartphone, tablet, or smart watch. A user must register for a mobile wallet provider's service. After then, funds are added to the "mobile wallet" account using a debit or credit card, a bank account online transaction, cash or another method.
- **Cheque:** The cheque is one of the earliest ways of cashless payment. Everyone is familiar with this technique. Using this approach, you give the other person a check for the specified sum. The check is deposited at the appropriate bank. A clearing house is used by the bank to handle payment processing. There is documentation of every cheque transaction that serves as proof of payment. Nonetheless, there are times when cheque payments are returned because of a mismatched signature or insufficient funds. We have various cashless payment solutions we can employ to prevent such problems.
- **Demand Draft:** Demand draughts are a further simple cashless transaction method. Receiving payment from anyone is the safest course of action. Because the banker has signed the demand draught (DD), it never goes bad. Demand draughts and checks have the drawback that you must visit a bank to deposit them. It takes longer for a check or DD to clear.
- **Unstructured Supplementary Service Data:** If you don't have a smart phone or an internet connection, you can utilise the USSD cashless option. Mobile banking is a service that uses unstructured supplementary service data.
- **Aadhaar Enabled Payment System:** One of the greatest cashless payment systems is Aadhaar Enabled Payment System (AEPS). Similar to a micro ATM, AEPS conducts transactions using a smartphone and a finger-print reader. It is necessary to link your Aadhaar card to your bank account in order to use this function. You can use AEPS to carry out operations like cash withdrawals, cash deposits, Aadhar to Aadhar fund transfers, etc.

Cashless Challenges in India There are many challenges facing the introduction of cashless system of payment in Indian economy. They are as follows:

High Cash Dependency

India has a high cash penetration in almost all of its transactions that happen as B2C transactions. Total cash flow in the market accounts for 12.04% of the GDP, which is among the highest in developing countries.

Lack of Digital Infrastructure

Lack of adequate infrastructure is a major hurdle in setting up a cashless economy. Inefficient banking systems, poor digital infrastructure, poor internet connectivity are also create problem in smooth functioning of transactions or in other cashless activities. The remote areas are still not having the banks at their doorstep. There are no ATM facilities in the remote areas. In 2014, there were just 18 ATMs and 13 commercial bank branches for every 100,000 adults – in comparison; the number in Brazil was 129 and 47 respectively. From 2013 to 2015, debit cards grew twice as fast as the number of PoS terminals and 1.5 times the number of ATMs, with the majority of the new infrastructure-taking root in urban centers. The

banks need to be fully equipped to handle the surge in e-transactions. The first and foremost requirement of a digital economy is the penetration of internet and smart phone. Only 30% of subscriber use smart phones, over 70% of them are in cities while 70% of Indian population lives in villages.

Financial Inclusion

About 60% of the country's population has bank accounts. Still large number of people is not having the bank accounts. More than 228 million accounts were opened under PMJDY (Pradhan Mantri Jan Dhan Yojana) scheme until July 2016. 252 Inspira- Journal of Commerce, Economics & Computer Science: Volume 04, No. 01, Jan.-Mar., 2018

Cyber Security Issues

Another mounting challenge in digital payments is cyber security issues, with the magnitude with which digital transaction-taking place after demonetization the risk of online fraud, leakage of confidential information, cyber-crimes, malware and virus attacks has been raising. This is the biggest concern to deal with in order to popularize digital payments.

Low Literacy Rate

Low literacy rate hinders the accessibility of banking services. Citizens should not only know how to read and write but also possess basic ICT literacy to fully enjoy the benefits of e-payments.

Costly Swipe Machines

Swipe machines are also not subsidy free. Rich shopkeepers can only afford it. It cannot be expected from an auto driver or a normal grocery seller to afford swipe card machines. Besides, many street vendors, shopkeepers do not know how to use swipe machines.

Few Banks in Villages

The capital city New Delhi alone has about 20 HDFC bank branches. There are several villages and Tehsils that do not even have one. More the banks, more the cash deposits in accounts. Banks in villages should be helpful in teaching the residents the process, usage and benefits of plastic cards

Opportunities of Cashless Economy

The expenditure incurred in printing and transportation of currency notes is reduced. Cash less economy helps in curbing generation of black money.

Reduce Cost of Printing Money

Printing money is the direct cost that affects the bank (Reserve Bank of India). In the cash system of economy where maximum people will work on the cash transaction, government has to produce more and more cash notes.

Decreased Crimes

The risk of theft will continue until people carry cash and by going cashless, the same can be reduced. The government, however, has to take measures to curb the online scam and identity theft incidents.

Cost Effective to Banks

Normally, if bank transactions are done manually, it costs nearly Rs. 40 to 45 and the same is done through internet it costs 7 to 8. Simultaneously, it same transactions is done through either U Mobile or ATM it hardly costs Rs. 12 to 14 and Rs. 3 to 4 respectively. Production of coins and paper currency is indeed an expensive endeavor.

Safe and Secure

Both it is safer for bank and customer as well; it keeps high degree of secrecy. If stolen, it is easy to block a credit card or mobile wallet remotely.

Improved Economic Growth

Shopping online gets easy as one can use a number of payment options; from credit and debit cards to net banking. In addition to this, going cashless also has health benefits. With physical currency, the chance of spreading of germs is more.

Control of Black Money and Check for Anti Money Laundry

Even transactions can be done through e banking but it can be traced while it is very difficult to trace the transactions in cash. There are certain check also in depositing and withdrawing money through bank accounts. Hence, it will definitely control over black money and money laundering in the days to come.

Higher Revenue

A derivative advantage of transparent transactions is collection of tax will increase. Thus, generating higher revenue for the government, this in turn will be converted into public welfare policies and schemes.

Saves Money and Time

Presently banking is required good number of staff to attend and redress the complaints at different stages. They can reduce costs, as they no longer need the manual accounting work to be done.

Transparency

It is not just the easiest way to transact but also brings about a lot more transparency in the financial system, which helps to curb generation of black money.

Less Bureaucracy and Red Tape

By using electronic methods to conduct cashless transactions, it is possible to track wire transfers and hold individuals accountable, which lowers corruption and speeds up service.

Benefit to Government

The government will gain from the cashless economy in the areas of effective taxes and budgeting, enhanced regulatory services, enhanced administrative procedures (automation), and decreased costs associated with managing and administering money.

Maintenance Cost

Maintenance includes the storage of notes, their transfer to remote locations, their protection, and equipment to spot fake currency. The distribution of cash via ATMs at various locations is the other important component of maintenance. All of this maintenance reportedly cost the Indian government 5% of its GDP. Simply put, we can save almost 500 crores by using this method alone.

Suggestions

A cashless economy is not merely a government initiative; it requires a revolution to make people aware of its advantages and ultimately give them the power to conduct everyday business online. A more open and accountable society will result from all remittances being made online, from one's wage to their mobile recharge. Although a complete cashless society may not be attainable in the near future, ongoing technology advancements in the payment system will undoubtedly increase humanity's access to cashless transactions.

Although the acceptance of one type of cashless payment will have an immediate impact on the adoption of another type of cashless payment, the effects of the adoption of cashless payment on economic growth will only become clearly apparent over time. So, any regulation that encourages cashless transactions won't have an immediate impact on the economy. According to the study, a very safe choice for the future card would be to evolve to use biometric ID (fingerprints, eye scans, etc.). Biometric ID is very difficult to copy. The two-factor authentication method for online transactions has to be improved by the banks. The suggested measures include allowing the first five interbank transactions to be made without charge in order to boost online money transfers, as well as stimulating the installation of point of sale (POS) machines by reducing merchant discount rate (MDR). Also, additional ATMs should be installed to encourage the use of plastic money. Also, it is urged that the government remove its current surcharges, service fees, and convenience charges for card and digital payments.

Conclusion

India urgently needs to transition to a cashless economy. One benefit is that it will reduce the enormous sums of money needed each year for currency printing and maintenance. Nowadays, less than 1% of total consumer spending is made through cashless methods. The introduction of shopping centres, multiplexes, internet retailers, and malls encourages customers to utilise plastic cards. When preparing for a cashless economy, the government must take the appropriate actions and think through certain policy options. Cyber-attacks must be stopped from the payment systems. Becoming cashless offers a lot more advantages to people, businesses, and the government than just ease. The use of electronic payments is expanding, which increases GDP and consumption.

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A STUDY ON CUSTOMER SATISFACTION TOWARDS SELECTED RETAIL CHAIN STORES IN MOHALI DISTRICT OF PUNJAB

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ABSTRACT

To remain competitive in the market, it is crucial for every organization to maintain customer satisfaction. Offering what your customers want is the key to successful retailing. Customer satisfaction is the only sign that needs to be looked at in order to gauge how well clients' expectations are being met. In India, the retail sector has had very significant and quick expansion during the last few years. Thus, this paper is an attempt in order to know the customer satisfaction and hence customers from three retail chains (RELIANCE, MORE, and EASYDAY) in Mohali district of Punjab, were surveyed for the study. The study was based on both primary and secondary sources of data. Primary data collection was done with the help of questionnaires and conducting personal interviews with the respondents. In order to achieve the primary objective of the study, data has been collected from a sample of 150 respondents or customers who visited the selected retail chains and various secondary sources of data helped in achieving the desired objective. The study found that price and physical design were the most important aspects and followed by responsiveness and product quality. The findings further suggest that management should focus on aspects like physical design, product quality, responsiveness, and price strategies.

KEYWORDS: Retail Chain Stores, Customer Satisfaction, Punjab, Easy Day, Reliance.

Introduction

Retailing is the most important constituent of marketing where the seller meets the eventual consumer who exchanges value for the product and thus endorses the very existence of commerce. The retailer is the last connection in the distribution chain and his efforts to construct demand and satisfy needs pave the way for the financial movement. Retailing is a business, easy to enter, with moderately low funds and infrastructural necessities. One of the industries with the quickest growth is the retail market in India. India's retail market is expected to grow from US\$ 672 billion in 2017 to US\$ 1,100 trillion by 2020. The sixth most popular retail location worldwide is India. When it comes to the number of retail establishments per person, the nation is among the highest in the world. The retail industry in India is expanding rapidly, with retail development taking place not only in major cities and metro areas but also in Tier-II and Tier-III locations. The organized retail market in India is also being driven by strong economic growth, a changing demographic composition, rising disposable incomes, urbanization, and changing customer tastes and preferences.

Increased participation from private and foreign businesses has boosted the Indian retail sector. Large retail players are attracted to India because of its price competitiveness and use it as a sourcing base. To attract Foreign Direct Investment (FDI) to the retail sector, the Indian government has implemented reforms. The government has allowed 100% FDI in single-brand retail and 51% FDI in multi-brand retail under automatic mechanisms, which is intended to improve Make in India and the ease of doing business. The government also wants to allow 100% FDI in e-commerce. The government has authorized 100% FDI in the retail trade of food items made in India.

There are many different collections on the shelf in retail chains. All sorts are stocked in convenient locations so that customers can take, guarantee, and authenticate the goods with ease.

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According to Roberts-Lombard (2009), customer satisfaction is "the extent to which a product's or service's performance meets the client's expectations. Customers are satisfied when performance meets or surpasses expectations; they are not satisfied when performance falls short of expectations. Consumer satisfaction is a good indicator of how successfully an association is addressing consumer requests. All the retail chain stores' operations are geared towards achieving customer pleasure, which results in client retention, which is a crucial component of corporate expansion.

Important aspects of service quality in the retail industry have been examined in several studies, including those by Dabholkar et al. (1996), Sweeney et al. (1997), Kim & Jin (2002), and Long & McMellon (2004). The importance of physical aspects, reliability, interpersonal interactions, problem-solving, and policy dimensions was specifically highlighted by Vázquez et al. (2001) and Huang (2009). For the purposes of this research, these dimensions are utilised.

Review of Literature

Jyothi & Rao (2016) studied consumer behavior patterns in terms of their perceptions and preferences regarding the shopping patterns and store attributes that influence the selection of retail stores. The Methodology implemented for the present study is through the collection of data and information from various sources. The questionnaire was filled up by 150 respondents. The results suggest that retailers should keep themselves and their personnel updated with the latest entrant products in the market to keep hold of their customers demanding more value for their money.

Jhamb & Kiran (2011) tried to analyze the retail industry in India. The paper recognized the drivers which influence the growth of the Indian retail market, the major factors affecting the retail trade and performed the SWOT analysis of organized retail in India. The results of the study represent that infrastructure, economic growth, and changing demographics of customers are the key drivers of organized retail in India. The locality of the retail store, management style, and ample salaries to personnel improve the effectiveness of retail business and are significant factors for retailers' success.

Ramya (2015) made an attempt to investigate the relationship between the different determinants & the customer experience in two types of different retail formats which can be normally witnessed in Indian markets. The questionnaire was filled up by 418 respondents. Frequency, percentage, and multiple linear regression techniques were used to evaluate the data. In the case of supermarkets previous experience, atmosphere, price, social surroundings, and alternating channel experience play a key role in building a superior customer experience.

Sangvikar & Katole (2012) focused on the customer's purchasing patterns in different stores based on their spending pattern, product availability and preferred stores etc. They observed that the customers prefer retail outlets because of price discounts, followed by a variety of products in the store and ease to the customer. Researchers have also examined that departmental stores are most accepted amongst consumers. Customer's purchase behavior fluctuates with the price and accessibility of products and customer's expenditure patterns shrivels due to the poor quality of products.

Hypothesis

- Customer satisfaction rises as product quality does, proportionally.
- Customer satisfaction increases with a better level of responsiveness.
- Pricing practices having an impact on customers' levels of satisfaction.
- Chain stores with better physical layouts and appearances have higher customer satisfaction

Research Methodology

A descriptive research technique was applied in this study. Data were gathered for the study's purposes from both secondary and primary sources. However, original sources of data received the greatest amount of attention. All the primary data were gathered through the distribution of a questionnaire and in-person interviews with current customers of retail chain businesses. The interviewer personally questioned the respondents, and the interviewer filled out the questionnaire in accordance with their responses. RELIANCE, MORE, and EASYDAY are three well-known retail chains that have been chosen for the study. The information from the respondents was gathered using the mall intercept interview technique. There were 150 responders in total for the survey. Data that were gathered were computed and examined. The study made use of SPSS software to make the data useful and relevant.

Data Analysis

Out of 120 respondents in the current study, 55% were men and 45% were women. 40.8% of the respondents are under 30, 52.5% are between 31 and 40, and the remaining respondents are above 40. 19.2% of respondents have at least a higher secondary education, 42.5% have a degree, and 38.3% have a postgraduate degree. 36.6% of the total respondents are active military personnel, 15.9% are businessmen, and 47.5% are housewives.

Table 1

Determinants	Mean Score	Standard Deviation
Product Quality	4.0360	.54937
Responsiveness	4.1758	.56358
Physical Design	3.6784	.41036
Pricing Policy	3.4965	.54589

Source: Computed

The above table indicates the mean for responsiveness is the highest among other retail stores and followed by the mean for Product Quality & the mean for Physical Design. The mean for Pricing Policy (3.4965) is the lowest for retail stores under study.

Correlation Analysis

To determine the strength and direction of the link between the determinants employed in the current investigation, correlation analysis was conducted. The degree of connection between independent and dependent variables is all good, as indicated in table 2. At a 95% confidence level, product quality, responsiveness, pricing, and physical design are all positively and significantly connected to consumer happiness.

Table 2: Correlation Analysis Output

Sr. No.	Variables	Mean	SD	1	2	3	4	5
1	Product Quality	4.0360	.54937	1				
2	Responsiveness	4.1758	.56358	.540	1			
3	Physical Design	3.6784	.41036	.171	.368	1		
4	Pricing Policy	3.4965	.54589	.424	.298	-.009	1	
5	Customer Satisfaction	3.82953	.52175	.497	.586	.321	.361	1

Source: Computed

Customer Satisfaction Issues with Chain Retail Stores

To evaluate the model for customer satisfaction, multiple-regression analysis was performed using the four elements as independent variables. According to the SPSS output, the product quality is statistically significant at the 5% level of significance (Sig t =.009) and has a positive beta. It implies that customer pleasure is significantly positively impacted by product quality.

Table 3: Regression Analysis

Independent Variables	Beta	T-value	Significant
Product Quality	.232	2.642	.009
Responsiveness	.304	3.519	.001
Physical Design	.166	2.265	.025
Pricing Policy	.160	2.238	.027

Source: Computed

The SPSS result also shows that responsiveness has a positive beta and is statistically significant at the 5% level. This indicates that timeliness significantly improves customer satisfaction. Price, the third independent variable, significantly improves consumer happiness at retail chains. At a 5% level of significance, the physical appearance of the retail stores is likewise statistically significant (t =.027) and has a positive beta. This indicates that the physical look of retail locations significantly improves customer happiness.

Conclusion

The findings suggest that chain retail establishments should prioritize how they greet and treat their consumers. Based on the findings, it was found that buyers valued responsiveness and product quality more than pricing and outward look. The creative appeal of retail chain stores must be positive,

the product arrangement must be logical and methodical, and a high standard of cleanliness must always be upheld. To ensure that customer expectations are met and exceeded in this area, there may be a substantial investment in marketing research. Staff members should also have a friendly demeanor and the necessary store expertise thanks to internal training programmes. According to the study's findings, management in this sector must always work to increase customer satisfaction by putting an emphasis on the key elements if they hope to obtain a competitive edge.

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ACCELERATION OF DIGITAL TRANSFORMATION IN AGRICULTURE SECTOR FOR ECONOMIC DEVELOPMENT

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ABSTRACT

Digital India is a campaign launched by the Government of India in order to ensure the Government's services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or making the country digitally empowered in the field of technology. Although the agriculture sector plays a crucial role in the Indian Economy. Digital initiative in agriculture sector India is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. The objectives study is to finds the role of agriculture sector in inclusive development. and the development in agriculture sector after digital transformation. Also finds the opportunities & challenges of digital initiatives in modernization of agriculture sector in India. For the research design, There are two sources for the information used in the analysis. first the secondary data used from official government websites/reports, and the second as responses of farmers towards the constraints of using digital technologies in the agriculture sector of Madhya Pradesh. It also incorporates the researcher's personal observations and measurements of events. On the basis of information collected from the 105 respondent farmers. The finding of the study indicates that hesitation in adopting digital technologies due to small and fragmented land, lack of training and motivation to capitalize on agriculture, lack of skill and awareness, are main lack of subsidies are main hurdles in an adaptation of digitalization in the agriculture sector. The key factors that will determine the success of digital agriculture in India are affordability of technology, ease of access and operations, easy maintenance of systems, timely grievance redressal and appropriate policy support. The study provides a fresh theoretical viewpoint on the digitalization of rural and agricultural growth, which has an impact on the entitlements of millions of farmers nationwide.

KEYWORDS: *Digital India, Digital Initiatives, Agriculture Sector, Economic Development.*

Introduction

Digital India is a campaign launched by the Government of India in order to ensure the Government's services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or making the country digitally empowered in the field of technology. Three important elements of digital India are the creation of digital infrastructure, digital

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literacy, and delivery services digitally all over the country. This project is interconnected by the various governmental departments such as IT, education, agriculture, etc., to achieve a promising bright return. It is headed and planned by the ministry of communications and information technology. This plan will ensure the growth and development in India, especially in the rural areas, by connecting rural regions and remote villages with high-speed internet services. The overall project monitoring will be under the Prime Minister himself. Citizens of digital India may improve their knowledge and skill level after getting covered under the umbrella of the internet. It is an ambitious project that will benefit everyone, especially villagers who travel long distances and waste time and money doing paper works for various reasons. It is the most effective version (with nine pillars: broadband highways, public Internet access program, mobile connectivity everywhere, e-Kranti, e-Governance, information for all, IT for jobs, early harvest programs, and electronics manufacturing) of the already existing National e-Governance Plan.

Role of Agriculture Sector in Economic Development

The agriculture sector contributes roughly 14% of the country's total GDP. Although the agriculture sector plays a crucial role in the Indian Economy, there is a constant drop in this sector while the service sector is comparatively improving.

The role of the agricultural sector in the Indian Economy is:

- **Contribution in GDP:** Since the time of Independence, the agriculture sector has been the major contributor to the country's GDP. In the financial year 1950-1951, agriculture and other related activities had a share of 59% of the country's total GDP in that financial year. Although there is a constant drop in the agriculture sector, it is still one of the most crucial sectors in the Indian Economy. On the other hand, in developed countries such as the UK and USA, the agriculture sector contributes only about 3% of the country's total GDP.
- **Largest Employee Sector:** In India, the agriculture sector has more than half of the total population of the country engaged, which makes it the sector with the most number of employees in the country. Comparing it with the developed nations, India has about 54.6% of the total population in the agriculture sector engaged, while in developed nations such as the UK, USA, France, and Australia, only 2%-6% of its total population is engaged in the agriculture sector.
- **Source of Food:** India is the second-most populous country in the world. And to feed such a huge population, there is always a constant need for a supply of food. Therefore, there is a need for agriculture and a need for less dependency on the agriculture sector for the Economy.
- **Relation between Agricultural and Industrial Sector:** For the continuous manufacturing of products, there is a constant need for raw materials, and to fulfil this need, most of the industries in the country collect this raw material directly from the agricultural fields. In India, around half of the income generated in the industrial sector comes from agricultural-based industries. Therefore, in India, the industrial sector is highly dependent on the agricultural sector.
- **Commercial Significance:** Indian Agriculture is important for the industrial sector and trading purposes both internally and externally. Agro-products such as tea, coffee, sugar, cashew nuts, spices, etc., which are edible and textile products such as jute, cotton, and others contribute 50% and 20% respectively to the total export of the total country. These add up to around 70% of the country's total export and help the country in earning foreign exchange.
- **Contribution to the Government's Revenue:** Agriculture is the most significant source of income for the central and state governments. The government of the country has substantial revenue from rising land revenue. Also, the movement of agricultural goods helps generate revenue for the Indian railways, which helps the government in revenue generation.
- **Economic Planning and Agriculture:** India's planning prospects are also heavily reliant on the agriculture sector. A good harvest always offers momentum to the country's projected economic growth by improving the business climate for the transportation system, manufacturing sectors, internal commerce, and so on.

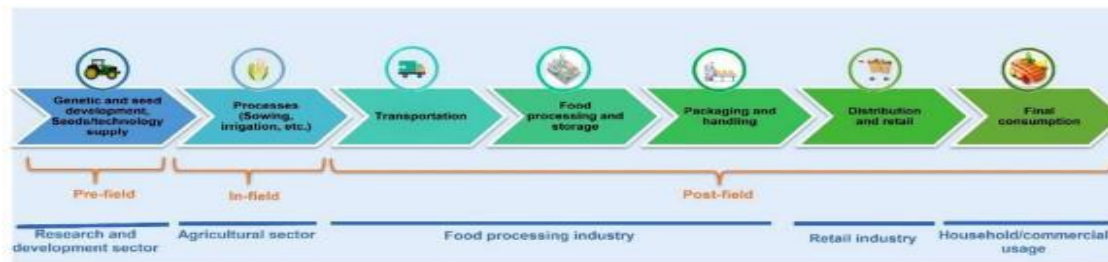


Fig. 2. Agriculture value chain: stages and main functions.

Digital Initiatives

Digital India is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. Some of the digital extension initiatives in modernization of agriculture sector are summarized below:

- Farmer Portal:** The portal is envisaged to make available relevant information and services to the farming community and private sector through the use of information and communication technologies, to supplement the existing delivery channels provided for by the department. Farmers' Portal is an endeavour in this direction to create one-stop-shop for meeting all informational needs relating to Agriculture, Animal Husbandry and Fisheries sectors production, sale/storage of an Indian farmer. With this Indian Farmer will not be required to sift through maze of websites created for specific purposes.
- Kisan Suvidha:** Kisan Suvidha is an omnibus mobile app developed to help farmers get relevant information instantly. The app provide information on various details such as weather, market prices, seeds, fertilizers, pesticides, agriculture machinery, dealers, agro advisories, plant protection and IPM practices etc. Other unique features like extreme weather alerts, market prices of commodity in nearest area and the maximum price in state as well as in India have been added to empower farmers in the best possible manner.
- M Kisan:** M Kisan SMS Portal has been conceptualised to give a quantum leap in coverage of farmers and geographical area in a timely, specific, holistic and need based knowledge dissemination among the farmers by leveraging the power of mobile telephony in such a way that all sectors use this platform to not only reach out to the farmers but also to address their concerns and queries.
- Pusa Krishi:** With the vision to take technology to the farm fields, Pusa Krishi application was developed. The app helps the farmers to find easy solutions to problems in their farm fields and get information about weather and accordingly take measures to save crops. It also offers information related to new varieties of crops developed by Indian Council of Agriculture Research (ICAR), resource conserving cultivation practices as well as farm machinery and its implementation will help in increasing returns to farmers.
- Crop Insurance Mobile App:** Crop insurance mobile app can be used to calculate the insurance premium for notified crops based on area, coverage amount and loan amount in case of loanee farmer. It can also be used to get details of normal sum insured, extended sum insured, premium details and subsidy information of any notified crop in any notified area.
- ENAM:** National Agriculture Market (NAM) is a pan-India electronic trading portal which networks the existing APMC (Agriculture Produce Marketing Committee) mandis to create a unified national market for agricultural commodities. The NAM Portal provides a single window service for all APMC related information and services. This includes commodity arrivals and prices, buy and sell trade offers and provision to respond to trade offers, among other services. While material flow (agriculture produce) continues to happen through mandis, an online market reduces transaction costs and information asymmetry.
- Fertiliser Monitoring System (FMS):** The FMS software monitors movement of various fertilizers at various stages in their value chain. The website provides information on fertilizer companies dealing with these fertilizers, the rate of concession on each fertilizer, its MRPs and product wise, state wise details of dispatch and receipts of fertilizers at different destinations across the country.

- **Agrimarket App:** The mobile application has been developed with an aim to keep farmers abreast with the crop prices and discourage them to carry-out distress sale. Farmers can get information related to prices of crops in markets within 50km of their own device location using the AgriMarket Mobile App. This app automatically captures the location of the farmers using mobile GPS and fetches the market prices of crops which fall within the range of 50km. The prices of agri commodities are sourced from the agri market portal. Currently, the apps is available in English and Hindi languages.

Review of Literature

Quy, V. K., Hau, N. V., Anh, D. V., Quy, N. M., Ban, N. T., Lanza, S., ... & Muzirafuti, A. (2022). IoT-Enabled Smart Agriculture: Architecture, Applications, and Challenges. I hope that the findings of this study will constitute important guidelines in research and promotion of IoT solutions aiming to improve the productivity and quality of the agriculture sector as well as facilitating the transition towards a future sustainable environment with an agro ecological approach.

Gangwar, D.S., Tyagi, S. & Soni, S.K. (2022). A techno-economic analysis of digital agriculture services: an ecological approach toward green growth. Digital innovation increased the opportunities for the identification of farming needs. The conducted techno-economic analysis of smart farm interventions assisted in the identification of value creation attributes of digital agriculture services. Different attributes that farmers value can help in the domestication of digital agriculture technologies. Digital agriculture innovations must focus on capacity building and social value creation as the ongoing agrarian crisis in India has many social aspects.

Sridhar, A., Balakrishnan, A., Jacob, M.M. et al.(2022). Global impact of COVID-19 on agriculture: role of sustainable agriculture and digital farming. This work would be a perfect platform to understand the growing impact of the pandemic as well as supporting cost-effective solutions for a green ecosystem.

Araújo, S. O., Peres, R. S., Barata, J., Lidon, F., & Ramalho, J. C. (2021). Characterising the agriculture 4.0 landscape—Emerging trends, challenges and opportunities. This work will positively impact the research around Agriculture 4.0 systems, providing a clear characterisation of the concept along with guidelines to assist the actors in a successful transition towards the digitalisation of the sector.

Naika, M. B., Kudari, M., Devi, M. S., Sadhu, D. S., & Sunagar, S. (2021). Digital extension service: Quick way to deliver agricultural information to the farmers. This chapter covers various digital tools and their efficiency with a supporting case study on utilization and impact of digital extension services (DES) on farmer's knowledge in terms of agricultural practices in selected villages of Belagavi district, Karnataka, India. In conclusion, digital extension services play a vital role in the dissemination of updated information for improving agricultural supply chain management.

Jakku, E., Fielke, S., Fleming, A., & Stitzlein, C. (2021). Reflecting on opportunities and challenges regarding implementation of responsible digital agri-technology innovation. This article uses insights from rural sociology and innovation studies, which can complement RI dimensions—anticipation, inclusion, reflexivity and responsiveness—to reflect on how RI can be implemented in digital agriculture initiatives. We draw on insights from interviews with researchers involved in Digiscape to show how RI dimensions can be blended with applied sociological theories and co-innovation principles and identify recommendations to help foster responsible agricultural technology development.

Problem Statement

There is widespread agreement that Indian agriculture has to be digitalized, and efforts are being made to digitize the existing value chain. Agriculture in the modern world is already heavily reliant on digital technology. Through the power of contemporary technology, ICTs assist in empowering the rural population by granting better access to technology, natural resources, enhanced agricultural methods, efficient production tactics, market access, and much more.

Objectives of the Study

- To study the role of agriculture sector in inclusive development.
- To study the development in agriculture sector after digital extension.
- To find the opportunities & challenges of digital initiatives in modernization of agriculture sector in India.

Research Gap

After reviewing various kinds of literature from relevant subject areas it was found that agriculture sector plays a very important role in the economic development in this digital era but there is no such researches founds to analyse the impact of digital initiatives taken towards agriculture sector in India.

Research Methodology

Materials used in the analysis come from two sources- one from official government websites/reports and second as responses of farmers towards Digital technologies in agriculture sector of Madhya Pradesh. A questionnaire that has been written in both Hindi and English was used to collect the primary data. The questionnaire includes the land holding, age, farming experience, and opinion of the farmers regarding the various problems of digitalization of the agriculture sector of Madhya Pradesh on a Likert scale of 1 to 7. On the basis of responses collected from the 105 respondent farmers of Chhatarpur district of Madhya Pradesh, we highlight the main constraints of digitalization which farmers are facing in the agriculture sector in Madhya Pradesh. It also incorporates the researcher's personal observations and measurements of events. The scope of the research is limited to the agricultural sector of Madhya Pradesh only. The study's limitations are addressed, and potential areas for future research are recommended.

Data Analysis and Interpretation

By 2050, the globe will need to generate at least 70% more food. As a result of the widespread use and depletion of our natural resources and the dwindling size of our agricultural lands, the need to increase farm productivity raises severe ethical questions. Despite the difficulties associated with the environment, agriculture must develop to keep up with the need for food since the world's population is expanding at a very rapid rate. Future generations will utilize smart agriculture and other technology in the years to come. Common terms for the applications of IoT solutions in agriculture include smart agriculture and smart farming. Through the Internet of Things (IoT), smart farming and precision farming are enabling the agriculture sector to minimize costs, eliminate waste, improve operational efficiency, and increase crop quality. In modern technology era, drones for agriculture are one of the popular applications. Crop health assessments, crop spraying, planting, and many more operations involve the usage of aerial and ground drones. Drone technology has renewed and changed the whole agriculture sector with the appropriate planning and strategy based on real-time data. The importance of digitalization in Indian agriculture is widely recognized, and efforts are underway to digitalize the current value chain. To encourage farmers to utilize technology, the Ministry of Agriculture and Farmers Welfare has developed many important digital applications. Digital agriculture refers to the use of data and technology to inform agricultural decisions and processes, and it has the potential to make the entire agricultural sector more effective, transparent, profitable, and ethical. Using modern technologies, rural India can undergo transformation. Farmers can gain new perspectives and receive improved guidance from sensors in the field, automated farm machinery, and data from satellites and drones. A survey has been conducted within Chhatarpur District in Madhya Pradesh with the help of questionnaire method. With the use of tables and figures, the findings and analyses are described below.

Table 1: Number of Respondent Farmers on the basis of Operational Land Holdings

Types of Farmers on the Basis of Operational Holding	Numbers of Respondents Farmers
Marginal farmers	48
Small Farmers	32
Semi-medium	15
Medium	7
Large	3
Grand Total	105

Source: Authors' Computation using excel

The above table mentioned total numbers and types of respondent farmers on the basis of operational land holding.

Prospects and Challenges of Digitalization in Agriculture Sector of Madhya Pradesh

Transformation of Agriculture sector and rural area can be done with the help of digital technologies. There are various constraints of digitalization of agriculture sector in Bihar. Some major constraints are covered in this study. The views of the farmers were taken through the rating scale on various problems in order to determine the major Constraints of digitalization in agriculture sector.

Table 2: Show the Degree of Agreeability of Different Category of Farmers Regarding the Prospects and Challenges of Digitalization in Agriculture Sector of Madhya Pradesh

Prospects and challenges of digitalization in agriculture sector of Madhya Pradesh.	SDA	DA	SWDA	N	SWA	A	SA	GT
Hesitation in adopting digital technologies due to small and fragmented land	3	21	10	16	07	22	26	105
Lack of training and motivation to capitalization in agriculture	12	12	17	19	11	15	19	105
There are in-sufficient power supply	06	16	12	15	09	25	22	105
State inefficiencies in distributing agriculture subsidies	08	15	11	20	10	20	21	105
Internet connection is poor or slow in your area.	09	12	11	19	12	20	22	105
Lack of skill in handling ICT tools	08	12	11	24	11	40	19	105
Lack of awareness of benefit of ICT and digitals tools	08	13	08	18	15	23	20	105
Language problems	12	12	17	19	11	15	19	105
Poor understanding of technologies (lack of knowledge)	05	16	11	16	11	28	18	105
High cost of digital tools (set up and running cost)	07	21	11	17	11	23	15	105

Source: Authors' Computation using excel

Findings

The above table reveals the opinion of different types of farmers regarding the agreeability of various prospects and challenges of using Digital technologies in farm activities on a scale of 1 to 7. In case of hesitation in adopting digital technologies due to small and fragmented land, 143 (68%) of farmers have rated 4 or more on the scale of 7 which reflects their acceptance towards that. As per results of Agriculture census 2015-16, In case of Lack of training and motivation to capitalization in agriculture 127 (60%) of farmers have rated 5 or more on the scale which indicate that there are lack of motivation factors for capitalization in agriculture. Similarly, in case of remaining hurdles of digitalization, most of the farmers have rated 5 or more on the rating scale of 1 to 7 basic literacy and numeracy skills, as well as specialized technical knowledge and abilities, are necessary for using digital technology. The major obstacle for farmers in rural areas is a lack of understanding of technology. People lacking these skills may be excluded in societies that are becoming more digitally oriented. In emerging nations, rural areas may have less access to information and education than urban ones (FAO, 2014). Furthermore, limited access to mechanization equipment and usual natural disasters like as floods droughts, excessive and untimely monsoon rains have restricted the implementation of digital agriculture solutions.

Prospects and Challenges in Digital Extension of Agriculture Sector

Prospects

- **Better Prices:** The greatest impact of Digital India is on realising better market pricing and reducing transaction costs. It has potential to connect each farmer to anywhere in the country. This would help farmers to cut the cost born to intermediaries and would help to realise better profits.
- **Virtual Ecosystem:** Digital India is important to create a virtual ecosystem to support the delivery of timely, localised information and services to farmers, making agriculture profitable and sustainable. It can help in providing data regarding soil variability, moisture and nutrient levels, rainfall variability, timing of planting and harvesting and market price volatility to farmers.
- **Tailored Recommendations:** Digital technology can be the key to increase agriculture productivity by delivering tailored recommendations to farmers based on crop sown, real time observed weather and projected market prices.
- **Direct Cash Transfer:** Digital India will help the government to reach the needy and poor farmers for the Direct cash transfers system replacing agricultural subsidies. This would help in

increased agricultural productivity as well as reduce farmer's debt burden. When combined with data infrastructure, subsidies can be validated and targeted to increase farm profitability that in turn give farmers confidence to invest in their farms to further increase productivity.

- **Social Media Usage:** Digital India will also leverage social media platforms to build human capacity. One of the best examples of this is Digital Green. It uses participatory videos that have farmers explain best management practices to other farmers. This approach is more cost effective than traditional extension services as farmers trust other farmers. Also, they better relate to someone like them who are building a livelihood under similar circumstances.
- **Savings:** Mobile money is the intervention that has unlocked tremendous opportunities for rural consumers in Africa. Similarly, initiatives like PM Jan Dhan Yojana, Bhim etc. can play an important role. Digital platform farmers to bypass poor banking infrastructure and support savings and access credit digitally.

Challenges

- **High Capital Costs:** It discourages the farmers to adopt digital methods of farming.
- **Small Land Holdings:** Indian farms are very small in size and 1-2 acres farm plots are the most common. Also, agricultural land leasing under various arrangements is widely prevalent in India.
- **Renting and Sharing Practices:** Due to both limited financial resources and small farm plots, renting and sharing platforms rather than outright purchase for equipment and machinery like tractors, harvesters etc.
- **Illiteracy in Rural Area:** The lack of basic computer literacy hinders the fast development of e-Agriculture.

Suggestions

- After studying various aspects, reviewing various literature, and analysing the computed data, the recommendations can be advised as follows:
- The awareness about digital initiatives should be increased by organizing workshops, seminars, webinars, and conferences in institutions.
- Among farmers the practical knowledge must be enhanced to increase usage of the technology.
- The appropriate framework and norms should be enclosed by the Government, or any authorized authority regarding the using procedure through digital platform.
- Digital technology is considered a challenge to farmers as it will bring a drastic change in agriculture. So, farmer need to break down barriers that restrict them to adopt digital technology and convert them into opportunities.

Conclusion and Policy Implications

Overall, the scenario for Digital Agriculture is promising in India. The key factors that will determine the success of Digital Agriculture in India are affordability of technology, ease of access and operations, easy maintenance of systems, timely grievance redressal and appropriate policy support. There is also need for robust research and development that also factors in last mile delivery and ground challenges so that Digital Agriculture can empower Indian farmers in a meaningful way.

Limitations of the Study and Future Research Directions

Technological interventions based on remote sensing, soil sensors, unmanned aerial surveying and market insights, etc., permit farmers to gather, visualise and assess crop and soil health conditions at different stages of production, in a convenient and cost-effective approach. They can act as an initial indicator to identify potential challenges and provide options to deal with them in a timely manner.

Artificial Intelligence/Machine Learning (AI/ML) algorithms can generate real-time actionable insights to help improve crop yield, control pests, assist in soil screening, provide actionable data for farmers and reduce their workload.

Blockchain technology offers tamper-proof and precise data about farms, inventories, quick and secure transactions and food tracking. Thus, farmers don't have to be dependent on paperwork or files to record and store important data.

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AN ANALYTICAL STUDY FOR CUSTOMER RETENTION OF E-COMMERCE MARKET IN INDIA

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Dr. Lalit Kumar Verma**

ABSTRACT

With the bottleneck competition between the E-commerce companies, for their business sustainability, they are more willing to attract new customers for generating more profit and for developing growth in businesses. The ultimate objective of a business concern is to earn maximum profit by increasing customers, but in this competitive environment, customer retention is very important versus generating new clients. It is very important to retain their existing customers for company retention in online markets [Dr. M. Rajeshwari, 2016]. The company vendors should start thinking about the trusted relationship with their frequent customers or old customers, which are associated with the group who provides continuous online sales through websites or apps for the last few years. Companies are lacking to provide discounts, benefits, or other membership schemes to their loyal customers. If they want to retain them then should prioritize the cluster of loyal customers to increase their sustainability by creating trustworthy relationships [Dr. Das, L., 2012].

KEYWORDS: E-Commerce, Customer Retention, Competitive Environment, Online Sales.

Introduction

Online shopping technologies via the internet show tremendous growth in E-commerce markets. It provides several facilities to its consumers. The main motive of these companies is to give services to their user any time anywhere without any hassle puzzle. From the last two decay, E-commerce portals become very strong and well-structured businesses. Online markets erased the limitation of geographical distance and opened vast varieties of shopping options for every user. By only pressing a simple click on the keypad, anyone can order the desired product. This is a superior convenient shop product, as well as they can efficiently resell products with online marketing. There is an easy process of uploading items on the website for selling too. The main reason behind these facilities is the advanced technology of web services and the concept implementation of E-commerce [Yukui Sheng, 2009].

In the last two decays, this technology has changed continuously, for its betterment and for generating more convenient services for customers. Now, E-commerce businesses are standing at the peak of their grand success, but on the other hand, it is also true that they have been heavily damaging the existence of traditional business models. Almost all types of businesses are now available on online portals, generally, we can understand that creating online existence is an expansion of businesses. Along with that, it is also true that doing shopping via traditional method sometimes becomes a burden for clients, especially for current generations. The reason behind this is if they can fulfill their all requirements by doing some simple clicks then why would unnecessarily they go outside and shop [B Karunakar, 2016].

This paper is layered into six segments firstly problem discussion, the next theories review, the conceptual framework then followed by research methodology, and empirical findings with data analysis, in the last segment of the paper discussion, recommendations, and conclusions are written for future aspects.

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Review and Background of Paper

In some previous years, we can easily evaluate the highly increasing graph of E-commerce and its other factors like E-businesses, Tour and Travel, E-education, etc. showing an exceptionally rapid growth in the online market.

“The concept of Electronic commerce was originally derived by Mr. Michael Aldrich”. He was a great businessperson and modernizer in 1979, and the concept of E-commerce is first invented by him. In the below diagram, we can see the step-by-step development process of business strategies.

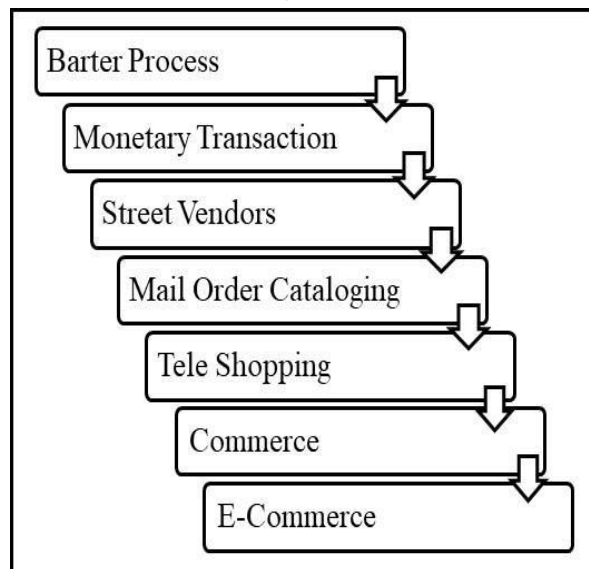


Fig. 1: Development Cycle of E-Commerce

A phrase that says a coin always has two faces, accordingly when a business stands at the peak of its success then on the other side lots of challenges also standing for maintaining the sustainability of the business. According to many research and these for getting stability in the market, one major factor is customer retention of existing customers. In this scenario, the domain of Customer Relationship Management is also very important. If we give some attention to CRM methods with some required points like satisfaction, switching, and loyalty of customers then we can get fruitful results to resolve our problem of customer retention. The strategy behind customer retention is the most profitable and effective scheme, it is necessary for today's competitive online business marketing. This competition is between different online companies and it intensifies as every minute passes [Chaithralaxmi.T, 2018]. It is a difficult task for vendors to continuously upgrade their systems and apply innovative effect-driven schemes for developing stability in this world of online business.

Researchers Lina Zhou and Liwei Dai state that it is an essential time for online merchants to figure out customer behavior, the shopping pattern of clients, and their likes and dislikes by using their customer history for generating trustworthiness. The conclusion of their study makes available the fact that it is a crucial aspect to build healthy management for trusted customer relationships [Lina Zhou, Liwei Dai, 2007].

In this paper authors [Wang Lin & Luo Dongying, 2017] discussed that online purchasing is greatly impacted by consumer behavior, the intensity of product requirements, their income, product information, and their feedback. Luo Dongying describes their research work that there are four key points related to online shopping and customer retention, which are the quality of available items, client attitude, the vendor and it's the practical methodology. These factors directly work to increase customer rely on. Here, researchers developed a conceptual model, which suggested a correlation between the usability of the available items ranges and the quality of products.

[C. R. Chatwin and K. M. Sam, 2016] studied the content and information of product pages, which are generally available on E-commerce websites. The product page is a part where vendors put details, features, and costs of their products to showcase them. They describe the importance of the

product page and its content interactions. If a client found correct and complete information about a product, then more possibility is generated that customers will order via the website more frequently. After delivery, if the client discovers their ordered product has similar to shown and promised on the product page then they will feel satisfied. As well as they start trusting online shopping and we can see the rate of retention will also increase. This is the key mantra of success for E-businesses.

In this paper a hypothetical model was proposed by Feng Yu-Qiang, and Zhang Yao. This model is based on social connection and Fashion trends. In online purchasing via customers, the selection process of products is greatly influenced by their community. Here, researchers divided two types of societies areas virtual and traditional ones. For recognizing the basic needs of online purchasing for customers, researchers evaluated the advantages and disadvantages of both types of communities for a better understanding of customer perception. They suggested that mainly two factors give a major impact on product purchasing, first one is how eagerly a customer wants to purchase a product or to what extent they required a product to fulfill their necessities [Zhang Yao, & Feng Yu-Qiang, 2011].

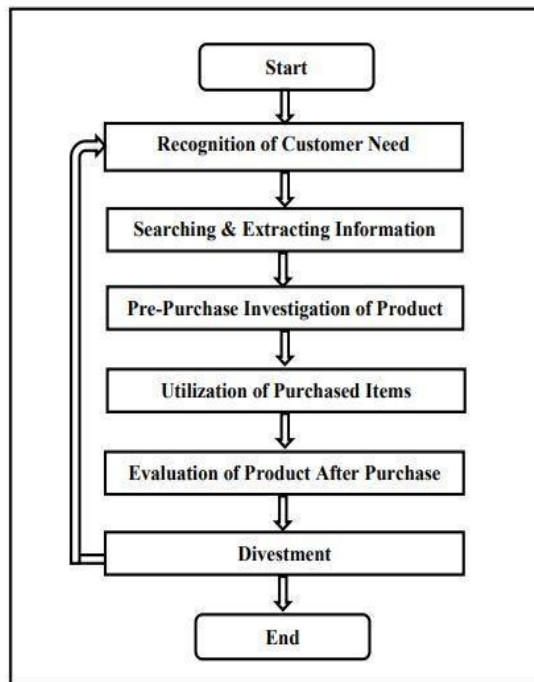


Fig. 2: Chart for Product Selection Process Model

secondly, their previous experiences and feedbacks help them to decide whether to shop or not to shop again with the previous E-shop [9]. With these conditions, a vendor can only retain their customers when they have satisfied and have felt better experiences in their previous purchasing. If a customer becomes satisfied, then automatically the rate of customer retention will increase [C. Luk, K L. Choy, 2018].

Conceptual Framework

The conceptual framework defines the procedure to combine the key-point together and indicate towards the problem statement. After a substantial growth of E-commerce businesses, now they are striving hard to sustain themselves in today's competitive market. According to the powerful theories of business management, customer convenience and satisfaction create growth, profitability,

and business stability. In the conceptual framework of this paper we are trying to focus on the concept of customer retention, our client's convenience, finding ways to convert customers into loyal customers, and also evaluating the main reasons behind customers switching. Along with these, we are also trying to identify that if vendors provide some attractive benefits or privileges to customers then they will start shopping more frequently from e-shops and the retention rate will also increase.

Methodology

The present research study is exploratory cum descriptive where an attempt has been made to study customer retention in the E-commerce industry in India. How this pandemic situation creates a scenario in front of e-commerce players to acquire the maximum market share along with maintaining the existing customer group. This pandemic situation creates an opportunity for e-commerce players in a huge market like India. Therefore, the main purpose of this study is to find the strategy adopted by the e-commerce players of India to retain existing customers. Sample design- the units of analysis in this research are the Indians, who are using an online platform for buying goods and services through online platform.

For this study 1027 Self-administered questionnaires were issued on google form via e-mail and by physical one-to-one interaction with the respondents in networking mode throughout India.

The survey instrument constructs are based on a review of the literature. The straightforward and clear layout in easy language was designed. A pilot study was first conducted on a sample of 50 respondents. The questions of the questionnaire have been created with the structural level grouping. The questionnaires of this study were mainly divided into three parts.

- The first segment related to customer information: The classification is based on basis of different areas of users' personal details.
- The second segment describes consumer behavior and shopping frequency of products regarding online purchasing.
- The last segment depicts the consumer opinions, beliefs, and point-of-view regarding the concept of customer retention.

Empirical Findings and Data Analysis

By using the SPSS software (Statistical Package for the Social Sciences), we did Chi-square testing on two categorical variables. We tested four questions as a hypothesis these are as follows:

- H₁:** E-Commerce websites enable fast & anytime shopping at the user's convenience.
H₂: Do you use Discounts and offers from a website where earlier purchased a product from?
H₃: Do you use cashback points from a website where you earlier purchased a product from?
H₄: Are the benefits/ privileges associated with your membership schemes making your shop more frequent?

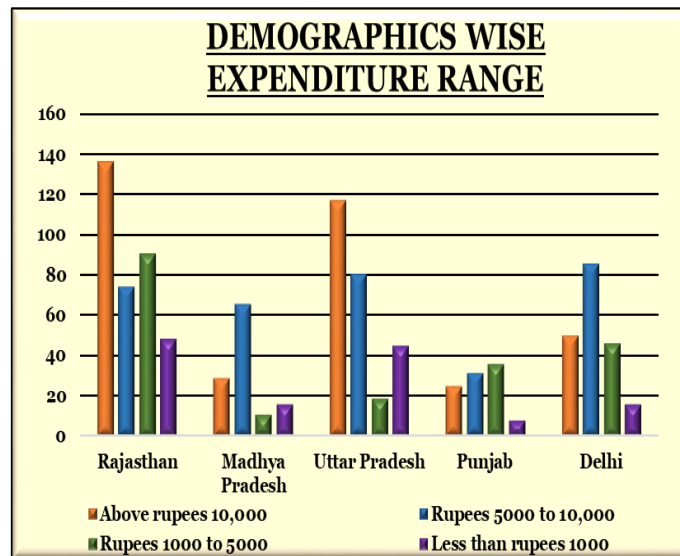


Figure 3: Demographics Wise Expenditure Range of Respondents

The tables in the appendix represent the calculated hypothesis responses with concern to the results, which are classified as Neutral, Agree, and Disagree.

H₁: E-Commerce websites enable fast & anytime shopping at the user’s convenience.

The purpose of this analysis is to investigate whether the hypothesis "E-Commerce websites enable fast & anytime shopping at user’s convenience" holds true for the given sample. The data was collected through a survey that includes 1027 participants from different age brackets, education levels, and occupations. The analysis will be conducted by looking at the responses to different questions in the survey and comparing the agreement, neutral, and disagreement percentages for each category.

- First is **Residential Location**: The survey data shows that 90.17% of urban respondents agree that e-commerce websites enable fast and anytime shopping at the user's convenience, whereas only 7.225% were neutral, and 2.60% disagreed with the statement. In contrast, 87.76% of rural respondents agreed with the statement, 11.94% were neutral, and only 0.30% disagreed. This suggests that e-commerce websites are perceived to be equally beneficial by both urban and rural residents.
- **Gender**: The data shows that a higher percentage of males (90.46%) agree with the statement compared to females (88.36%). Females have a slightly higher percentage of neutral responses (9.924%) than males (7.555%). However, the difference is not significant, and overall, the data support the hypothesis that e-commerce websites enable fast and anytime shopping at the user's convenience regardless of gender.

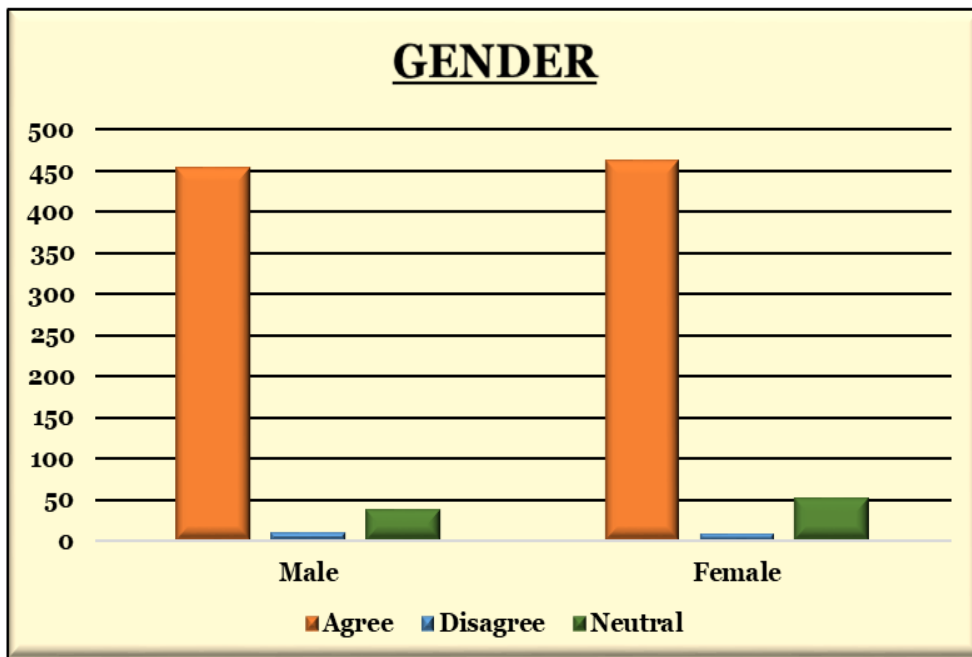


Figure 4: Graph for Gender Description [H₁]

- **Age Bracket**: Looking at the age bracket category, the survey data shows that the percentage of agreement decreases as the age of respondents increases. For respondents aged 21-25, 98.28% agreed with the statement, while only 76.86% of those aged 40 and above agreed.
- **Education**: The data shows that respondents with a higher education level have a higher percentage of agreement with the statement. The highest percentage of agreement was recorded for respondents with a professional degree (88.36%), followed by post-graduates (87.74%) and graduates (91.75%). Respondents with a lower education level, such as secondary and primary, also showed a high percentage of agreement, with 86.52% and 100%, respectively. This suggests that e-commerce websites are perceived to be equally beneficial by people with different education levels.

- **Occupation:** The data shows that respondents who are students have the highest percentage of agreement (92.76%), followed by homemakers (91.22%) and employed individuals (88.31%). Self-employed and business owners also showed a high percentage of agreement, with 89.95% and 86.75%, respectively. Pensioners had the lowest percentage of agreement (87.39%), which is still relatively high. Overall, the data suggest that e-commerce websites are perceived to be beneficial by people with different occupations.

Conclusion [H₁]

The analysis supports the hypothesis that e-commerce websites enable fast and anytime shopping at the user's convenience. The data shows that the majority of respondents agreed with the statement, regardless of their residential location, gender, age bracket, education level, or occupation. The overall trend suggests that e-commerce websites are perceived to be convenient and useful for shopping by the majority of people.

H₂: Do you use discounts and offers from a website where you earlier purchased a product from?

The given data consists of responses to the survey question "Do you use discounts and offers from a website that you earlier purchased a product from?" from 1027 participants.

- **Residential Location:** Out of 1027 participants, 692 are from urban areas, and 335 are from rural areas. 85.1% of urban residents agree to use discounts and offers from a website they earlier purchased a product from, while only 88.7% of rural residents agree. The difference between the two groups is not significant, but a slightly higher percentage of urban residents agree to use discounts and offers.
- **Gender:** Out of 1027 participants, 503 are male and 524 are female. 87.87% of male respondents agree to use discounts and offers from a website they earlier purchased a product from, while 84.73% of female respondents agree. The difference between the two groups is not significant, but a slightly higher percentage of male respondents agree to use discounts and offers.

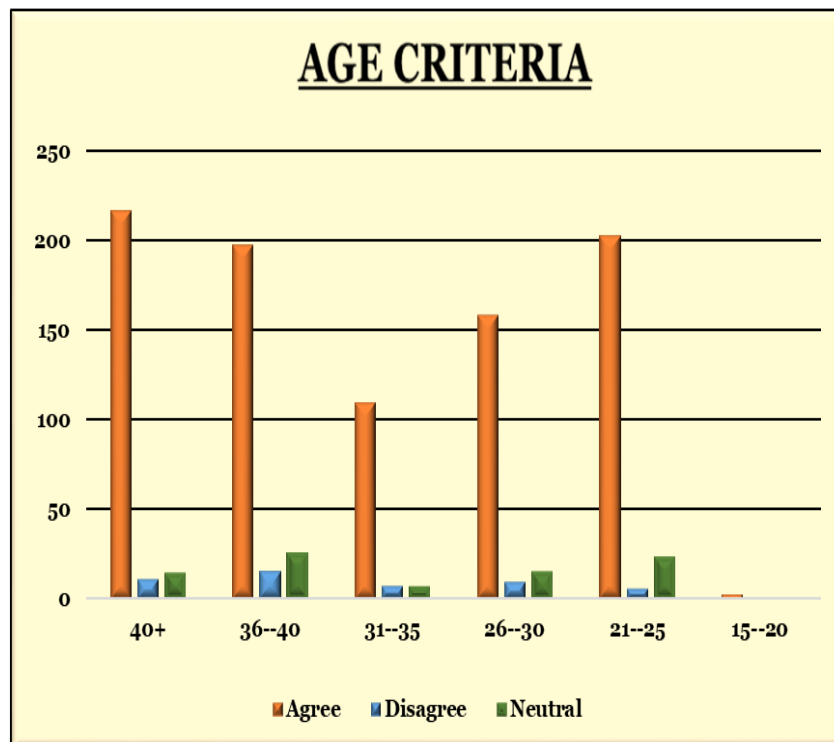


Figure 5: Graph for Age Description [H₂]

- **Age Bracket:** The age bracket is divided into six categories: 40+, 36-40, 31-35, 26-30, 21-25, and 15-20. The highest number of respondents belong to the 21-25 age group with 232 participants, and the lowest number of respondents belong to the 15-20 age group with only four participants. 89.26% of participants aged 40+ agree to use discounts and offers, while only 75% of participants aged 15-20 agree.
- **Education:** The education category is divided into seven categories: Professional, Post Graduate, Graduate, Secondary, Diploma, Ph.D., and Primary School. The highest number of participants belong to the Graduate category with 291 participants, and the lowest number of participants belong to the Primary School category with only 24 participants. The majority of respondents in all education categories agree to use discounts and offers from a website they earlier purchased a product from. However, the percentage of respondents who agree to use discounts and offers is slightly lower for those with a Ph.D. (84.42%) and those with a Diploma (86.27%).
- **Occupation:** The occupation category is divided into six categories: Employed, Students, Self-Employed, Pensioner, Business, and Homemaker. The highest number of participants belong to the Employed category with 248 participants, and the lowest number of participants belong to the Homemaker category with 148 participants. The majority of respondents in all occupation categories agree to use discounts and offers from a website they earlier purchased a product from. However, the percentage of respondents who agree to use discounts and offers is slightly lower for Self-Employed participants (83.25%) and Pensioners (84.03%).

Conclusion [H₂]

The data shows that the majority of participants agree to use discounts and offers from a website they earlier purchased a product from. There are slight variations in the percentage of respondents who agree based on their residential location, gender, age bracket, education, and occupation. However, these variations are not significant. Overall, the hypothesis "H₂: Do you use discounts and offers from a website that you earlier purchased a product from?" can support based on the data.

H₃: Do you use cashback points from a website where you earlier purchased a product from?

Based on the provided data, we can analyze the hypothesis "H₃: Do you use cashback points from a website that you earlier purchased a product from?" across various demographic groups such as residential location, gender, age bracket, education, and occupation.

- **Residential Location:** Out of the 1027 total responses, 875 respondents (85.2%) agreed or strongly agreed that they use cashback points from a website that they earlier purchased a product from, while only 91 (8.8%) disagreed or strongly disagreed. Looking at the responses based on residential location, we can see that the agreement was higher among urban residents (84.2%) compared to rural residents (84.2%). However, the difference is negligible.
- **Gender:** Out of the total respondents, 865 (84.2%) agreed or strongly agreed that they use cashback points from a website from that they earlier purchased a product from. There was no significant difference in responses between male and female respondents, with both genders showing high agreement levels at 82.7% and 85.7%, respectively.
- **Age Bracket:** The highest agreement levels were observed in respondents aged 40+ (85.95%), followed by those aged 26-30 (83.7%) and 36-40 (83.68%). Respondents aged 15-20 had the lowest agreement levels, but this group only had 4 respondents.
- **Education:** Respondents with a Ph.D. (88.31%) showed the highest agreement levels, followed by primary education (100%) and professional education (85.34%).
- **Occupation:** Respondents who were employed (90.32%) showed the highest agreement levels, followed by students (92.11%) and self-employed (87.08%). Respondents who identified as business owners had the lowest agreement levels (68.87%), followed by pensioners (77.31%) and homemakers (83.11%).

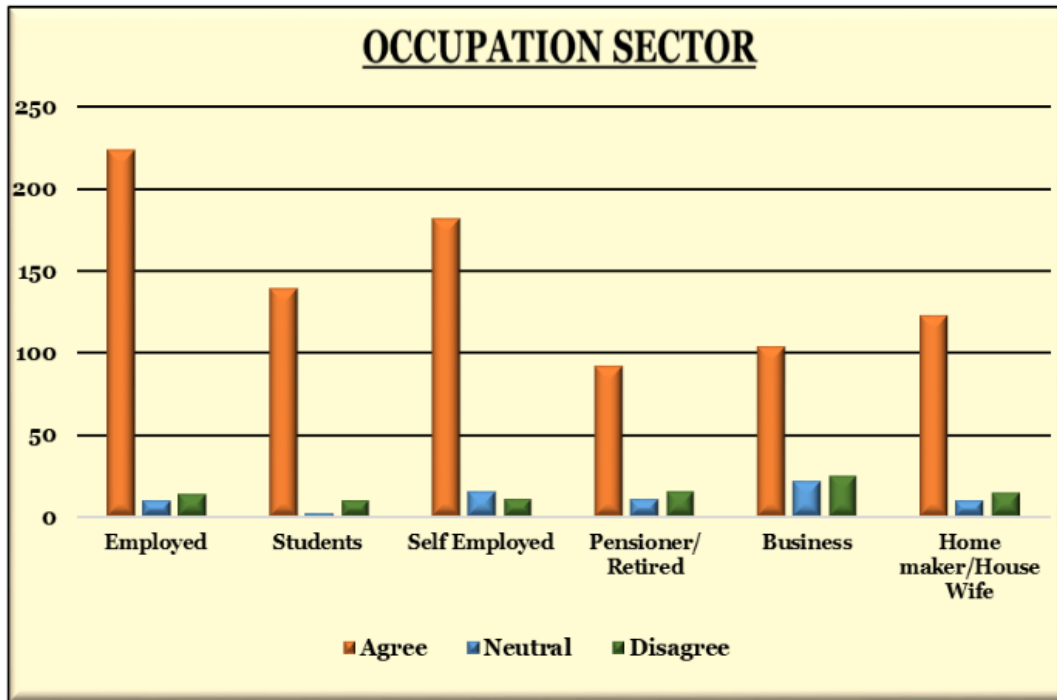


Figure6: Graph for Age Description [H₃]

Conclusion [H₃]

Overall, the analysis of the data suggests that a significant percentage of respondents use cashback points from websites they previously purchased from, across various demographic groups. However, there are some variations based on demographic characteristics. For instance, agreement levels were higher among older age groups, those with higher education levels, and those who were employed or students. Further research would be needed to understand the reasons behind these variations.

H₄: Are the benefits/ privileges associated with your membership schemes making your shop more frequent?

The purpose of this report is to analyze the relationship between membership benefits and the frequency of visits to a particular shop. Hypothesis H₄ states that the benefits and privileges associated with membership schemes make the shop more frequent. The data collected includes responses from 1027 participants on various factors.

- Residential Location:** Out of the total 1027 participants, 692 were from an urban area, and 335 were from a rural area. Among the urban population, 82.37% agreed that membership benefits make them visit the shop more frequently, while 87.76% of the rural population agreed with the statement. The percentage of disagreement was lower in the rural population (4.48%) compared to the urban population (7.23%). Therefore, hypothesis H₄ is supported for both urban and rural populations.
- Gender:** Among the 1027 participants, 503 were male and 524 were female. The percentage of agreement was higher among male participants (87.28%) compared to female participants (81.11%). The percentage of disagreement was also lower among male participants (4.57%) compared to female participants (8.02%).
- Age Bracket:** The participants were categorized into six age brackets ranging from 15-20 to 40+. Among these age brackets, the highest percentage of agreement was observed among participants aged 40+ (81.82%). The percentage of agreement was also high among participants aged 36-40 (87.45%) and 26-30 (83.70%). The percentage of disagreement was the lowest among participants aged 15-20 (0.00%). Hypothesis H₄ is supported for age brackets 36-40, 26-30, and 40+.

- Education:** The participants were categorized into seven education categories ranging from primary to Ph.D. The highest percentage of agreement was observed among participants with a Graduate. However, this category had the lowest number of participants (102). Among the other education categories, the percentage of agreement was highest among participants with Post Graduate education (87.26%) followed by Diploma education (87.63%). The percentage of disagreement was the highest among participants with Secondary education (11.24%). Therefore, hypothesis H4 is supported for Diploma, Post Graduate, and Graduate education categories.

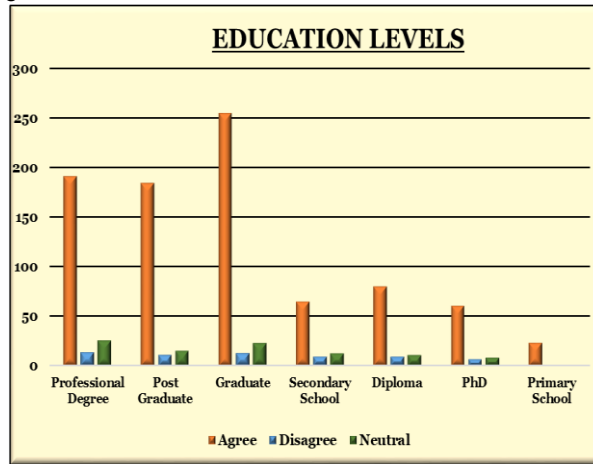


Fig. 7: Graph for Education Description [H4]

- Occupation:** The participants were categorized into six occupation categories ranging from employed to the homemaker. Among these categories, the percentage of agreement was the highest among students (87.5%) followed by pensioners (84.9%). The percentage of disagreement was the lowest among self-employed participants (4.31%). Therefore, hypothesis H4 is supported for students, pensioners, and self-employed participants.

Conclusion [H4]

The analysis of the data suggests that the benefits and privileges associated with membership schemes make the shop more frequent for certain categories of participants. Hypothesis H4 is supported for rural and urban populations, age brackets, and education categories.

Consolidated Discussion & Conclusion

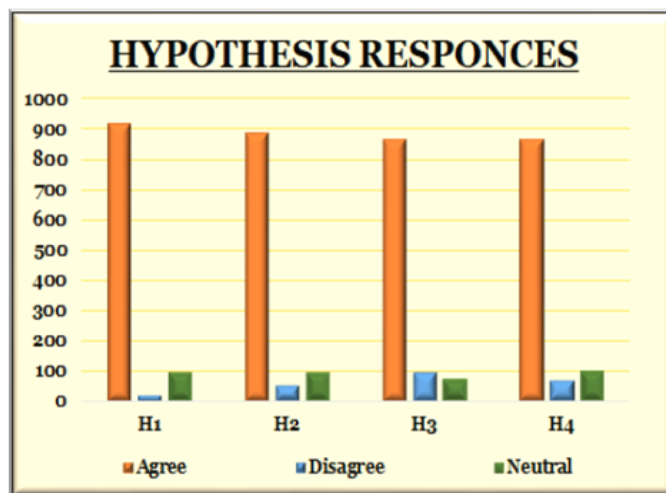


Figure 8: Consolidated Graph for Hypothesis' Responses

We concluded that consumers (survey participants: 89.39%) have positive experiences using services and making purchases through the online market after devoting all of our calculations and analytical reports to the first hypothesis [H1]. People prefer to shop online through well-known mobile apps or E-Commerce websites since it's more convenient and there are no day or time restrictions. Also, compared to traditional enterprises and/or local markets, the online market's shipping services are quicker. The transparent laws and policies that regulate the e-commerce industry make it easier for customers to have their complaints resolved, especially those involving product returns or replacements. We can conclude that the [H1] hypothesis is appropriate.

In accordance with the research analysis report for our next hypothesis, the majority of the respondents to our survey (86.27%) desire to shop from a website where they previously bought a product or products in order to receive discounts on their subsequent purchases. Not only are they in favor of discount policies, but they also support online stores that offer discounts and other customer retention incentives over those that don't. Hence, we may also affirm that the [H2] hypothesis is true.

Regarding our third [H3] and fourth [H4] hypotheses, we are aware that the discounts offered by businesses and vendors greatly improve the consumer experience. Vendors use a variety of client retention tactics and strategies, such as offering discounts, cash backs, and other incentives, in an effort to both attract new customers and keep their current ones. For a higher rate of client retention, they frequently develop new lucrative strategies, such as membership programs and cash-back points depending on a customer's prior bill. This enables us to affirm that the majority of users (84.23%) hold this belief.

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Appendices

Table 1: Observation Table of Hypothesis-1 [H₁]

E-Commerce websites enables fast & anytime shopping at users convince.							
Particulars Totals (1027)	Agree		Neutral		Disagree		
	Responses	%	Responses	%	Responses	%	
1. Residential Location							
a) Urban (692)	624	90.17	50	7.225	18	2.601156	
b) Rural (335)	294	87.76	40	11.94	1	0.298507	
2. Gender							
a) Male (503)	455	90.46	38	7.555	10	2.0	
b) Female (524)	463	88.36	52	9.924	9	1.7	
3. Age Bracket							
a) 40+ (242)	186	76.86	39	16.12	17	7.02	
b) 36--40 (239)	218	91.21	21	8.79	0	0	
c) 31--35 (126)	124	98.41	2	1.59	0	0	
d) 26--30 (184)	160	86.96	24	13.04	0	0	
e) 21--25 (232)	228	98.28	3	1.29	1	0.43	
f) 15--20 (004)	2	50	1	25	1	25	
4. Education							
a) Professional Degree (232)	205	88.36	24	10.34	3	1.29	
b) Post Graduate (212)	186	87.74	22	10.38	4	1.89	
c) Graduate (291)	267	91.75	22	7.56	2	0.69	
d) Secondary School (089)	77	86.52	8	8.989	4	4.49	
e) Diploma (102)	97	95.1	5	4.902	0	0.00	
f) PhD (077)	62	80.52	9	11.69	6	7.79	
g) Primary School (024)	24	100	0	0	0	0.00	
5. Occupation							
a) Employed (248)	219	88.31	24	9.677	5	2.0	
b) Students (152)	141	92.76	8	5.263	3	2.0	
c) Self Employed (209)	188	89.95	21	10.05	0	0.0	
d) Pensioner/ Retired (119)	104	87.39	12	10.08	3	2.5	
e) Business (151)	131	86.75	17	11.26	3	2.0	
f) Home maker (148)	135	91.22	8	5.405	5	3.4	

Table 2: Observation Table of Hypothesis-2 [H₂]

Do you use Discounts and offers from a website that you earlier purchased a product from?							
Particulars Totals (1027)	Agree		Neutral		Disagree		
	Responses	%	Responses	%	Responses	%	
1. Residential Location							
a) Urban (692)	589	85.1	62	9.0	41	5.9	
b) Rural (335)	297	88.7	28	8.4	10	3.0	
2. Gender							
a) Male (503)	442	87.87	43	8.55	18	3.58	
b) Female (524)	444	84.73	47	8.97	33	6.30	
3. Age Bracket							
a) 40+ (242)	216	89.26	15	6.20	11	4.55	
b) 36--40 (239)	197	82.43	26	10.88	16	6.69	
c) 31--35 (126)	110	87.30	8	6.35	8	6.35	
d) 26--30 (184)	158	85.87	16	8.70	10	5.43	
e) 21--25 (232)	202	87.07	24	10.34	6	2.59	
f) 15--20 (004)	3	75.00	1	25.00	0	0.00	
4. Education							
a) Professional Degree (232)	209	90.09	13	5.60	10	4.31	
b) Post Graduate (212)	176	83.02	21	9.91	15	7.08	
c) Graduate (291)	243	83.51	32	11.00	16	5.50	
d) Secondary School (089)	81	91.01	8	8.99	0	0.00	
e) Diploma (102)	88	86.27	9	8.82	5	4.90	
f) PhD (077)	65	84.42	7	9.09	5	6.49	
g) Primary School (024)	24	100.00	0	0.00	0	0.00	
5. Occupation							
a) Employed (248)	218	87.90	21	8.47	9	3.63	
b) Students (152)	137	90.13	9	5.92	6	3.95	
c) Self Employed (209)	174	83.25	27	12.92	8	3.83	
d) Pensioner/ Retired (119)	100	84.03	9	7.56	10	8.40	
e) Business (151)	135	89.40	10	6.62	6	3.97	
f) Home maker (148)	122	82.43	14	9.46	12	8.11	

Table 3: Observation Table of Hypothesis-3 [H₃]

Do you use cash back points from a website that you earlier purchased a product from?							
Particulars Totals (1027)	Agree		Neutral		Disagree		
	Responses	%	Responses	%	Responses	%	
1. Residential Location							
a) Urban (692)	583	84.2	43	6.2	66	9.5	
b) Rural (335)	282	84.2	28	8.4	25	7.5	
2. Gender							
a) Male (503)	416	82.70	44	8.75	43	8.55	
b) Female (524)	449	85.69	27	5.15	48	9.16	
3. Age Bracket							
a) 40+ (242)	208	85.95	10	4.13	24	9.92	
b) 36--40 (239)	200	83.68	21	8.79	18	7.53	
c) 31--35 (126)	104	82.54	6	4.76	16	12.70	
d) 26--30 (184)	154	83.70	16	8.70	14	7.61	
e) 21--25 (232)	196	84.48	17	7.33	19	8.19	
f) 15--20 (004)	3	75.00	1	25.00	0	0.00	
4. Education							
a) Professional Degree (232)	198	85.34	9	3.88	25	10.78	
b) Post Graduate (212)	180	84.91	20	9.43	12	5.66	
c) Graduate (291)	238	81.79	24	8.25	29	9.97	
d) Secondary School (089)	71	79.78	7	7.87	11	12.36	
e) Diploma (102)	86	84.31	6	5.88	10	9.80	
f) PhD (077)	68	88.31	5	6.49	4	5.19	
g) Primary School (024)	24	100.00	0	0.00	0	0.00	
5. Occupation							
a) Employed (248)	224	90.32	10	4.03	14	5.65	
b) Students (152)	140	92.11	2	1.32	10	6.58	
c) Self Employed (209)	182	87.08	16	7.66	11	5.26	
d) Pensioner/ Retired (119)	92	77.31	11	9.24	16	13.45	
e) Business (151)	104	68.87	22	14.57	25	16.56	
f) Home maker (148)	123	83.11	10	6.76	15	10.14	

Table 4: Observation Table of Hypothesis-4 [H₄]

Are the benefits/ privileges associated to your membership schemes making you shop more frequently.							
Particulars Totals (1027)	Agree		Neutral		Disagree		
	Responses	%	Responses	%	Responses	%	
1. Residential Location							
a) Urban (692)	570	82.37	72	10.40	50	7.23	
b) Rural (335)	294	87.76	26	7.76	15	4.48	
2. Gender							
a) Male (503)	439	87.28	41	8.15	23	4.57	
b) Female (524)	425	81.11	57	10.88	42	8.02	
3. Age Bracket							
a) 40+ (242)	198	81.82	29	11.98	15	6.20	
b) 36--40 (239)	209	87.45	18	7.53	12	5.02	
c) 31--35 (126)	104	82.54	12	9.52	10	7.94	
d) 26--30 (184)	154	83.70	17	9.24	13	7.07	
e) 21--25 (232)	197	84.91	20	8.62	15	6.47	
f) 15--20 (004)	2	50.00	2	50.00	0	0.00	
4. Education							
a) Professional Degree (232)	192	82.76	26	11.21	14	6.03	
b) Post Graduate (212)	185	87.26	16	7.55	11	5.19	
c) Graduate (291)	255	87.63	23	7.90	13	4.47	
d) Secondary School (089)	66	74.16	13	14.61	10	11.24	
g) Primary School (024)	24	100.00	0	0.00	0	0.00	
5. Occupation							
a) Employed (248)	205	82.7	25	10.08	18	7.26	
b) Students (152)	133	87.5	10	6.58	9	5.92	
c) Self Employed (209)	178	85.2	22	10.53	9	4.31	
d) Pensioner/ Retired (119)	101	84.9	11	9.24	7	5.88	
e) Business (151)	127	84.1	12	7.95	12	7.95	
f) Home maker (148)	120	81.1	18	12.16	10	6.76	

Table 5: Consolidated Table for Hypothesis' Responses

Hypothesis Responses	Agree	Disagree	Neutral	Acceptance [%]	Total
Hypothesis-1 [H1]	918	19	90	83.39	1027
Hypothesis-2 [H2]	886	51	90	86.27	1027
Hypothesis-3 [H3]	865	91	71	84.23	1027
Hypothesis-4 [H4]	864	65	98	84.13	1027

Table 6: Hypothesis' Resultant Table for [H1]

Hypothesis	Classification	Outcome	Acceptance
H1: E-Commerce websites enable fast & anytime shopping at the user's convenience.	1. Residential Locations	Dissimilarity	Hypothesis accepted with the majority criteria of classification.
	2. Gender	Similarity	
	3. Age Bracket	Dissimilarity	
	4. Education Level	Similarity	
	5. Occupation Sectors	Similarity	

Table 7: Hypothesis' Resultant Table for [H2]

Hypothesis	Classification	Outcome	Acceptance
H2: Do you use Discounts and offers from a website where you earlier purchased a product from?	1. Residential Locations	Similarity	Hypothesis accepted with all the criteria of classification.
	2. Gender	Similarity	
	3. Age Bracket	Similarity	
	4. Education Level	Similarity	
	5. Occupation Sectors	Similarity	

Table 8: Hypothesis' Resultant Table for [H3]

Hypothesis	Classification	Outcome	Acceptance
H3: Do you use cashback points from a website where you earlier purchased a product from?	1. Residential Locations	Similarity	Hypothesis accepted with the four criteria of classification.
	2. Gender	Similarity	
	3. Age Bracket	Similarity	
	4. Education Level	Similarity	
	5. Occupation Sectors	Dissimilarity	

Table 9: Hypothesis' Resultant Table for [H₄]

Hypothesis	Classification	Outcome	Acceptance
H₄ : Are the benefits/privileges associated to your membership schemes making you shop more frequently?	1. Residential Locations	Dissimilarity	Hypothesis accepted with the four criteria's of classification.
	2. Gender	Similarity	
	3. Age Bracket	Similarity	
	4. Education Level	Similarity	
	5. Occupation Sectors	Similarity	

Questionnaire

The Questionnaire is divided into parts

- Customer Information
- Customer view about questions.

The Classification of data is on the basis of different categories like

- Place of Stay
- State
- Gender
- Age
- Education Levels
- Work Status
- Frequently of online shopping
- Money Spend per Month
- Preferred device
- Time of web surfing

And all the Categories are classified into 3 Parameters

- a) Agree b) Neutral c) Disagree

Questions are as follows:

Section - I

- Q1. Please choose your current residential location.
- A. Rural
B. Unban
- Q2. To which state do you belong?
- A. Rajasthan
B. Madhya Pradesh
C. Uttar Pradesh
D. Punjab
E. Delhi
- Q3. Please mention your Gender
- A. Male
B. Female
- Q4. What age bracket do you fit into?"
- A. 15--20
B. 21--25
C. 26--30
D. 30--35
E. 36--40
F. 40+

- Q5. Please choose your highest level of education
- A. Secondary School
 - B. Professional Degree
 - C. Diploma
 - D. Graduate
 - E. Post Graduate
 - F. PhD
 - G. Primary School
- Q6. Please choose your occupation
- A. Employed
 - B. Students
 - C. Self Employed
 - D. Pensioner/ Retired
 - E. Homemaker/House Wife
 - F. Business
- Q7. How frequently do you shop things online?
- A. Yes, all the time
 - B. Yes, sometimes
 - C. Yes, but rarely
- Q8. What is the price of your largest payment on the Internet?
- A. Less than rupees 1000
 - B. Rupees 1000 to 5000
 - C. Rupees 5000 to 10,000
 - D. Above rupees 10,000
- Q9. Which device you mostly use from below to browse online shopping sites.
- A. Laptop
 - B. Desktop
 - C. Tables
 - D. Smart Phones
- Q10. Please select, how many hours do you spend on the internet a day?
- A. 1-2 Hours
 - B. 2-3 Hours
 - C. 3-4 Hours
 - D. More than 4 hours
 - E. Less than 1 hour

Section - II

- Q1. Please choose why do you prefer online shopping.
- A. Saves time
 - B. Convenient and flexible
 - C. Wide range of choices
 - D. Flexibility in product prices
- Q2. Please select a service or feature of an online shopping website that makes you go back to it for more shopping.
- A. On-time delivery,
 - B. Easy return
 - C. Easy Payment methods
 - D. Attractive discounts and offers

- Q3. Please choose, what is your preferred way of payment.
- A. Credit Card
 - B. Debit Card
 - C. Internet banking
 - D. Paytm
 - E. Cash
- Q4. From the below options, which one do you believe is a major reason that could help a business retain its customers:
- A. Timely response to customer complaints
 - B. Providing quality services
 - C. Branding strategies
 - D. Product Uniqueness
 - E. Providing reliable services to customers
 - F. Building customer relationships
- Q5. The major reason behind switching from one online website to another site?
- A. Poor delivery Services
 - B. Difficult Software
 - C. No timely response to customer complaints
 - D. No discounts and offers
 - E. Minimum range of choices
 - F. High Prices compare to other websites.
- Q6. Select one of the major reasons from below that makes you go back to a shopping site for another purchase.
- A. General customer satisfaction
 - B. Product or service uniqueness
 - C. Customer relationship
 - D. Response to complaints
 - E. Branding of products
- Q7. Please choose major reason based on which E-commerce companies can plan customer retention more effectively:
- A. Earned profit percentage for the past year.
 - B. Sales volume for the past year.
 - C. Sales of products and services for the past year
 - D. Increased market shares for the past year.

Section - III

- Q1. Is Online Purchasing Secured?
- A. Agree
 - B. Neutral
 - C. Disagree
- Q2. E-Commerce websites enable fast & anytime shopping at the user's convince.
- A. Agree
 - B. Neutral
 - C. Disagree
- Q3. Purchasing products online is less expensive.
- A. Agree
 - B. Neutral
 - C. Disagree

- Q4. Please select, do you use discounts and offers from a website that you earlier purchased a product from?
- A. Agree
 - B. Neutral
 - C. Disagree
- Q5. Please choose an option for do you use cashback points from a website that you earlier purchased a product from?
- A. Agree
 - B. Neutral
 - C. Disagree
- Q6. Are the benefits/ privileges associated with your membership schemes making your shop more frequently?
- A. Agree
 - B. Neutral
 - C. Disagree
- Q7. Have you ever switched from your frequent ordering website to another online site?
- A. Agree
 - B. Neutral
 - C. Disagree
- Q8. Please select, are you often purchase multiple products from a shopping website?
- A. Agree
 - B. Neutral
 - C. Disagree
- Q9. Have you ever paid a fee/bill on the Internet with benefits like cashback or offers?
- A. Agree
 - B. Neutral
 - C. Disagree.



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