

Impact of Digitalization in Rural Punjab

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Abstract

It is well known fact that India being a quick developing country handles mammoth information on day after day. For a protracted time, we've got been exploitation written information sources that created out by the economical efforts of publishers, booksellers, librarians and data scientists. But, with the introduction of data technology such a big amount of steps are taken to cut back the efforts during accessing the data in a short span of time. One of the many application of the conversion of information i.e., to convert the written information in the digital form and created out there to be used with the help of computer networks. This has modified the entire state of affairs of data world. The present study was conducted in the district namely Ludhiana of Punjab state. A sample of 50 IT experts from district who were involved in various digital operations in department of e-panchayat was selected for this study. A well-structured interview schedule was used to collect the information required to fulfill the objectives of the study. Apart from interviews, field observations were also made to observe the Impact of Digitalization in Rural India. It is identified that determinants of impact of digitalization in rural Punjab are considered as age, education, working hours, pay-scale, experience in work, Training for this occupation, problems faced in performing digital work, job-satisfaction

and motivation at work. Mostly young and highly qualified employees are involved in the digital work as this work require brainstorming and tiresome also. Pay-scale of computer operators is very low as compared to their work performance i.e. in-between Rs. 10000-30000. All of the employees are facing problems regarding software/network issues as well as non-availability of data as system is not working efficiently as expected by authorities. They have to wait for the solution of problems for longer time intervals and perform their duties on the basis of motivation provided by seniors. It has been suggested that there is requirement to improve the issues related to software/network and non-availability of data for the successful digitalization in rural Punjab. A trial must be made by the state on the basis of blue print of their projects before implying the digitalization in each and every sector of region, so that successful implementation can be possible in broader terms.

Keywords: Digitalization, Rural Punjab, E-Panchayat, Computer Operators.

Introduction

Digitalization is that the method of changing information into a digital format. Digitalization is nothing but making your daily life less dependent and devoid of human interaction with the help of technology. Now the entire world is in our mobile handsets. Now it is easy to book a travel ticket, do shopping, chat with your loved ones across the globe and even share your views to the external world more freely and easily. India being a quick developing country handles mammoth information on day after day. Our head will start spinning with the thought of managing just the personal details of 1300 million people in a conventional way. There emerged the concept of Aadhaar card. Now there is no need to feed the personal details to get a mobile sim just your Aadhaar number is enough to feed all the necessary details. Right info to the correct user at the correct time has been the aim of data professionals. Recent developments within the information and communication

technologies, particularly the net and therefore the internet based mostly technologies have brought vital changes in the ways that the data generate, distribute, access and use. These technologies play a very important role to reduce the issues in exploiting information at its earliest.

For a protracted time, we've got been exploitation written information sources that created out by the economical efforts of publishers, booksellers, librarians and data scientists. But, with the introduction of data technology such a big amount of steps are taken to cut back the efforts during accessing the data in a short span of time. One of the many application of the conversion of information i.e., to convert the written information in the digital form and created out there to be used with the help of computer networks. This has modified the entire state of affairs of data world. Administratively India is way back in digitalization. For a quick dynamic world we want the information management to be worn out a sight. Data storage and retrieval is harder and tiresome in the conventional way. Moreover digitalization will collect all the wants to be served at one purpose. It is doable to bring all the non-public details, finances and legal entities to be stored, monitored and managed at a single source. This could herald a lot of transparency, better management and way for faster growth. Thus digitalization turns out to be the key to success in the emerging world.

Review of Literature

Khan et.al (2015) carried out their study on digitalization and its impact on economy. Researchers explained that digital conversion of print sources has improved rapidly in the past few years. Digitization is the social transformation started by the massive adoption of digital technologies to generate process, share and manage digital information. It has been found that emerging digitization initiatives and ways in which institutions are becoming digital are causing various effects on economy, society and academics as well. These radical and rapid changes make the

information presentation and distribution more rapid, open, and global access to the information than has been available in the past. Researchers concluded that for utilizing the full benefits from digitization, organizations should select the material carefully for digitization and digitize only those items that will provide the maximum benefit to both administrator and user. Because, successful digital projects are the outcome of careful evaluation of collections, and also, careful assessment of the institution's goals and priorities and development of thoughtful strategies will assure that meaningful, high-quality digital versions are created, and that both original and digital assets are managed well over time.

Ernst & Young (2011) has focused his study on the digitization of everything and how organizations must adapt to changing consumer behavior. Researcher explained that every company encompasses a web site, and few promoting ways area unit signed off while not incorporating social media. Certainly, social media could be an essential part of any digital strategy; however a holistic response to the digital shift should go abundant more. It has been found that the conversion of everything could be an amendment even bigger than the invention and adoption of the web, primarily attributable to its scale and pace of amendment. What we have a tendency to describe nowadays as 'digital' during a few years' time will have no need for the descriptive word. It is concluded that not each digital initiative can work for each organization, and it's necessary to assess capability and capability for amendment before deploying a digital strategy. In general, though the more holistic the initiative, the greater the chance of success.

Sheetal (2016) investigated about luxury retail industry is evolving in India. Researcher explained that understanding consumer interests can help luxury houses formulate a social media strategy that works to engage and interact with enthusiasts by keeping them up-to-date on brand happenings, products and services within the dynamical luxury landscape, marketers should have brand presence,

both online as well as offline. They should judiciously spend their marketing budget of luxury brands on both the channels. According to the findings of this study most brands have in-house training systems to train staff on aspects such as etiquette, visual merchandizing and knowledge. In conclusion, it is important for luxury retailers to work at the consumer end and to create awareness about genuine products. This is even more important as a large number of aspirers with diverse backgrounds and limited knowledge of products have become potential consumers.

Objective of the study:

To Analyze the Impact of Digitalization in Rural Punjab.

Methodology

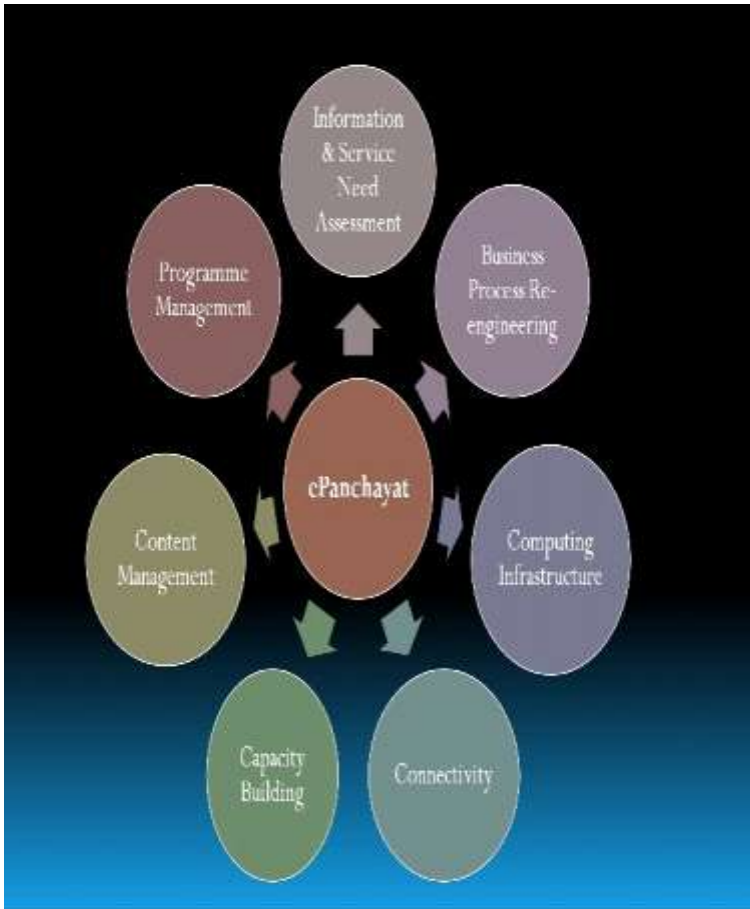
The present study was conducted in the district namely Ludhiana of Punjab state. A sample of 50 computer operators from district who were involved in various digital operations in department of e-panchayat and other public departments was selected for this study. A well-structured interview schedule was used to collect the information required to fulfill the objectives of the study. Apart from interviews, field observations were also made to observe the Impact of Digitalization in Rural Punjab.

Digitalization of Rural India

Indian economy is an agriculture based economy, so majority of people lives in the villages and these villages are governed by panchayats also known as Panchayat Raj Institutions. Government of India (GOI) has initiated the e-governance theme called e-Panchayats. ePanchayat System introduced by the Government of India aims to streamline the functioning of Panchayat Government by the effective use of Information Technology. Named as e-Panchayat Mission Mode Project (MMP), it promotes the use of IT in Village Panchayats for automating their internal workflow processes for better functioning and delivery of citizen services leading to increased transparency and accountability. Under this program ,Eleven Core Common

applications are installed at all e-Panchayats that address all aspects of Panchayats' functioning like internal core functions such as Planning, Monitoring, Implementation, Budgeting, Accounting, Social Audit or citizen service delivery like issue of certificates, licenses etc. Further certain services will be provided online such as pension, house tax, and birth and death certificates issuance. Additionally, there'll be Business method Re-engineering of the services provided by Panchayats in order that the method of receiving any demanded service is greatly simplified. There will bring improved transparency within the workings of the punchayat with punchayat knowledge created on the market on the net. So far e-Panchayat Mission Mode Project has not been much successful. The Government never provided explicit funds of this project. Various States have however utilized the extra funds from other schemes for implementing e-Panchayat Mission Mode Project, but not much success has been achieved till now.

Figure1: Functions of e-panchayat in India



Projects under the Digital India Initiative

To increase digital connectivity and make governance more transparent, Digital India initiative has launched some amazing projects.

Here are some key initiatives which form a part of Digital India week-

1. Digi Locker: it was launched as a main facility to save important documents like Voter ID Card, Pan Card, BPL Card, Driving License, education certificates, etc. in the cloud network.
2. MyGov.in: it is a portal which works online to engage people in governance through a “Discuss”, “Do” and “Disseminate” approach.
3. e-Sign Framework :through this initiative users can digitally sign a document online by using Aadhaar authentication.
4. Swach Bharat Mission Mobile App: The app will help various organizations and individuals to access information regarding the cleanliness drive and achieve the objectives of Swach Bharat Mission.
5. National Scholarship Portal: This initiative aims at making the scholarship process easy. From submitting the scholarship application, verification, sanction and disbursal to end beneficiary, everything related to government scholarships can be done on this single portal online.
6. e-Hospital: it is an Online Registration System under which people can receive services like online registration, payment of fees and appointment, online diagnostic reports, checking on the availability of blood online, etc.
7. Digitize India Platform: This initiative will involve digitization of data and keep records at large scale to make easy and quick access for citizens.
8. Bharat Net: Under this service, a fastest digital highway will connect 250,000 gram panchayats of the country.
9. Wi-fi Hotspots: Development of BSNL wi-fi hotspots throughout the country is yet another effort to improve digital connectivity in the country.
10. Next Generation Network: This service will replace decadal old telephone exchanges to manage and develop various types of services like voice, data, multimedia and other types of communication services under the supervision of BSNL.

11. Electronics Development Fund: This fund will be settled to support the manufacturing of electronics products. It would help to create new jobs and reduce volume of imports. The funds will encourage innovation, research and product development within the country.
12. Centre of Excellence on Internet of Things (IoT) : IoT will help people those were employed in services like transport system, parking, electricity, waste management, water management and women's safety to create smart cities, smart health services, smart manufacturing and smart agriculture, etc.

Ludhiana is Punjab's largest city and among the list of smart cities that will be developed by government of India. The World Bank ranked Ludhiana as the city in India with the best business environment. The riches are brought mostly by small-scale industrial units, which produce industrial goods, machine parts, auto parts, household appliances, hosiery, apparel, and garments. (Wikipedia visited on 5/10/2019) Ludhiana contributes most in the revenue of Punjab state as compared any other city. Ludhiana also has a growing IT sector with multiple software services and product companies having development centers in the city. There are 13 blocks in Ludhiana district and 941 Gram Panchayats in district Ludhiana which were currently developing under the department of Rural Development and panchayat which is one of the fifty departments of Punjab. The detail of Block-wise panchayats of district Ludhiana has been presented in Table 1.

Table 1
Block-Wise Panchayats of District Ludhiana

Block Name	No. of Gram Panchayats
Dehlon	46
Doraha	62
Jagraon	81
Khanna	67
Ludhiana-1	109
Ludhiana-2	160
Machhiwara	116
Maloud	48
Pakhowal	39
Raikot	42
Samrala	62
Sidhwan bet	61
Sudhar	48

Source: Government of Punjab portal

Results and Discussion

Distribution of respondents according to their General Information is given in Table 2. The perusal of the Table 2 reveals that majority of computer operators are young and belong to two age groups i.e. below 30 years and 30-40 years; 60 percent of computer operators come under the age group 30-40 years and 40 percent of them are below age 30 years. Second property is about their marital status, as highest percent of respondents are married i.e. 80 percent and only 20 percent of them are unmarried. Third parameter is education of data entry operators, most of them are highly educated and have done post-graduation i.e. 90 percent and only 10 percent of them completed their graduation. Fourth factor represents about the daily working hours in which respondents perform their duties.

Majority of them work for 8 hours i.e. 94 percent and only 6 percent of them have to work for 10 hours under unforeseen circumstances. Fifth property represents the income of computer operators as 90 percent of them come under the income slot of Rs.10000-30000 and only 10 percent belongs to income group of Rs.30000-40000.

Table 2
Distribution of Respondents according to Their General Information

Age(in years)	Below 30	30-40	40-50	Above 50
	20(40)	30(60)	0(0)	0(0)
Marital status	Married	Unmarried		
	40(80)	10(20)		
Education	Matric	Secondary	Graduation	Post-graduation
	0(0)	0(0)	5(10)	45(90)
Occupation	Computer operators			
Daily working hours	8 hours	10 hours	12 hours	
	47(94)	3(6)	0(0)	
Income (in rupees)	10000-20000	20000-30000	30000-40000	Above 40000
	23(46)	22(44)	5(10)	0(0)

Source: Field survey 2018-19

Note: the figures given in parentheses represent percentages

The Information Related to Work has been given in Table 3. The information contained in the Table 3 shows that majority of computer operators have experience of doing digital work is more than 2 years as 40 percent respondents have worked for 2 -5 years and 44 percent respondents have experience of more than 5 years; only 16 percent of data entry operators have experience less than 2 years. All the computer operators have got training for their occupation after joining and everyone is facing problems in dealing with digital work. They continuously face the problems regarding software/network issues as well as non-availability of data, 76 percent

of them face both of these problems, and 14 percent of computer operators face the problem of software/network and 10 percent of them have problem of non-availability of data. They all dealt with the issue of delaying the solution of problems and there is no specific limit for the solution of problems by senior technicians. 58 percent of respondents are satisfied with their work and 42 percent are not content in this matter on the basis of motivation they have received for their performance as 66 percent computer operators have been motivated by their seniors and 34 percent of them do not receive any motivation in this regard.

Table 3
Information Related to Work

Years spend in doing digital work	0-2 years	2-5 years	More than 5 years
	8(16)	20(40)	22(44)
Training for this occupation	Yes	No	
	50(100)	0(0)	
Any kind of problem faced during doing digital work	Yes	No	
	50(100)	0(0)	
Problem regarding	Software/network issues	Non-availability of data	Both
	7(14)	5(10)	38(76)
Problems have been solved by senior technicians within time frame of.....	Within 1-2 days	More than 2 days	No specific limit
	0(0)	0(0)	50(100)
Satisfied with your daily office work/job	Yes	No	
	29(58)	21(42)	
Any motivation or support by senior staff	Yes	No	
	33(66)	17(34)	

Source: Field survey 2018-19

Note: the figures given in parentheses represent percentages.

Findings

1. Mostly young and highly qualified employees are involved in the digital work as this work require brainstorming and tiresome also.
2. Pay-scale of computer operators is very low as compared to their work performance.
3. All of the employees are facing problems regarding software/network issues as well as non-availability of data as system is not working efficiently as expected by authorities.
4. They have to wait for the solution of problems for longer time intervals and perform their duties on the basis of motivation provided by seniors.

Recommendation

A trial must be made by the state on the basis of blue print of their projects before implying the digitalization in each and every sector of region, so that successful implementation can be possible in broader terms. Networking systems also need to be improved for the successful digitalization and it will help the employees to work efficiently without delays and errors. The soft wares or portals are not user friendly and it is difficult for layman to understand and read information from them. People still depends upon manual reports as it is hard to feed accurate digital information by using digital network system due to some undefined issues. First of all, there is requirement to improve the issues related to software/network and non-availability of data for the successful digitalization in rural Punjab.

Conclusion

It is identified that determinants of impact of digitalization in rural Punjab are considered as age, education, working hours, pay-scale, experience in work, Training for this occupation, problems faced in performing digital work, job-satisfaction and motivation at work. Mostly young and highly qualified employees are involved in the digital work as this work require brainstorming and tiresome also. Pay-scale of computer operators is very low as compared to their

work performance i.e. in-between Rs. 10000-30000. All of the employees are facing problems regarding software/network issues as well as non-availability of data as system is not working efficiently as expected by authorities. They have to wait for the solution of problems for longer time intervals and perform their duties on the basis of motivation provided by seniors. It has been suggested that there is requirement to improve the issues related to software/network and non-availability of data for the successful digitalization in rural Punjab. A trial must be made by the state on the basis of blue print of their projects before implying the digitalization in each and every sector of region, so that successful implementation can be possible in broader terms.

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Time Series Analysis of Gold Price Using R

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Abstract

The regression analysis is used to predict an outcome based on historical data. Time series analysis is another approach to predict and used in business where some limitations survive with the regression technique. In the scenario of the business process, the goal of time series is to forecast future asset prices, generate simulations of future trends and identification of relationships between time series with other quantitative values. Data presented in the form of time series as its analysis is vital in the business domains. In this chapter, a brief overview of time series analysis and applications are discussed. The chapter also explains to build and analyze a time series based on Gold price using the software R.

Introduction

The Gold

Gold is a chemical element. Its symbol is *Au* and atomic number 79. It is a bright, slightly reddish yellow, dense, soft, malleable, and ductile metal. According to the World Gold Council, India is one of the largest markets for Gold, and growing affluence is driving growth in demand. Gold has a central role in the country's culture, considered a store of value, a symbol of wealth and status. According to a report by the World Gold Council, annual data from 1990 to 2015, revealed two significant factors affecting gold consumer demand (jewelry, and coin) over the long-term (Sunil Dhawan,2019).

Time Series

Time series data is quantitative data in a series of particular periods or intervals. Time series data occurred when monitoring industrial processes or tracking corporate business metrics. Time series data can be defined as an ordered sequence of values of a quantitative variable at equally spaced time intervals. A time series has some quantitative value that is measured sequentially in time over some interval. Time series analysis has been exploited for many applications, e.g., sales forecasting, economic forecasting, budgetary analysis, yield projections, stock market analysis, census analysis, process, and quality control, inventory studies, workload projections, utility studies.

Time series analysis attempts to understand the chronicle data and predict future data. The time-series has four necessary components trend, seasonal, cyclical, and irregular. A trend is an overall directional movement of a time series. The trend will either be deterministic or stochastic. From a modeling viewpoint, the trend is the essential component of a time series. Many time series contain seasonal variation, and the seasonal component is measured on a monthly or quarterly basis. The cyclical component is considered over a long-time prospect, typically one year or longer. That occurs when

time-series observations that are close together in time tend to be correlated. Irregular effects are the impact of any random events such as earthquakes, strikes, and disasters. The nature of Irregular effects is entirely unpredictable.

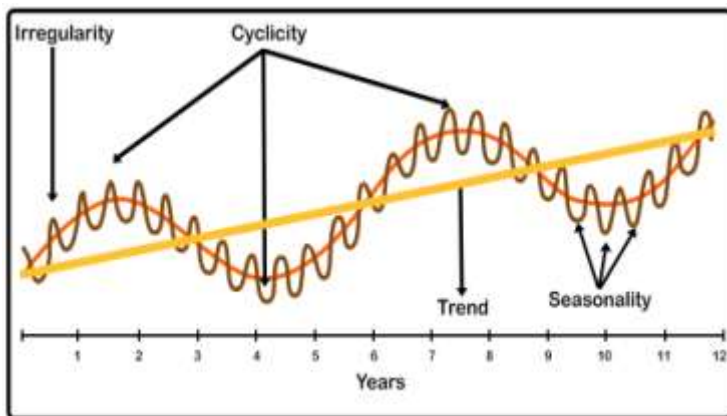


Figure 1 Time Series components¹

A time series is a sequence of observations measured at successive points in the timestamp. Time series data consists of four components. These are a trend (T), seasonality (S), cyclical (C), and Irregularity (noise) (ϵ).

Model equation of Time series when seasonal fluctuation is constant

$$Y_t = T_t + S_t + \epsilon_t \quad (1)$$

Model equation of Time series when seasonal fluctuation is not constant

$$Y_t = T_t \times S_t \times \epsilon_t \quad (2)$$

ARIMA Model

ARIMA model of time series introduced by Box and Jenkins introduced in 1970. This type of model includes three models of time series, the Autoregressive (AR), Moving Average (MA) and Autoregressive Moving Average (ARMA). The general notation for the ARIMA model is ARIMA (p, d, q). Where p is the number of lag

observations included in the model, also called the lag order. The d is the number of times that the raw observations are differenced, also called the degree of difference. The q is the size of the moving average window, also called the order of moving average.

Visualization of Time Series Analysis

Trend, seasonal, ACF, PACF are some useful plots for analysis and visualization purposes of time series. The autocorrelation function (ACF) gives values of auto-correlation of any series with its lagged values. An ACF plot describes the relation of the present value of the series with past values. The partial autocorrelation function (**PACF**) is a partial autocorrelation function and finds a correlation of the residuals with the next lag value.

Software R

R is a software environment with a programming language most commonly used for statistical computing and machine learning. It is maintained by the R Foundation. In 1993, R was developed by Ross Ihaka and Robert Gentleman at the University of Auckland, New Zealand. Now R is available as open-source software. R possesses an extensive catalog of statistical and graphical methods. R is not only entrusted by academics, even some reputed business organizations, including Uber, Google, Airbnb, Facebook, also use. The scientific community has also recognized computation using R. The enormous help and reference resources of R available on the internet.

In R, a time-series object similar to a data frame is used to store data of time series. An R function `ts()` is used to create a time-series object. The syntax of `ts()` as:

```
time-series.object.name = ts(data, start, end, frequency)
```

Here `data` is a vector containing the values in the time series, `start` specifies the first observation in time series, the `end` specifies the last observation in time series, and `frequency` specifies the number of observations per unit time.

Time Series Model Development

For the demonstration purpose of time series, secondary data is used. Dataset is retrieved from "https://www.indexmundi.com/." Data has three attributes and 240 observations of the monthly gold rate in India from September 1999 to August 2019.

Table-1 Attributes of the dataset

Month	Timestamp (month-year)
Price	Quantitative
Change	Ratio

Gold_data is a vector that contains data about the price of gold. To prepare the time series object of gold data following R command will be used, the series starts from the 9th month of 1999, and the frequency of time series is 12.

```
>gold.timeseries = ts(Gold_data,start = c(1999,9),frequency = 12)
```

Figure 2 Time Series of Gold Price

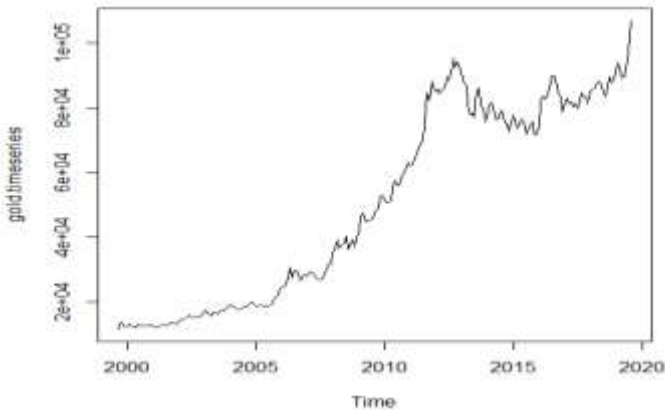
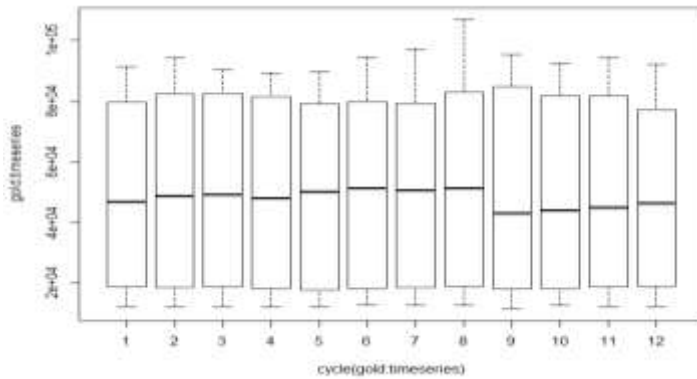


Figure 2 is the plot of the time series. Box plot across months will give us a sense on seasonal effect

```
> boxplot(gold.timeseries~cycle(gold.timeseries))
```

Figure 3 Seasonal effect of Gold Price



To plot a linear trend, give the following command. Figure 4 is shown time series data with a linear trend.

```
>abline(reg=lm(gold.timeseries~time(gold.timeseries)))
```

Figure 4 Time Series of Gold Price with Linear Trend

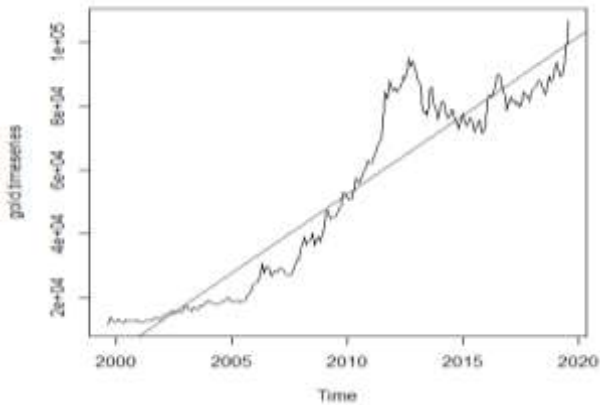


Figure 5 is shown the aggregate trend of the Gold price, following R command is used to prepare figure 5

```
>plot(aggregate(gold.timeseries,FUN=mean))
```

Figure 5 Aggregate trend of Gold Price

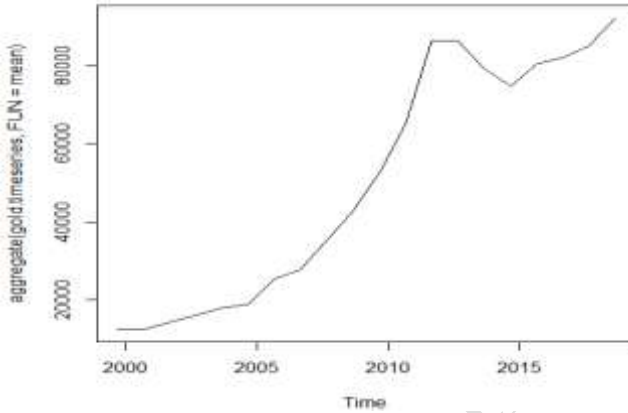


Figure 6 Autocorrelation Function
Series diff(gold.timeseries)

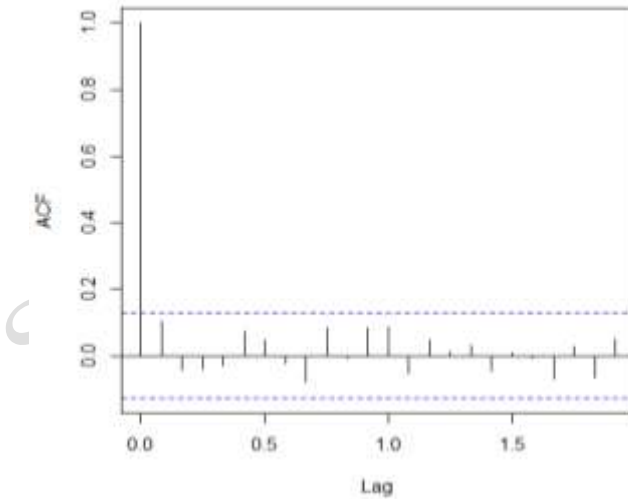
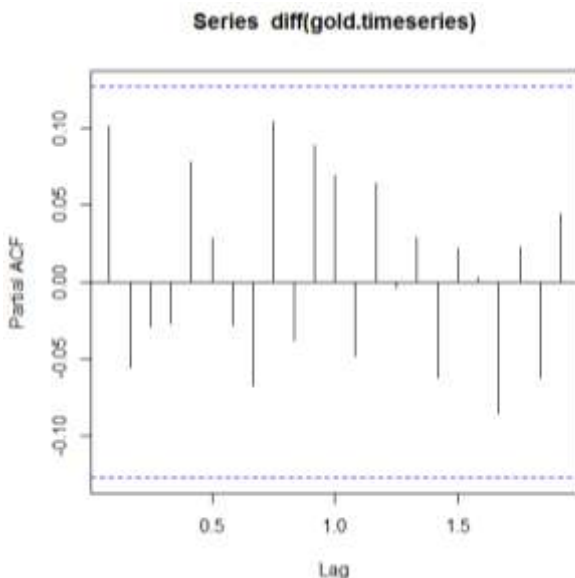


Figure 7 Partial Correlation function



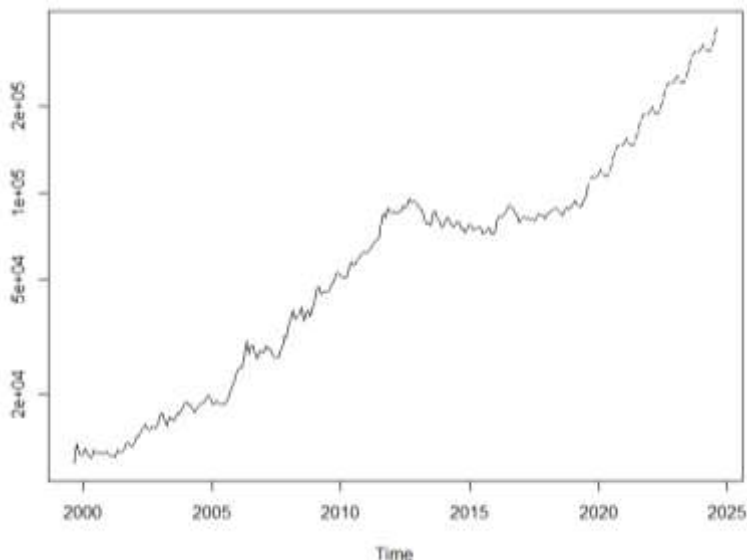
Following command are use to develop ARIMA time series, based on figure 6 and 7, suggested values of $p=0$ and $q=1$. as seasonally value of $d=1$.

```
(fit <- arima(log(gold.timeseries), c(0, 1, 1),seasonal = list(order = c(0, 1, 0), period = 12)))
```

```
pred <- predict(fit, n.ahead = 5*12)
```

```
> ts.plot(gold.timeseries,2.718^pred$pred, log = "y", lty = c(1,5))
```

Figure 8 Time Series of Gold Price with Next Five Years Forecasting



ARIMA time series model with five years predictions is shown in figure 8.

Conclusion

The chapter covers the fundamentals of time series analysis with a practical example of Gold price using R. present chapter helpful for visualized time series data and development of the ARIMA model using R.

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Endnotes

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‘SBI’- A Test of Significance on Real Implementation of Information Technologies & Modern Banking Facilities to Customer Related Services in Semi-Urban/Rural Areas

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Introduction

Banks need to leverage modern technologies to provide banking and financial services to the rural populace and thereby create hitherto unprecedented economic opportunities for them. Financial inclusion and the extension of financial services to every citizen of the country is a priority" —Pranab Mukherjee

The genesis of Information Technology in ‘State Bank of India’ can be traced back to the 1960s when it became the first Bank to introduce main-frame computers with the limited objective of facilitating inter-office reconciliation operations. The archaic punch-card operation was then regarded as an engineering marvel. However, Technology then was not regarded essential to Banking and therefore further growth of technology was slow.

Decade of 1970s

In 1970s, Data Processing Centers were set up by the Bank in the Local Head Office (LHOs) with punch-cards and collating machines of IBM. Technological growth was still nascent. Marching with the time, in early 1980s and with the introduction of Desktop Computers in 1982, the Bank upgraded the data processing Centers at LHOs to mini-computers. Phenomenal growth of branches in 1980s and practical difficulties in data collation and compilation necessitated Bank to partly decentralize the Management Information System which led to establishment of Zonal Office Computer Centers in 1980s. Ledger posting machines (ALPMs) were also introduced during this period to relieve ledger-keepers from the drudgery of manual posting of ledgers. This was an era when human interface with the customers still occupied center-stage in Banking Operations and accordingly, there was a marked skepticism regarding full branch computerization. Apprehension of staff unions, albeit unfounded, that any large scale computerization would unleash mass retrenchment was another impediment to technological growth in the Bank.

Decade of 1980s

The year 1984 was important in the history of IT evolution in the Bank of two reasons:

1. The impetus imparted to technological development by a young and dynamic Prime Minister, Late Shri Rajiv Gandhi and the drawing up of the first industry level agreement on computerization which aided the Bank to automate the branch back-office day end work. Accordingly, time consuming tasks like writing of transfer scrolls, day books and clean cash book were handled by back-office computers. Back-office automation initially implemented at over 650 branches was an event of great significance and the convenience with which it empowered the branches was an eye opener for the staff.
2. In 1980s, the Bank also experimented without much success, message store and forward system for transmitting financial

messages. A dedicated voice communication network SBINET was introduced connecting all administrative offices and critical branches. DATANET was introduced during early 1990s in 1000 branches for reporting of agency clearing and government business transactions. Further, in order to strengthen to and fro transmission of data with our foreign offices, the Bank became a member of SWIFT.

Decade of 1990s

At the beginning of this decade, the Bank acquired the Bank master software from M/s Kindle and Co.; an Ireland based Software Company for full computerization of branches. Computerization assumed paramount importance to counter the competition unleashed by the new generation private sector banks that had mushroomed in a liberalized and globalized Indian economy. After customizing the Bank master and acclimatizing it to the Indian conditions, in February 1992, 'Back Bay Reclamation branch' at Mumbai was fully computerized and became the first branch working on Bank master. As on March 1995, only 35 branches were computerized. There was a slow and steady growth during the next five year. On January 2000, a small milestone was reached when 'Tondiarpet' branch at Chennai became the Bank's 2000th branch to be fully computerized.

Universal Computerization of Branches

The period 2000-02 was one of consolidation and stabilization. The Bank embarked upon re-planning of its strategies, preparation of manuals and imparting extensive training to staff through SBIICM and Satellite training centre.

Bank master software was customized to the specific requirement of semi-urban ("B" category) and rural ("C" category) branches. Implementation teams budding with the zest to achieve the objective within the time-frame were set up. Daily monitoring of the progress was the order of the day. Supply of hardware from the vendors, preparation of sites, clearing of arrears in housekeeping was managed with utmost finesse. The concerted efforts attained fruition

when all branches of the Bank and associates were fully computerized by January 2004 much ahead of the target date of December 2005.

The completion of Universal Computerization (of branches) Project well ahead of the schedule became a benchmark for the Bank to plan and implement its future IT projects.

Information Technology Plan

Bank master software introduced branch staff to computers with the attendant benefits of relieving them from the manual tasks of house-keeping, interest application and other banking activities. The legacy of Bank master with its distributed database was however a limiting factor to the customers' requirements for "Anytime Anywhere Banking". The Bank therefore embarked on world class centralized core banking solution to overcome these technological gaps and shortcomings.

After evaluation and benchmarking of competing international solutions, the Bank chose the solution offered by M/s Financial Network Systems, Australia for retail transactions, 'Finance One' of M/s Comlink, USA for Corporate General Ledger and Exim Bills of M/s China Systems for trade finance transactions. The customization of the solutions and system integration was entrusted to M/s Tata Consultancy Services (TCS), the largest software company in the country. The Core Banking Project was formally launched in June 2002 and the initial version was implemented at the first pilot branch, PBB Hiranandani in August 2003.

Core-Banking is a generic term, which denotes inter branches transaction capability through a central database. All other technology projects (like Trade Finance, treasury, Asset liability management, ATM, Internet Banking, and STEPS etc) will be fully integrated with Core Banking, and the Branch will also be a delivery channel available to the customer. CBS has brought about the capability to provide value added services to customers across multiple delivery platforms through integration of channels. The

customers as well as the Bank would have a single view of all relationships across the Bank, and eventually, across the Group.

As a critical component of Information Technology Plan, the Bank set up a country-wide Area Network (WAN) called 'SBI Connect' to facilitate migration of its branches from a distributed data infrastructure to a centralized date-base. Data craft India Ltd., was selected as the Network Integrator to design the network, install network and software and source bandwidth from service providers. The Bank has also set up a Network Operating Centre (NOC) at Bangalore to monitor the health, operating efficiency and capacity utilization of the network.

Based on the recommendations of KPMG, project "SBI First" commenced on 17th April, 2000 to cover all aspects of the Bank's IT developments. A detailed IT Plan for phased implementation commencing from 2002 was drawn to exploit technology for value addition, creating competitive advantage and for achieving operational efficiency.

The plan was to be implemented in Alternate Delivery

Channels:

1. State Bank Cash plus International Card
2. Internet Banking
3. e-pay
4. e-Rail
5. eZ-Pay Card
6. MICR (Magnetic Ink Character Recognition)
7. Time Real Gross Settlement System (RTGS) & National Electronic Fund Transfer system (NEFT)
8. SBI Vishwa Yatra Foreign Travel Card (FTC)
9. eZ-Trade
10. Gift-card
11. Demat Service
12. Fair Lending Practices Code (FLPC)
13. Elenor I and II

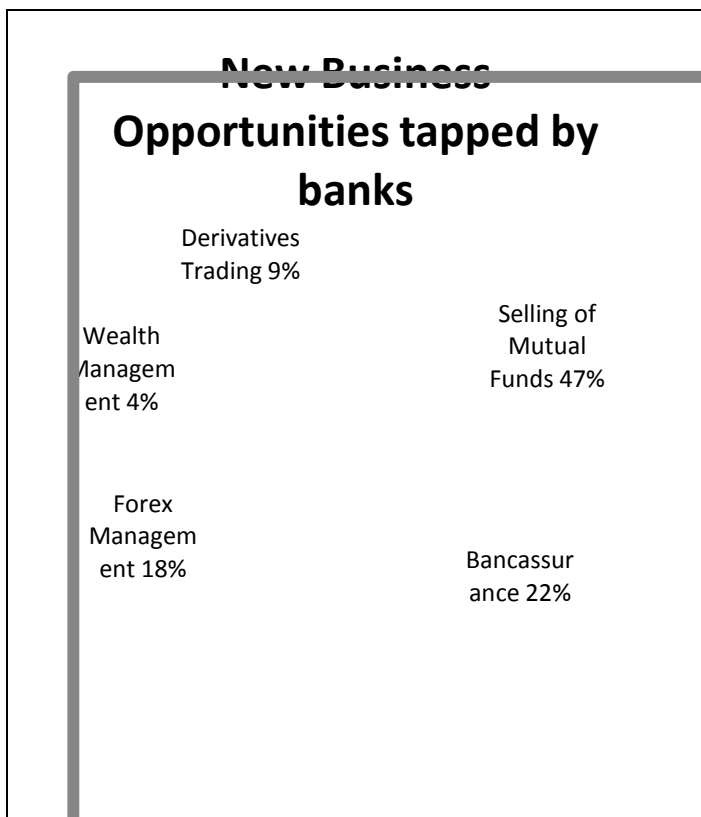
14. SWIFT – SFMS
15. Treasury Solutions
16. Transaction solutions.
17. Networking of branches
18. E-mail, intranet
19. Basic MIS and compliance solutions (ALM)
20. IT standards (Database, Operating System etc)
21. Operational data and Data Warehousing
22. Payment Gateway
23. Workflow and document management system
24. Data mining
25. Enterprise Risk Management

Origin of the Research Problem

Who are the Financially Excluded	Most Needed Services for Financially Excluded
Poor Socially under-privileged Disabled Old as well as children Women Uneducated Ethnic minorities Unemployed Low income self-employed Agricultural and industrial labour Those engaged in unorganised sector	Access to small loans or overdrafts Check in accounts Small savings products Remittances & Payment services Health insurance Life insurance Insurance against the failure of activity Financial advisory services Credit card Entrepreneurship credit

New Business Opportunities in Rural/Semi-Urban Areas

With the interest income coming under pressure, banks are urgently looking for expanding fee-based income activities in semi-urban/rural areas. Banks are increasingly getting attracted towards activities such as marketing mutual funds and insurance policies, offering credit cards to suit different categories of customers and services such as wealth management and equity trading. These are indeed proving to be more profitable for banks than plain vanilla lending and borrowing. 69 per cent of respondents stated that 20 – 30 % proportion of their total Income is constituted by fee-based incomes. Bank assurance and selling of mutual funds were recognized as the most tapped business opportunities by the bankers closely followed by Forex Management. Out of these selling of mutual funds was identified as the most profitable venture by 47 per cent of respondents.



Interdisciplinary Relevance

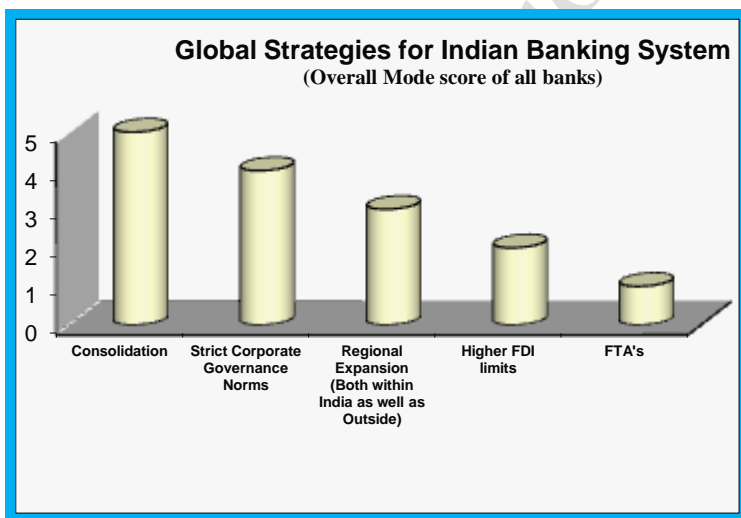
The pace and nature of banking will depend on the combined effect of technology and public policy, both at national and international levels. Economic integration occurs through three channels, viz., movement of people, goods and services, and movements in capital and financial services. In regard to capital movement, the interplay between technology and public policy becomes relevant. There are, however, some special characteristics of capital flows. These characteristics have highlighted the issue of what is described as contagion, namely, a country is affected by developments totally outside of its policy ambit though domestic policy

may, to some extent, determine the degree of vulnerability to the contagion.

Review of Research and Development in the Subject

International Status

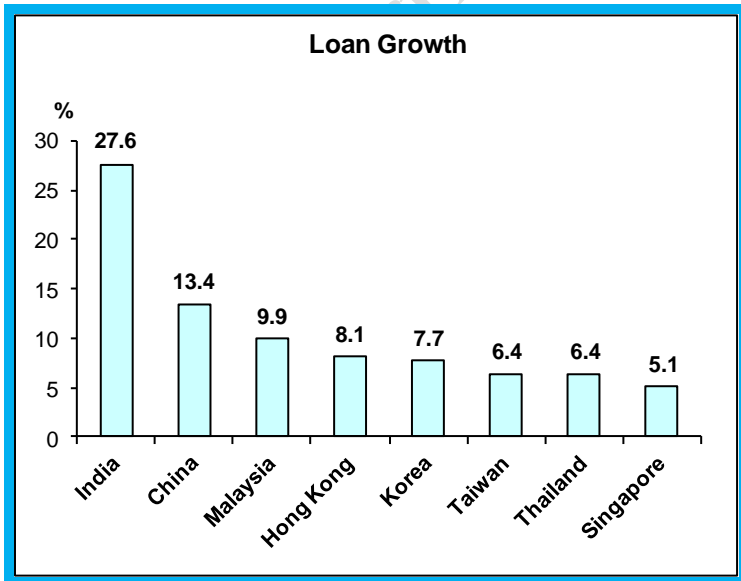
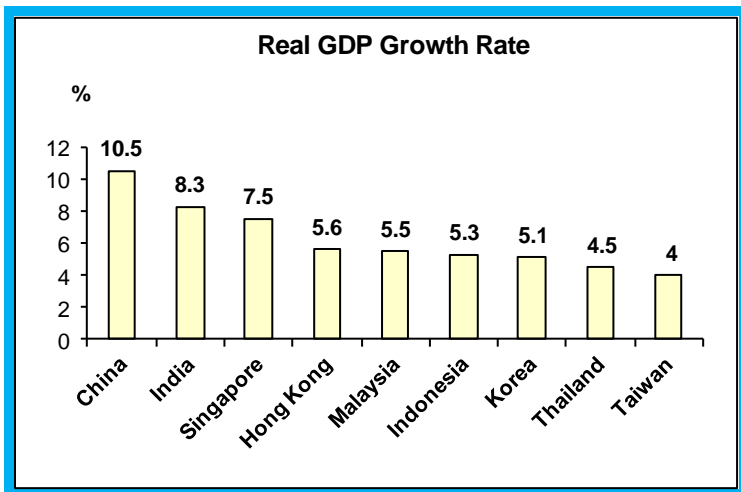
Banking in India has to travel a long way to achieve global competitiveness, but surely it is on its way. But the key questions at this hour how will India go about it, what structures need to be created and when will it happen? To find out what we need to do to be there, the results of the Mode score being accorded by the Public, Private and Foreign banks are presented below:



Annual Survey 2018, FICCI, The Indian Banking System, pg.4.

As evident from graph above, consolidation emerged to be the most significant measure required to create world class banking system followed by Strict Corporate Governance Norms, Regional Expansion, Higher FDI limits and FTA's. Of the many Asia Pacific countries, China, Taiwan, South Korea and India will continue to influence the development of the Asian markets. China and India are

one of the fastest growing economies in the world as evident from the graphs below:



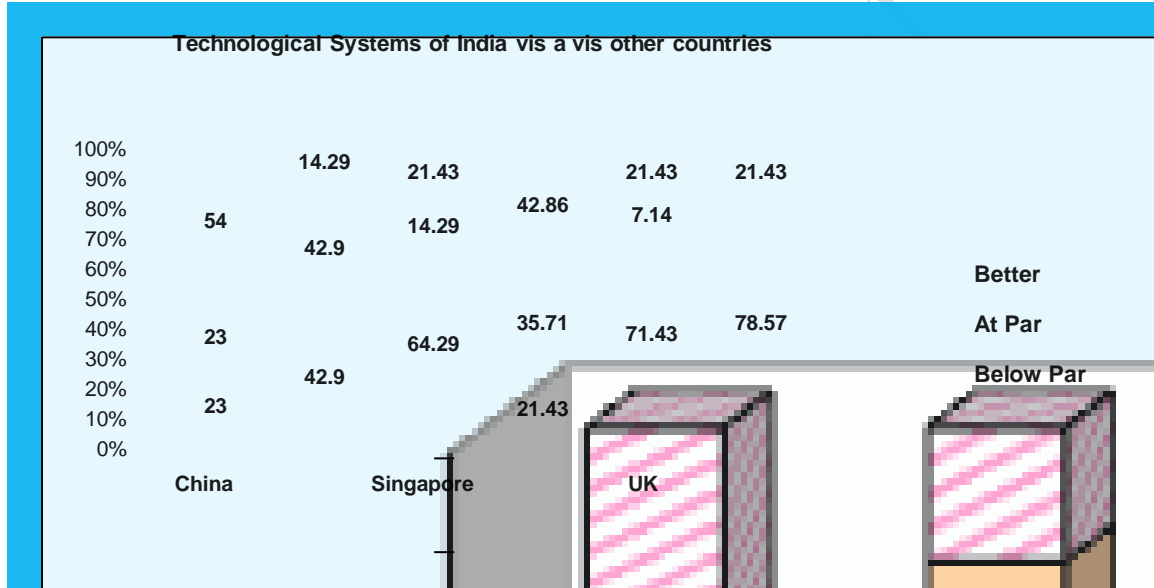
Annual Survey, 2018-19, FICCI, The Indian Banker, pg.5.

These above-mentioned countries, though at different stages of development, have the potential to become major growth markets for traditional banking, investment banking, insurance, and securities products. As a result, leading international and regional banks are interested to establish their presence in these countries.

The Indian banking sector has scored over its counterparts not only in developing but even in developed world such as Japan, Singapore and Australia on significant parameters. According to Moody's Investors Services data, Indian lenders have posted highest ROE of 20.38% (system average of three years), closely followed by Indonesia at 20.19% and New Zealand 18.83%. Japan, the biggest economy in Asia posted negative returns of 6.42%, implying that the banks there made losses. Banks of Philippines and Australia have posted an ROE of just 4.40% and 11.44% respectively.

Technology Comparison

Technology has given birth to a new era in banking. Technology can be the key differentiator between two banks and a major factor to attain competitive edge. Though slow in the beginning, Indian banks seem to have paced up in adoption of advanced technology. Technological systems of Indian banks have rated more advanced than China and Russia; at par with Japan, but less advanced than Singapore, UK and USA.



IT Capability in Indian Banks on Par with the Best Globally

The Indian banking sector is at a watershed. Brisk economic growth is opening up unprecedented opportunities. Several Indian banks are pursuing global strategies, as Indian companies globalize and people of Indian origin increase their investment in India.

At the same time a number of global banks have stepped up their focus on India, keen to participate in the sector's growth. Today, the question often asked is how competitive are Indian banks and do the practices at work in these banks compare against global best practices.

National Status

Pre-requisites in Meeting Customer Needs in Rural Markets

There is no doubt that the banking industry in India has come a long way especially after embracing modern technology. However, Indian banks face unique challenges in terms of rural customers and financial inclusion in rural India. Penetration of financial services is low in urban and rural India. The real problem is that banks cannot reach the rural population due to limited access to organize / affordable financial services. It is important for the banks to access the rural market and provide services, especially credit and insurance, since it will eventually increase livelihood opportunities. Due to financial illiteracy, rural customers prefer post office schemes and bank fixed deposits over equity.

Future of Rural Banking – Modern Technology

Mobile banking can cut down costs (mobile phone for banking operations = branchless banking), as physical infrastructure and human resources wouldn't be needed, which is a problem in rural areas and a major constraint in carrying out banking operations. We strongly feel that financial literacy should be considered as one of the first steps by banks and state government to access the low income segment and rural masses followed by technological innovations such as mobile bank

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SRF International

डिजिटल दुनिया : एक नज़र

नीतू गुप्ता

प्रवक्ता

हिन्दी विभाग

पी0पी0एन कालेज, कानपुर

उत्तर प्रदेश, भारत

सारांश

‘डिजिटलाइजेशन’ समकालीन समाज का सबसे बड़ा परिवर्तन है। एक दशक से अधिक समय से नवीन डिजिटल प्रथाओं ने ई-कॉमर्स में क्रांति ला दी है। डिजिटलाइजेशन के कारण ही ई-कॉमर्स और ऑनलाइन वितरण एक तेजी से बढ़ता हुआ उद्योग बन गया है, और आश्चर्य नहीं है कि जिनको फुटकर व्यापार करने की अनुमति नहीं थी, वे भी अब अपना सामान ऑनलाइन बेचेंगे।

प्रस्तावना

पूर्ण यौवन की चमक किसको आकर्षित नहीं करती? आज भारत भी अपने सम्पूर्ण निखार पर है और इस निखार पर चार चाँद बन कर चमक रहा है ‘डिजिटलीकरण’। आज दुनिया का प्रत्येक देश भारत की ओर आकर्षित हो रहा है और यहाँ अपनी कम्पनियाँ स्थापित करके व्यापार बढ़ाना चाह रहा है क्योंकि आज हम दुनिया के विकसित देशों के साथ कन्धे से कन्धा मिलाकर अग्रसित हो रहे हैं।

अध्ययन का उद्देश्य

इस पेपर के लिखने के पीछे मेरा उद्देश्य मात्र यह है कि वह व्यक्ति जो आज डिजिटलीकरण को अपनाने से पीछे हट रहा है वह भी कैशलेस इकनॉमी का हिस्सा बने। हमारी मातृभाषा हिन्दी है और आज

हिन्दी ने इन्टरनेट पर अपना आधिपत्य स्थापित कर लिया है इसलिए अपनी मातृभाषा का प्रयोग करके भी प्रत्येक भारतीय इस ओर कदम बढ़ाकर उन्नति की राह पर स्वयं को अग्रसित कर सकता है।

साहित्यवलोकन

अर्थशास्त्र से जुड़े अनेक जर्नल इण्टरनेट पर मिली तमाम जानकारियाँ और डिजिटलीकरण से जुड़े अनेक प्रकाशित लेखों के अध्ययन के पश्चात् मैं डिजिटलीकरण से जुड़े प्रभावों का अवलोकन कर सकी हूँ और इस तथ्य पर पहुँच सकी हूँ कि आज दुनियाँ से कदम मिलाने के लिए हमें प्रयासरत होना आवश्यक है। 1 जुलाई, 2015 को अचानक से एक गूँज उठी 'डिजिटल इंडिया'.....

देश के लोगों के बेहतर विकास और वृद्धि के लिए प्रधानमंत्री नरेन्द्र मोदी द्वारा क्रियान्वित की गयी एक प्रभावशाली योजना क्या है यह डिजिटलीकरण?

वास्तव में डिजिटलीकरण सूचना को डिजिटल अर्थात् कम्प्यूटर पठनीय प्रारूप में बदलने की प्रक्रिया है, जिसमें सूचना को बिट्स में व्यवस्थित किया जाता है। डिजिटलाइज्ड डेटा बाइनरी संख्याओं के रूप में होता है, जो कम्प्यूटर प्रोसेसिंग और अन्य संचालन को सुविधाजनक बनाता है।

डिजिटलाइजेशन को आकार देती 'फिनटेक कम्पनियाँ'—फिनटेक अर्थात् फाइनेशियल टेक्नोलॉजी – जिसका अर्थ यह है कि जब आप अपने वित्तीय कार्य को टेक्नोलॉजी की मदद से पूरा करते हैं तो उसे फिनटेक कहा जाता है और इस कार्य को पूरा करने वाली कंपनी को फिनटेक कंपनी कहा जाता है। एक तरह से यह पारंपरिक वित्तीय सेवाओं और विभिन्न कंपनियों तथा व्यापार में वित्तीय पहलुओं के प्रबन्धन में एक आधुनिक तकनीक है।

भारत में वित्तीय क्षेत्रों में डिजिटलीकरण

डिजिटलीकरण आज तेजी से भारत के अनेक वित्तीय क्षेत्रों में फैल रहा है। भारत की अर्थव्यवस्था को सामान्यतः तीन क्षेत्रों में विभाजित कर सकते हैं—

1. प्राइमरी सेक्टर।
2. माध्यमिक।
3. तृतीय श्रेणी का उद्योग⁽¹⁾

प्राइमरी सेक्टर

ये क्षेत्र निर्माण और उत्पादन के लिए पर्यावरण पर सीधे निर्भर है। उदाहरण के लिए— कृषि, खनन, खेती आदि।

माध्यमिक क्षेत्र

ये क्षेत्र कच्चे माल को मूल्यवान उत्पादों में परिवर्तित करता है।

तृतीय श्रेणी का उद्योग

ये क्षेत्र उत्पादन और सेवाओं के आदान-प्रदान में शामिल है। उदाहरण के लिए— परिवहन संचार और इस तरह की अन्य सेवाएं।

विभिन्न वित्तीय क्षेत्रों में डिजिटलीकरण अर्थशास्त्र का एक क्षेत्र है जो अध्ययन करता है कि डिजिटलीकरण बाजारों को कैसे प्रभावित करते हैं और अर्थशास्त्र का अध्ययन करने के लिए डिजिटल डेटा का उपयोग कैसे किया जाता है।

डिजिटलीकरण तेजी से बाजारों में अपने पाँव पसार रहा है। किसी भी वस्तु का वास्तविक मूल्य आज ग्राहक इंटरनेट पर तुरन्त खोज कर सचेत हो जाता है।⁽²⁾

दुनिया के सभी देशों में 2000–2015 तक एक पैन्ल डेटा का विश्लेषण किया गया, जिसमें माल, सेवा लोग और डिजिटल प्रवाह शामिल थे। इसमें पाया गया कि डिजिटल प्रवाह में 10 प्रतिशत की वृद्धि से देश की जी0डी0पी0 0.2 प्रतिशत बढ़ जाती है। यद्यपि सामान और सेवाओं के

प्रवाह के लिए लोच क्रमशः 1.15 और 0.7 से अधिक है, उम्मीद यह है कि आने वाले वर्षों में डिजिटल प्रवाह का योगदान बढ़ेगा।⁽³⁾

डिजिटल प्रौद्योगिकी के उपयोग के लिए उच्च क्रम वाले संज्ञानात्मक, सामाजिक, भावात्मक और तकनीकी कौशल की आवश्यकता है। 2016 की 'विश्व विकास रिपोर्ट'⁽⁴⁾ के अनुसार कौशल की यह बहुलता हमेशा महत्वपूर्ण रही है, लेकिन अब यह अधिक आवश्यक हो गया है।

आज भारत डिजिटल इनोवेशन के क्षेत्र में बहुत आगे बढ़ गया है। दुनिया भर की फिनटेक कंपनियाँ आज भारत आने की लालायित हैं क्योंकि भारत कारोबार के लिए दुनिया की सबसे बेहतर जगह है।

वर्षों पहले फिनटेक को बैंक एंड डेटा सेंटर प्रोसेसिंग प्लेटफॉर्म के रूप में माना जाता था लेकिन अब इसमें बैंकिंग और निवेश, परिसंपत्ति प्रबंधन और बीमा, सुरक्षा प्रोटोकॉल के साथ ही पैसे को भी परिवर्तित कर दिया है जैसे बिटकॉइन जैसी क्रिप्टोकॉसी।

आज पारंपरिक वित्तीय सेवाओं और विभिन्न कम्पनियों और वित्तीय पहलुओं के प्रबंधन में आधुनिक तकनीक का कार्यान्वयन हो रहा है।

पहले के समय में बैंक से पैसा निकालने के लिए रजिस्टर बनाने पड़ते थे जिसमें काफी समय भी लगता था लेकिन अब फिनटेक के आविर्भाव के बाद से बैंकों का लेन-देन बहुत आसान हो गया है। हर चीज का लेखा-जोखा बस एक क्लिक पर सामने आ जाता है, बैंकों के कार्य में इसी कारण से पारदर्शिता बहुत बढ़ गयी है।

पेटीएम, मोबाइल वॉलेट जैसी अनेकों सुविधाओं ने आज के उपभोक्ता को जागरूक के साथ-साथ तकनीकी प्रेमी भी बना दिया है। आज से कुछ वर्षों पूर्व जबकि व्यक्ति जेब में पैसे रख कर निकलता था, आज स्वयं को कितना सुरक्षित महसूस करता है क्योंकि आज उसे टैक्सी का किराया या रेस्टोरेन्ट के बिल का भुगतान पेटीएम से करना है इस क्रान्ति ने एक प्रकार से अपने पास नकद रखने के जोखिम को खत्म किया

है। इन फिनटेक कम्पनियों की मदद से ही बैंक अपनी मोबाइल वॉलेट, सर्विस प्रारम्भ कर पा रहे हैं। ये कंपनियाँ देश के कोने-कोने में अपनी बैंकिंग सुविधाएं पहुँचा रही हैं। उदाहरण के तौर पर यूपी0आई0 या भीम एप जो कि वित्तीय तकनीक का ही एक हिस्सा है पैसा भेजने की समस्या को तुरन्त हल कर देता है।

ये फिनटेक स्टार्ट-अप बैंकों के लिए पेमेंट, कैश ट्रांसफर जैसी सर्विसेज में काफी मददगार साबित हो रहे हैं। फिनटेक प्रदाता अब बचत, उधार बीमा और अन्य वित्तीय उत्पादों तथा सलाहकार सेवाओं की पेशकश प्रारम्भ कर रहे हैं।

केपीएमजी की रिपोर्ट के अनुसार इस समय देश में फिनटेक सेक्टर का कारोबार 33 अरब डॉलर का है जो 2020 तक 73 अरब डॉलर तक पहुँच सकता है और लगभग 79 प्रतिशत सीईओ 2019 में भारतीय अर्थव्यवस्था के लिए विकास की संभावनाएं देख रहे हैं।⁽⁶⁾

व्यापार की उन्नति में डिजिटलाइजेशन का महत्व

आज की इस गलाकाट प्रतियोगिता के दौर में अपने व्यापार को एक ठोस ज़मीन प्रदान करने के लिए डिजिटलाइजेशन महत्वपूर्ण हो गया है। आज के वैश्वीकरण के युग में जबकि बाजारवाद चारों ओर तेजी से फैल रहा है, व्यापार का रूप पल प्रतिपल बदल रहा है और साथ ही साथ उपभोक्ता का स्वर भी पल प्रतिपल बदल रहा है। आज उपभोक्ता एक 'पैम्पर्ड बच्चे' की तरह है जो कि विज्ञापनों और इंटरनेट के इस दौर में इतने लुभावने तरीके से आकर्षित किया जाता है कि उसे बिना अतिरिक्त मुनाफे के कुछ समझ ही नहीं आता है।

फिलपकार्ट, अमेज़ॉन, मित्रा, नाइका जैसी अनेकानेक कम्पनियाँ, सामान को बेचने के लिए अनेक ऑफर देती हैं। कभी त्योहारों के साथ आए, लुभावने विज्ञापन कभी नए सामान की बाजार में पैठ बनाने की जद्दोजहद में एक के साथ एक मुफ्त का ऑफर तो कभी पुराने सामान को निकालने के लिए आधे या उससे भी कम दाम का ऑफर उपभोक्ता को

आकर्षित कर रहे हैं। यह समस्त आकर्षण उत्पन्न करने के तरीके कुछ वर्षों तक सीमित थे, परन्तु आज हर वर्ग का व्यक्ति ऑनलाइन खरीदारी करने का इच्छुक है क्योंकि एक तो माल की पूरी जानकारी और उसी से मिलते जुलते सामानों से तुलना या उसी सामान का अन्य कंपनियों क्या मूल्य ले रही है, सबकी जानकारी एक क्लिक पर साथ ही साथ अतिरिक्त एक दो फायदे वह भी उतनी ही कीमत पर उपभोक्ता को क्यों आकर्षित नहीं करेगा?

"In order to take advantage of e-commerce business, there has to be a proper business model as well as other strategies, so that the business is sustainable and provides economic growth."⁽⁶⁾

कुछ वर्षों पूर्व जब विश्व अर्थव्यवस्था सुस्त थी। डिजिटलाइजेशन ने इसे 193 करोड़ डॉलर से आगे बढ़ाया और तकरीबन छह करोड़ से अधिक लोगों के लिए रोजगार उपलब्ध कराया।⁽⁷⁾

व्यापार पर डिजिटलाइजेशन का प्रभाव

ई-मार्केट रिपोर्ट में बताया गया है— "मोबाइल फोन और टैबलेट, पी0सी0 का विकल्प बनने के बाद व्यापार आगे बढ़ा है, क्योंकि ये ग्राहकों की खरीदारी की पसन्द को प्रभावित कर रहे हैं।"⁽⁸⁾

डिजिटल मार्केटिंग एक विस्तृत शब्द है जिसमें इंटरनेट मार्केटिंग, सोशल मीडिया मार्केटिंग, सर्च इंजन मार्केटिंग शामिल है। आज व्यक्ति अत्यधिक सामाजिक हो रहा है तथा वह पल प्रतिपल सामाजिक नेटवर्क से जुड़े रहकर ही आगे बढ़ना चाहता है। इसी का फायदा आज कंपनियों व्यापार को आगे बढ़ाने के लिए कर रही है। किसी भी उत्पाद को बाजार में उतारने से पूर्व ही उसका ऑनलाइन सर्वेक्षण करके उसमें उपस्थित कमियों को दूर करके उत्पाद को पूरी मजबूती के साथ बाजार में उतारती है ताकि उत्पाद के फेल होने की सम्भावना कम से कम हो। साथ ही साथ, उपभोक्ता भी किसी उत्पाद की दूसरे उत्पाद से तुलना करके अपने लिए उचित मूल्य पर उचित वस्तु खरीदता है।

कैनी (1998) ने अपनी पुस्तक 'इनोवेशन ऑफ द न्यू टेक्नालॉजी' में कहा कि— इंटरनेट की मार्केटिंग, मार्केटर्स के लिए गेट खोलने में मदद करती है।⁽⁹⁾

'कृचुक और कृष्णमूर्ति (2007) के अध्ययन से पता चला कि इंटरनेट और आभासी समुदाय उपभोक्ताओं की मदद करते हैं।⁽¹⁰⁾

की (2008) गोड्स एवं सिल्वा (2012) ने अध्ययन में बताया कि 90 प्रतिशत उपभोक्ता, अन्य उपभोक्ताओं की ऑनलाइन समीक्षा पढ़ते हैं।⁽¹¹⁾

Teo सर्वेक्षण 2005 जो सिंगापुर में फर्मों द्वारा आयोजित किया गया था, उसके निष्कर्षों से पता चला कि डिजिटल मार्केटिंग प्रभावी है।⁽¹²⁾

गीत (2001) लिखते हैं कि 'ऑनलाइन विज्ञापन' शक्तिशाली विपणन उपकरण है जिसका उपयोग ब्रांड छवि बनाने के लिए किया जाता है।⁽¹³⁾

भारत का कदम विमुद्रिकरण की ओर

कैशलेस इकोनॉमी आज के समय में तेजी से बढ़ता एक सिस्टम है, जिसमें समस्त लेन-देन, क्रेडिट कार्ड, डेबिट कार्ड या किसी अन्य प्रकार के डिजिटल मोड में किया जाता है एवं जो लेन-देन के मामले में होने वाले भ्रष्टाचार को रोकने में कारगर है इसी कारण यह जल्द ही सबसे पसंदीदा विकल्प बन रहा है। लोग आसानी से अपने बिलों का भुगतान ऑनलाइन, स्मार्टफोन या लैपटॉप का प्रयोग करके कर सकते हैं।

मैनुअल लेखांकन कार्य कम होने के कारण धन और समय की बचत होती है सिक्को और कागज की मुद्रा का उत्पादन एक महंगा प्रयास है और अधिकांश कागज मुद्राओं का जीवन काल लगभग 6 वर्ष है। इसलिए इलेक्ट्रॉनिक ट्रांजेक्शन के कारण उत्पादन की लागत कम हो जाती है सरकार कैशलेस लेनदेन से आने वाले डेटा का उपयोग करके अपनी नीतियों में सुधार एवं विश्लेषण कर सकती है तथा रिकार्ड किया

लेन-देन के बाद, यह नागरिकों को अपने बजट की अधिक कुशलता से परिष्कृत करने में मदद कर सकता है।⁽¹⁴⁾

कैशलेस भुगतान कई जोखिमों को समाप्त करता है, जिसमें नकली धन, कर्मचारियों द्वारा नकदी की चोरी आदि सम्मिलित है।⁽¹⁵⁾

बैंक नोट्स में बैट्टीरिया की संरचना पर एक अध्ययन के अनुसार— नकदी बीमारी पैदा करने वाले बैट्टीरिया के लिए एक अच्छा घर प्रदान करती है।⁽¹⁶⁾

निष्कर्ष यही निकलता है कि कैशलेस होने से व्यवसायों, सरकार तथा साथ ही साथ आम जनता को लाभ मिलने की संभावना बढ़ जाती है।

डिजिटलाइजेशन में प्रशिक्षण की आवश्यकता

“एक संगठन के लिए बड़ा क्षण वह है जब उन्होंने इस तथ्य को स्वीकार कर लिया कि डिजिटल परिवर्तन एक तकनीकी समस्या नहीं है बल्कि एक सांस्कृतिक परिवर्तन है।”⁽¹⁷⁾

आंतरिक विकास और निरन्तर सीखने की ललक आज के युवा में तेजी से पाँव पसार रही है, वो कम्पनियाँ जहाँ विकास के अवसर ज्यादा दिखते हैं और जो नयी-नयी तकनीकों का प्रयोग कर रही होती हैं युवाओं को आकर्षित करती हैं।

"30% of marketers claim that a lack of training in new skill is a top barrier to success."⁽¹⁸⁾

आज उन्नत होती डिजिटल तकनीकी लगभग प्रत्येक व्यक्ति को अपने व्यापार को आधुनिक तकनीकों द्वारा बढ़ाने को लालायित कर रही है, इसके लिए वह विभिन्न तरीकों से डिजिटलाइजेशन की प्रक्रिया को सीखने का इच्छुक है।

एक अध्ययन में यह पाया गया कि जब व्यवसायों ने 10 प्रतिशत अधिक प्रशिक्षण अवसर प्रदान किये, तो उन्हें उत्पादकता में 8.6 प्रतिशत का लाभ हुआ।⁽¹⁹⁾

अतः आज यह समय की माँग बन गयी है कि स्वयं को डिजिटल संस्कृति और डिजिटल प्रौद्योगिकी के साथ प्रशिक्षित किया जाय और बेहतर परिणामों के ओर अग्रसर हुआ जाय।

डिजिटल तकनीक ने हाल के दशकों में लोगों के जीवन के लगभग हर पहलू में क्रांति ला दी है। कार्यालय का काम, खरीदारी संगीत, फिल्में, टेलीविज़न, फोटोग्राफी, यात्रा परिवहन और लंबी दूरी के संचार कुछ ऐसे क्षेत्र हैं जो पूर्णतः रूपांतरित हो चुके हैं परन्तु डिजिटल तकनीक के कुछ नुकसान भी हैं, जो जीवन के कुछ क्षेत्रों को प्रभावित कर रहे हैं।

“डिजिटल तकनीक ने आधुनिक जीवन को लैपटॉप, टैबलेट और स्मार्टफोन जैसे गैजेट्स के साथ बदल दिया है जो अब सामान्य रूप से स्वामित्व में हैं..... लाभ लाने के साथ-साथ डिजिटल तकनीक ने कई डाउनसाइड भी खरीदे हैं।”⁽²⁰⁾

कुछ मनोवैज्ञानिक अध्ययनों से पता चलता है कि डिजिटल दुनिया में मानसिक बीमारी का खतरा बढ़ रहा है। उदाहरण के लिए सोशल मीडिया पर निर्भरता, ऑनलाइन बदमाशी और तनाव आदि शामिल हैं?

डिजिटल प्रौद्योगिकी के कुछ डाउनसाइड्स इस प्रकार हैं—

डेटा सुरक्षा तात्पर्य यह कि बड़ी में डिजिटल तकनीक में डेटा एकत्र एवं संग्रहीत किया जाता है, फिर उसे अपराधिक तत्वों के पास जाने से बचाना आवश्यक है।

अमेरिकन कॉलेजों की एसोसिएशन रिपोर्ट के अनुसार—

“हम अपने द्वारा अविष्कृत तकनीक को समझने में असमर्थ लोग बन गए हैं।”⁽²¹⁾

व्यक्ति में वास्तविक जीवन सम्पर्क के बजाय डिजिटल उपकरणों के माध्यम से सामाजिकरण और संवाद करने की प्रवृत्ति बढ़ गयी है।

“तकनीक बहुत मजेदार है लेकिन हम अपनी तकनीक में डूब सकते हैं। जानकारी का कोहरा ज्ञान को भगा सकता है।”⁽²²⁾

निष्कर्ष

निष्कर्षतः कहा जा सकता है कि डिजिटलाइजेशन जहाँ एक ओर समाज को अग्रसर करने की सीढ़ी है वहीं दूसरी ओर यह समाजीकरण को खोखला बना रहा है। लोग ऑनलाइन खरीददारी करते हैं, बैंकिंग ऑनलाइन करते हैं, बिलों का भुगतान ऑनलाइन कर रहे हैं।

अपनी व्यक्तिगत जानकारियाँ टेलीफोन नम्बर सब कुछ फोन पर संचयित रहता है, गैजेट चोरी हो जाए खो जाए या खराब हो जाए तो व्यक्ति के सम्मुख बड़ी समस्या उत्पन्न हो जाती है।

मैक्स फ्रिस्क का यह कथन— “प्रौद्योगिकी दुनिया को व्यवस्थित करने का एक ऐसा साधन है, जिसका हमें अनुभव नहीं करना है।”⁽²³⁾

काफी कुछ आज चरितार्थ हो रहा है। स्वयं की उन्नति के लिए डिजिटलाइजेशन आवश्यक है परन्तु स्वयं मशीन बनना किस हद तक सही है इसका चिंतन आज हर व्यक्ति की आवश्यकता बन गयी है।

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Ethical and Academic Issues Related to Information: A Study

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Introduction and Meaning

Information is a basic resource and input for all kind of development. There are various steps in information cycle, such as: need, search, collect, process, evaluate, use, disseminate and feedback. Intellectual property, copyright, plagiarism and citation issues are the core issues related to information. In this article plagiarism is discussed in detail. How to avoid plagiarism is also discussed with examples. Quote, paraphrase, summarizing, survey/experiment based studies, read and write, etc are the techniques to avoid plagiarism. Plagiarism is an offence and it is also related to moral and ethical issues. Authors should be aware of cyber plagiarism also. Keywords: Information, Plagiarism, Ethical and Academic issues. In the present world, information has become a major resource by itself and source to other resources. As an individual or community, we cannot live without information. In every step,

irrespective of education, social or economic background, everyone needs information, which one applies to realize his goals. In the present environment it is not easy to use information, because it is a resource and is protected by various laws with various restrictions on its use. Library and information science (LIS) professionals should be aware of the academic and ethical issues related to use of information. As professionals if we are providing information services, we must be acquainted with the consequences of misuse or ill-use of information in various contexts. In today's world human interests are so intertwined that nobody can claim that he does not need information or he does not want to become information literate. Information literate persons can feel, search, collect, analyze, synthesize and use information effectively and efficiently. In the present ever-changing electronic environment, right information at right time can save a lot of energy, time and efforts. In the learning society information is an Intellectual Asset (IA). Proper knowledge about this IA can make and mar in the real life situation.

Various points of Information Use Cycle

Information is accepted as a source of all resources, so it is easy to grasp the importance of information. Everyone is involved in various activities linked to information world. Getting information is a cyclical process, which can be understood with the following diagram. The diagram given below describes eight points of information use cycle. These all steps are co-related and interdependent.



Need

People need information for various purposes and want to satisfy need in various ways.

Search

Next, people search information in various available media, such as: print, non print, electronic etc. People select resources as per their convenience and accessibility. People search needed information on their own or with the help of various agencies or others. This search process varies person to person, place to place or society to society. Search process is also influenced by age, gender, socio-economic background of the information seeker and other various factors. In the present electronic environment wi-fi connectivity is preferred. LIS professionals must keep in mind, the search process employed by people is not static; it is always changing.

Collect

After search, people collect needed information. In the huge amount of information, it is very difficult to collect the right information, in right form and in right time. In the present world there is a flood of disinformation and misinformation. So how to collect right information is a challenge before people or professionals.

Process

Collected information is processed by people. This process is completed by user. They may also take help of experts to decide its genuineness and completeness. Information may be processed alphabetically, chronologically and may be classified in other ways depending on the need of the user.

Evaluate

At this step user assesses information critically. Evaluation needs scientific thinking. It is a difficult step. Inductive and deductive logic may be applied for evaluation purpose. Causation theory may be helpful for the evaluation purpose. Objectivity must be maintained

while evaluating information as it is not easy to maintain objectivity. Every person has his beliefs and background knowledge. Evaluation process filters information. Filtered information is useful to apply to solve the problems faced by the people or society.

Use

At next step people use information to satisfy their need. Information is used in various contexts to resolve problems, big or small. Day to day life is very much dependent on the use of information.

Disseminate

After using information, people disseminate information by various means. People share information through various ways, such as: symbols, gestures, spoken words, formally written or in other ways. People disseminate information for various regions.

Feedback

As a person we always receive inputs from various sources regarding information. These inputs further creates some scope to feel need of information again thus the process of information never ends.

Key Issues Related to Information

There are various issues related to the information. These are:

1. Intellectual Property
2. Copyright
3. Citation Issues
4. Plagiarism

Intellectual Property

Intellectual property is “created by the mind or intellect.” It may include: articles, books, poems, paintings, inventions, designs, images, logos, names, etc.

Types of Intellectual Property Rights (IPRs)

There are various types of IPRs, such as: copyright, patents, trademarks, design, integrated circuit layout design, industrial design, geographical indications, etc.

Citation Issues

Citation Issues incorporates various issues, such as: bibliography, footnotes, appendix and index.

In this article only plagiarism issue is discussed in detail.

What is Plagiarism?

According to Harrod's glossary plagiarism is "using another person's work and publishing it as one's own without payment or acknowledgement."

Chris Hart (2005) says that plagiarism is "the act of knowingly using another person's work and passing it off as your own." Both definitions clearly elaborate the act of plagiarism.

As we are aware, there is flood of information, especially in the electronic environment. So researcher must be aware of 'who said what' before writing an article or any academic work. Proper review of literature must be done before writing any academic assignment. Do not use others words and ideas as your own. Always acknowledge the authors. If you are taking others words, put quotation marks and give complete bibliographical detail. Taking the words without quotation/ citation is a violation of copyright act. It is also to be noted that you cannot change or revise others ideas and present as your own.

How to avoid plagiarism?

Plagiarism must be avoided in academic setup. Academic community can minimize this problem by adopting and applying following points.

Quote

For quoting author has to copy exact words, whether written or spoken, it is acceptable to use other's words. If sentences are used verbatim, quotation marks must be used. Make citation with full bibliographical details. Use brackets [()] if you are adding your own

words in quoted material. It is needed because sometime it is necessary to use definition or statements or facts in a particular context.

Paraphrase

Wilson says “paraphrasing means rephrasing the words of someone else. It is acceptable as long as the meaning is not changed and originator is credited properly with a citation.” In the paraphrasing authors use different words and rearrange the words with minor changes. Credit must be given to the original author.

Summarize

Summarizing means condensing the thoughts of someone else in a paragraph or a sentence. One can find information or an idea elaborated in many pages, these ideas can be summarized in a line or paragraph. This is acceptable for taking others' ideas by giving due credit to original authors.

Reading and Taking Notes

Before writing, must go through the relevant literature. While taking notes others work [“OW”] should be marked as OW or other symbol can be put in double inverted commas with citation. If you have written or developed your own, write –MINE (Wilson). This exercise helps you to avoid plagiarism.

Survey/ Experimental Based Studies

There is no scope of plagiarism if researcher opts for a survey based study in social sciences. Survey based studies provide primary data. Researcher can collect primary data by using questionnaire, observation, interview etc. techniques. Experimental studies will be very effective to avoid plagiarism in natural sciences. Researcher can expand the idea and apply knowledge in another situation also.

Read and Write

As a researcher, you are expected to develop original ideas or at least new interpretation of old established facts and principles. To achieve this purpose, you have to read the literature and then put

away all the material, and write your article based on your memory and experience. Consult the original sources and prepare an exhaustive list of references.

Use of Plagiarism Detection Software

There are various plagiarism detection software, available free of cost or on payment basis, such as: turnitin.com, www.copyscape.com, <http://www.ithenticate.com/> etc. In India various academic organizations (JNU, MDI, etc.) are using these software to detect plagiarism. Students have to submit a certificate to this effect before submitting any academic work (dissertation, thesis or article). For Indian languages, this kind of plagiarism detection software should be developed to avoid plagiarism.

Conclusion

Plagiarism is related with moral and ethical issues. Awareness is the solution to face the challenge. Authors and students should be aware of cyber plagiarism also. As we know that literary theft is a criminal offense, so academicians must be aware of this issue. There is a scarcity of awareness regarding avoiding plagiarism in India. Academic institutions must pay attention on this issue. Only awareness is the solution of the problem.

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A Study of Growth and Usage of Smart Phones

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Introduction

A powerful force drives the world towards a converging commonality and that force is technology (Levitt, 1992). From the beginning of the human era, technology has been one of the most essential and most important factors for the development of mankind (Coombs et al., 1987). Research and development (R & D) in the form of technological development, in present world, has a great impact on almost all the sectors. Emergence of information technology (IT) as a result of technological development has attracted a considerable attention in various sectors over the recent years, be it any type of company such as production sector, medical sector, automobile sector, insurance sector, education sector, banking sector and so on. The fast growing technology has developed electronic device such as smart phone that function do not limited only for messaging but this device allows long distance communication. (Rambitan, 2015). The smart phone era began in 1993 with the introduction of Simon smart phone from IBM (Sarwar & Soomro 2013).

Growth of Smart Phones

The table below shows the top 50 countries taking into consideration, their ranks in population and Smart phone users in 2018.

Table No. 1: Ranking of Top 50 Countries as Per Number of Smart phone Users

Rank	Country	Population	Smart phone Users
1.	China	1,415,046,000	782,848,000
2.	India	1,354,052,000	374,893,000
3.	United State	326,767,000	251,688,000
4.	Russian Federation	143,965,000	91,865,000
5.	Brazil	210,868,000	87,172,000
6.	Indonesia	266,795,000	73,155,000
7.	Japan	127,185,000	70,327,000
8.	Germany	82,293,000	64,830,000
9.	Mexico	130,759,000	59,597,000
10.	United Kingdom	66,574,000	54,713,000
11.	France	65,233,000	49,598,000
12.	Philippines	106,512,000	47,858,000
13.	Vietnam	96,491,000	36,378,000
14.	South Korea	51,164,000	34,562,000

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15.	Italy	59,291,000	34,394,000
16.	Spain	46,397,000	33,631,000
17.	Turkey	81,917,000	31,060,000
18.	Thailand	69,183,000	30,217,000
19.	Iran	82,012,000	28,748,000
20.	Egypt	99,376,000	27,852,000
21.	Pakistan	200,814,000	27,730,000
22.	Bangladesh	166,368,000	26,827,000
23.	Canada	36,954,000	26,635,000
24.	Nigeria	195,875,000	25,552,000
25.	Poland	38,105,000	24,371,000
26.	Ukraine	44,009,000	21,276,000
27.	Argentina	44,689,000	20,979,000
28.	South Africa	57,398,000	20,371,000
29.	Colombia	494,650,000	19,669,000
30.	Malaysia	32,042,000	18,437,000
31.	Australia	24,772,000	16,999,000
32.	Saudi Arabia	33,554,000	15,449,000
33.	Taiwan	23,694,000	14,223,000
34.	Morocco	36,192,000	13,707,000
35.	Netherlands	17,084,000	13,547,000

36.	Venezuela	32,381,000	13,224,000
37.	Algeria	42,008,000	12,204,000
38.	Ethiopia	107,535,000	12,014,000
39.	Kazakhstan	18,404,000	11,938,000
40.	Myanmar	53,856,000	11,722,000
41.	Kenya	50,951,000	10,668,000
42.	Romania	19,581,000	10,538,000
43.	Peru	32,552,000	10,462,000
44.	Uzbekistan	32,365,000	10,142,000
45.	Belgium	11,499,000	8,813,000
46.	Sudan	41,512,000	8,176,000
47.	Chile	18,197,000	8,049,000
48.	Sweden	9,983,000	7,864,000
49.	Ghana	29,464,000	7,060,000
50.	Uganda	44,271,000	6,922,000

Source: New Zoo's Global Mobile Market Report, September 2018.

Table No. 1 depicts that there are top 50 countries with the largest number of smart phone users in which China has been ranked 1st among top 50 countries with the 782,848,000 number of users in September, 2018 and it is known as the most populated country with the estimate population of 1,415,046,000. India has been ranked 2nd among the top 50 countries with 374,843,000 users. It has seen the tremendous increase in the number of smart phone users. The developed countries like United States has been ranked at 3rd position with 312,322,257 number of smart phone users as on

September 2018. Various countries had been ranked at various positions in regard to number of Smart phone users. Among these, Uganda has the least number of smart phone users with least number of estimated populations of 44,271,000.

Review of Literature

Sarwar and Soomro (2013) in their study titled “Impact of Using Smart Phone’s on Society” discussed the impact of using smart phone on various aspects of life the impact of using smart phone on culture, social life, technology landscape and other various aspects of modern society. This study also threw some light on the impact of using smart phones Health, Business, Education, human psychology and social life. The main objective of this study was to understand all the positive and negative aspects of smart phone on society.

Lee, Chang, Lin and Cheng (2014) in their study titled “The Dark Side of Smart phone Usage: Psychological Traits, Compulsive Behavior and Techno stress” discussed that Smart phones have become necessities in people’ lives. The study investigated the dark side of the smart phone trend. They examined the link between psychological traits and the compulsive behaviors of smart phone users. They conducted an empirical study consisting of 325 participants and compared Structural Equation Modeling with competing models.

Suryanarayana (2015) in his study titled “Positive and Negative Effects of Mobile Phones on Student Career” discussed about the pro and cons of using smart phone on student life. Researcher explained and discussed about the smart phone’s features and their positive effects on human life and negative effects which may influence the life of students badly. The aim of the study was to discuss impact of using Smart phone.

Gupta (2015) in his study titled “Impacts of Smart phone in Our Life” threw light on the multidisciplinary impacts and negotiable impacts of smart phone. The Study explored about the behavior of

students due to the continuous chatting and limitless usage of Smart phone.

Pathak and Viadya (2016) in their study titled “Mobile Phone Usage among Youth” discussed about the usage of Smart phone/mobile by student for various purposes such as communication via Smart phone, sending text messages, for playing games, for calling, for social networking. Researchers also threw some light on its negative effects as it can distract attention of driver visually physically and cognitively. The objective of this research was to study the mobile phone use among college going youth in pune city. Another objective was to study gender differences in mobile phone use among college student in pune city. On the basis of obtained results by researchers found that majority of the college students using smart phones. Gender differences were not observed in time of usage of mobile phone and data usage.

Suhag, Larik, Mangi, Khan, Abbasi and Madiha (2016) in their study titled “Impact of Excessive Mobile Phone Usage on Human” discussed about the harmful effect of radiation on human. This study aimed to make awareness among the individual to avoid employment of such devices that is connected with the onset of draining disease like male infertility, brain tumor, non- cancerous tumor, Ear Hearing factions.

Parasuraman (2017) in their study titled “Smart phone Usage and Increased Risk of Mobile Phone Addiction” discussed about habit of smart phone usage among the participants. This study aimed to study the mobile phone addition behaviors awareness on electromagnetic radiation (EMR) among a sample of Malaysian population. This online study was conducted B/W December 2015 and 2016 .The study instruments comprised eight segments namely, informed consent form, demographic details, habituation, mobile phone fact and IMR detail. The study participants were aware about mobile radiation hazards and many of them were extremely dependent on smart phone.

Nath (2018) in his study titled “Comprehensive Study on Negative Effects of Mobile Phone/Smart Phone on Human Health” discussed about the problems related to lifestyle, posture, focus on study, Disconnection. Researchers have also discussed about the diseases like cancer and other tumors, damage to fertility and reproduction, geotaxis effects damage to other biological processes and contribution to the development of Insomnia.

Kaur et.al. (2018) in their study titled “Impact of Smart phone: A Review of Positive and Negative Effects on Students” discussed the use of smart phone by students for various purpose to accomplish their various daily task.

Research Methodology

Both primary and secondary data has been used for accomplishment of objectives. Primary data was collected by sending self structured online questionnaires to 250 respondents. Within the timeframe, 200 respondents sent back the completed questionnaires. Hence, the response rate was 80%. The responses were analyzed by using SPSS software. Secondary data was collected through journals and internet websites. For analysis of data ANOVA technique has been applied. ANOVA is used to compare differences of means among more than 2 groups.

Research Objectives

1. To analyze the purpose of using smart phones in relation to their demographic variables.
2. To study the negative effects of using smart phone.
3. To analyze the problems faced by Smart phone users.

Null Hypotheses

1. There is no significant relationship between age and purpose of using Smart phone.
2. There is no significant relationship between gender and purpose of using Smart phone.
3. There is no significant relationship between marital status and purpose of using smart phone.

4. There is no significant relationship between qualification and purpose of using smart phone.
5. There is no significant relationship between occupation and purpose of using smart phone.
6. There is no significant relationship between income and purpose of using smart phones.
7. There is no significant relationship between age and spelling mistakes due to using smart phone.

Data Analysis

The demographic variables of the respondents such as gender, age groups, marital status, educational qualification and occupation are taken into consideration which allows to measure the vibrant of respondents.

Analysis of Association between Age and Purpose of Using Smart Phone

In this section, ANOVA has been applied between age and purpose of using smart phone.

Table No. 2 ANOVA between Age and Purpose of Using Smart phone

	Sum of Squares	df	Mean Square	F	Sig
Between groups	12.918	7			
Within groups	410.262	192	1.845	.864	.536
Total	423	199	2.137		

The result of ANOVA (Table No.2) shows that $F=0.864$, $P > 0.05$. It signifies that statistically there is no significant relationship between age and purpose of using Smart phone.

Analysis of Association between Gender and Purpose of Using Smart Phone

Table No. 3 ANOVA between Gender and Purpose of Using Smart phones

	Sum of Squares	df	Mean Square	F	Sig
Between groups	4.199	7	.600	2.569	.015
Within groups	44.821	192	.233		
Total	49.020	199			

The result of ANOVA (Table No.3) shows that $F=2.569$, where $P<0.05$. It signifies that statistically there is significant relationship between gender and purpose of using Smart phone.

Analysis of Association between Marital Status and Purpose of Using Smart Phone

Table No. 4 ANOVA between Marital status and Purpose of Using Smart Phones

	Sum of Squares	df	Mean Square	F	Sig
Between groups	1.126	7	.161	1.489	.173
Within groups	20.749	192	.108		
Total	21.875	199			

The result of ANOVA (Table No.4) shows that $F=1.489$, where $P >0.05$. It signifies that statistically there is no significant

relationship between marital status and purpose of using Smart phone.

Analysis of Association between Qualification and purpose of Using Smart Phone

Table No. 5 ANOVA between Qualification and Purpose of Using Smart phone

	Sum of Squares	df	Mean Square	F	Sig
Between groups	10.776	7	1.539	.918	.494
Within groups	322.004	192	1.677		
Total	332.780	199			

The result of ANOVA (Table No. 5) shows that $F=.918$, where $P>0.05$. It signifies that statistically there is no significant relationship between qualification and purpose of using Smart phone.

Analysis of association between Occupation and purpose of Using Smart Phone

Table No. 6 ANOVA between Occupation and Purpose of Using Smart phone

	Sum of Squares	df	Mean Square	F	Sig
Between groups	12.688	7	.098	2.006	.056
Within groups	296.532	192	1.544		
Total	318.220	199			

The result of ANOVA (Table No.6) shows that $F=2.006$, where $P>0.05$. It signifies that statistically there is no significant relationship between Occupation and purpose of using Smart phone.

Analysis of Association between Income and Purpose of Using Smart Phone

Table No. 7 ANOVA between Income and Purpose of Using Smart Phones

	Sum of Squares	df	Mean Square	F	Sig
Between groups	2.795	7	.399	.601	.755
Within groups	127.585	192	.665		
Total	130.380	199			

The result of ANOVA (Table No.7) shows that $F=.601$, where $P>0.05$. It signifies that statistically there is no significant relationship between Income per year and purpose of using Smart phone.

Analysis of the Negative Effect of Using Smart phone on Writing Skills

Most of the students use mobile internet for entertainment only. As a result the mobile phone usage has a negative impact on the writing skills of the students because they do not use standard language in text messages.

Table No. 8 Use of Smart Phone Affects the Writing Skills Negatively

Response Age	Strongly Disagreed	Disagreed	Nutral	Agreed	Strongly Agreed	Total	%Age
16-18	14	15	19	13	18	79	39.5%
19-20	13	9	12	14	5	53	26.5%
21-22	7	3	11	7	4	32	16%
23-24	4	0	5	0	4	13	6.5%
25-26	1	1	3	5	3	13	6.5%
Above 26	2	2	2	2	2	10	5%
Total	41	30	52	41	36	200	
%age	20.5%	15%	26%	20.5%	18%		100%

Table No.8 shows that 20.5% of respondents of different age groups is strongly disagreed upon the statement that use of smart phones affects writing skills (spelling mistake) negatively. On the contrary 18% respondents of different age groups strongly agree upon the statement that use of mobile phone affects writing skills (spelling mistake) negatively. 26% of total respondents select neutral upon the statement. 15% are disagreeing and 20.5% are agreeing upon the statement that use of Smart phone affects the writing skills negatively.

Table No. 9 ANOVA between Age and Use of Smart Phones Affects Writing Skills Negatively (Spelling Mistake)

Age	Sum of Squares	df	Mean Square	F	Sig
Between groups	4.078	4	1.019	.474	.755
Within groups	419.102	195			
Total	423.180	199	2.149		

The result of ANOVA (Table No.9) shows that $F=.474$, $P=.755$ where $P>0.05$. It signifies that statistically there is no significant relationship between age and spelling mistakes.

Analysis of Problems Faced by Smart Phone Users

There are various kinds of problems or discomforts including eye pain, ear pain, body pain & experience of fatigue while using Smart phone in access. Following tables analysis the problems faced by users while using Smart phone continuously.

Table No.10: Experience of Discomfort or Pain in Any Body Part While Using Smart Phone.

Discomfort or Pain	Frequency	Percent	Valid Percent	Cumulative Percent
YES	89	44.5	44.5	44.5
NO	111	55.5	55.5	100.0
TOTAL	200	100.0	100.0	

Table No. 10 shows that 44.5% of respondents out of total respondents experience discomfort or pain in any body part while using smart phones. And 55.5% of respondents do not experience any kind of discomfort or pain in any body part while using smart phone.

Table No. 11 Experience of Fatigue by Using Smart Phone

Fatigue	Frequency	Percent	Valid Percent	Cumulative Percent
YES	93	46.5	46.5	46.5
NO	107	53.5	53.5	100.0
TOTAL	200	100.0	100.0	

Table No.11 shows that 46.5% of respondents out of total respondents feel fatigue while using smart phones. And 53.5% of respondents do not feel or experience any kind of fatigue while using smart phone.

Table No. 12 Experience of Eye Problem by Using Smart phone

Eye Problem	Frequency	Percent	Valid Percent	Cumulative Percent
YES	112	56.0	56.0	56.0
NO	88	44.0	44.0	100.0
TOTAL	200	100.0	100.0	

Table No. 12 shows that 56% of respondents out of total respondents have experienced eye problem while using smart

phones. And 44% of respondents have not experienced any kind of eye pain or problem while using smart phone.

Table No. 13 Experience of Ear Problem by Using Smart Phone

Ear	Frequency	Percent	Valid Percent	Cumulative Percent
YES	52	26.0	26.0	26.0
NO	147	74.0	74.0	100.0
TOTAL	200	100.0	100.0	

Table No.13 shows that 26 % respondents out of total population experience ear problem while using smart phones. 74% of respondents do not suffer any kind of ear problem while using of smart phone.

Findings

The Following are the major findings of the project:

1. There is no significant relationship between age and purpose of using Smart phone.
2. There is significant relationship between gender and purpose of using Smart phone.
3. There is no significant relationship between marital status and purpose of using smart phone.
4. There is no significant relationship between qualification and purpose of using smart phone.
5. There is no significant relationship between occupation and purpose of using smart phone.
6. There is no significant relationship between income and purpose of using smart phones.
7. There is no significant relationship between age and spelling mistakes due to using smart phone.
8. 20.5% of respondents of different age groups strongly disagreed upon the statement that use of smart phones affects the writing skills (spelling mistake). 18% of respondents of different age

groups strongly agreed upon the statement that use of smart phones affects the writing skills (spelling mistake).

9. 44.5% of respondents out of total respondents experience discomfort or pain in any body part while using smart phones. 55.5% of respondents do not experience any kind of discomfort or pain in any body part while using smart phone.
10. 46.5% respondents feel fatigue while using smart phones. 53.5% respondents do not feel or experience any kind of fatigue while using smart phone. 56% respondents experience eye problem while using smart phones. 44% respondents do not experience any kind of eye pain or problem while using smart phone. 26 % respondents out of total population experience ear problem while using smart phones. 74% of respondents do not suffer any kind of ear problem while using of smart phone.

Conclusion

Smart phone become integral part of our life. Carrying a smart phone now a days is not a big deal. It is true that smart phone has a sizable impact on health, society and other aspects of life. The saying “every good thing when abused can be harmful” applies on smart phone also. There are several ways with which we can control and minimize the negative effects of using smart phone. It is important to concentrate on how to stop and avoid smartly the misuse of smart phone rather trying to stop or avoid use to smart phones. We must put some controls on bad habits when using smart phone devices and their accessories such as headsets, and we must reduce as much as possible the time spent while using smart phones. Hence, we can make the best use of smart phones only by focusing and managing it's all other aspects also.

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Role of Educational Institutions in Fostering Startup Ecosystem

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Abstract

A startup ecosystem comprises of many people, where they interact as a system for doing things very quickly, with few resources. Goal of startups is to develop a profitable business model. Young entrepreneurs are ready to take their future in their own hands, and they are rocking the startup ecosystem through their modern, trendy, creative as well as innovative ideas.

Keywords: Startups, Entrepreneurs, Resources, Innovative, Profitable.

Indian Startup Ecosystem

According to the Economic Survey for 2018 – 19 , India has been ranked 3rd in the global startup ecosystem. The Indian startup ecosystem began with software service startups fulfilling Indian software needs and later expanded to exporting software services.

Over the last decade, many Indian startups have developed forward – looking solutions, shattering industries and taking on established people across the globe, still this trend is in continuation.

Indian startup has come in light on its own. Many factors initiated the drive like massive funding, consolidation activities,

evolving technology and a burgeoning domestic market. Startup data was approximately 3000 in 2014 to a projection of more than approximately 11000 by this year i.e. 2020 .

In India, it will surely change the present working pattern of markets.

Objectives of a Startup Ecosystem

1. One of the basic objective of startup ecosystem is to produce and attract entrepreneurial talent and new ideas in growing volume to become business creators.
2. A startup ecosystem acts as business catalyst for value creation.
3. Goal of startup ecosystem is to bring together different parts like- resources, investors, infrastructure, networking, marketing, experts, talent etc. that will help grow a startup.

Development Principles

1. Only those things can be developed which can be understood.
2. Only those things can be improved which can be measured.
3. Only by sharing things, making them visible and available can those become commons.
4. Resources can be dispersed if things are shared and being worked on together.
5. Things which are in shared use can be developed and scaled together.

Need of Startup Ecosystem in India

Startups are the centre of innovation and a great way to enhance creation of employment in the economy.

After China, India is growing towards becoming one of the world's biggest markets. Income of the middle economy as well as rural economy both is on the path of growth.

Some Startup Schemes Launched By Indian Government

1. Startup India Initiative.
2. ASPIRE Scheme.
3. MUDRA Bank.
4. ATAL Innovation Mission.

5. eBiz Portal .
6. Dairy Processing and Infrastructure Development Fund.
7. Multiplier Grants Scheme.
8. Credit Guarantee Scheme For Startups.
9. Software Technology Park Scheme.
10. The Venture Capital Assistance Scheme.
11. Single Point Registration Scheme.

Role of Educational Institutions In Promoting Startup Ecosystem

Entrepreneurship education has been encouraged in India to promote self employment and founding of small and medium enterprises. Institutions have a strong impact on the growth and development of new business. Research and educational organizations play a crucial role in fostering entrepreneurship, especially in the early stages of development. This is source some of the best relevant practice and literature review and helps new companies to grow. Experts from different institutions such as - universities, faculties, institutes could provide a functioning and efficient platform for startup operating.

Conclusion

The government is promoting different- different schemes and programmes to increase the number of people being benefited by these. India seems to move forward towards the era of entrepreneurship. It is expected positively to raise India's level equal to the successful startups as of USA's in the next 10 years.

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Economy is Going Digital in India, The Issues on the go...

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Abstract

Digital India” is an initiative of the Central Government of India to transform India into a global digitized hub to be done by improving digital connectivity and skill enhancement and; various other incentives to make the country digitally empowered. It is not done in a day but the outcome of many innovations and technological advancements to bring digital revolution. The drive behind the concept is to build participative, transparent and responsive system. Digital India is the beginning of digital revolution. It is a dream which is created by the Government of India to ensure that government services are made available to citizens electronically, even in remote areas, by improving online infrastructure and by increasing Internet connectivity. The programme has one mission and one target that is to take nation forward digitally and economically. The initiative will enable people to get engaged in the innovation process which is needed by the

economy to move forward. But to implement this is a great challenge.

Successful implementation is not without hurdles like digital illiteracy, poor infrastructure, low internet speed, lack of coordination among various departments, issue pertaining to taxation etc. These challenges need to be addressed in order to realize the full potential of programme. An attempt has been made in this paper to realize the global as well as domestic challenges which might hinder the successful implementation of the program. It is also to suggest some feasible remedies to deal with the same. There are many roadblocks in the way of its successful implementation like digital illiteracy ,poor infrastructure, low internet speed, lack of coordination among various departments, issue pertaining to taxation etc . It requires a lot of efforts and dedication from all departments of government as well as private sector. If implemented properly, it will open various new opportunities for the citizens of the country.

Keywords: Digital, Digital Economy, Infrastructure, Opportunities, Revolution, Roadblocks Less Cash Society Cashless Economy, Installation Period, Deployment Period

Objective of the Study

1. Study the concept of cash-less and Less-cash society; cashless economy and digital economy.
2. Evaluate the changes in economy in pre-demonetization and also in current scenario.
3. Evaluate the cost –benefit analysis of cashless economy.

Methodology

This study is descriptive in nature and is based on the secondary data. The data is taken from reliable and authentic source i.e. publications of RESERVE BANK OF INDIA, renowned journals and international articles.

Limitation of Study

The study is based on secondary data.

Introduction

Information and communication technologies (ICT), continue to proliferate at incredible speed throughout the world. Digitalization is one of the most fundamental period of transformation we have ever witnessed. Digital India was a flagship programme launched by the Prime Minister of India on 1 July 2015 – with an objective of connecting rural areas with high-speed internet networks and improving digital literacy. Vision of this programme is to transform India into a digitally empowered society and knowledge economy. It is one of the biggest steps by government of India to motivate the citizen of the country and connect Indian economy to knowledge savvy world

Where, India is tech and Internet savvy, our Bharat is far behind. It lacks the basic amenities. While India is talking about bullet trains and hyper-loops, one can still find people earning their livelihood from collecting rags in 'Bharat'. Given such a wide spectrum of disparity, the fact that 90% of our workforce is in the unorganized sector, comes as an accepted reality to Government.

The term 'Digital Economy' was coined in Don Tapscott's 1995 best-seller book The Digital Economy:

Promise and Peril in the Age of Networked Intelligence. The Digital Economy was among the first books to show how the Internet would change the way we did business.

We've had 5 major technology-driven economic cycles, since the onset of the Industrial Revolution, each one lasting roughly 50-60 years.

1. First was the age of machines, factories and canals starting in 1771.
2. Followed by the age of steam, railways, iron and coal, starting in 1829;
3. Next to come was steel, electricity and heavy engineering in 1875;
4. While oil, automobiles, and mass production in 1908;
5. Present ICT-based digital age starting in 1971.

Each economic cycle is composed of two very different periods, each lasting roughly 20 - 30 years.

1. The installation period is the time of creative destruction, when new technologies emerge from the labs into the marketplace, entrepreneurs start many new businesses based on the new technologies, VCs encourage business model experimentation, and the new ventures attract considerable investments and financial speculation. This all leads to a financial bubble, which eventually bursts in spectacular fashion leading to a time of crisis.
2. Deployment period- is a time of economic transformation and institutional re-composition. The now accepted technologies and business paradigms become the norm; industries and infrastructures start getting defined and stable; the production capital drives long-term growth and

expansion by spreading and multiplying the successful business models.

A system in which no physical cash is in circulation is a cashless system. Payments are made through credit and debit cards, bank electronic fund transfers or virtual wallets.

Presenting the Union Budget for 2019-20, the Finance Minister said that 2% tax deducted at source (TDS) will be levied on cash withdrawals exceeding Rs 1 crore in a year from a bank account to discourage the practice of making business payments in cash.

Also, the government has said that businesses with an annual turnover of over Rs 50 crore can offer low-cost digital modes of payments and no charges on Merchant Discount Rate (MDR) will be imposed on them or their customers.

The Reserve Bank of India and banks will absorb these costs from the savings that will accrue to them on account of handling less cash as people move to these digital modes of payment.

The Government's Initiatives for Digitizing the Economy

1. Presumably it is said demonetisation in November 2016 was the first step. At this time of demonetisation, India's cash to GDP ratio was around 12%. After demonetisation, this ratio came down to around 9% of the GDP. But later, it grew at a lower pace but steadily. The latest 2019 figure shows that the ratio presently is around 11% of the GDP.
2. The advocates of the demonetisation hold that if it had not happened, the quick measures to encourage digital transactions like increase in the number of point of sale

machines, introduction of mobile wallets like Paytm and PhonePe would not have had not happened.

3. Before the demonetisation there were approximately 18 trillion rupees in circulation, at the end of that fiscal it was around 13.5 trillion and presently it is 20-21.5 trillion, less by 4.5 trillion. In the year 2013, the value of digital transactions was around 0.7 trillion, it is now 5 times i.e. 3.5 trillion.
4. The government and the private sectors have also started using Big Data techniques for improving the financial services provided by them. Credit offerings are now being based on the transaction history of the consumers.

Benefits

Risk Reduction

The risk of money getting stolen or lost is minimum. Even if the card is stolen or lost, it is easy to block a credit/debit card or a mobile wallet remotely. It is also a safe and easy spending option while travelling.

Cost Reduction

Cashless system brings down the cost associated with printing, storing and transporting of cash.

Convenient

The ease of conducting financial transactions is the biggest motivator to go digital; with the advent of digital modes, one can avoid queue for ATMs, transact 24x7 and save time.

Track Expenditures

Spending done via mobile or computer applications can easily be tracked with a simple click. This allows users to

keep a track of all their expense and manage their budget effectively.

Increase in Tax Base

Reduced cash transaction will increase the tax collection. It will also result in more transparent transactions which in turn lead to a fall in corruption in the economy of the country.

Elimination of Fake Indian Currency Notes

Paper currency makes easier to create FICNs, but once economy goes cashless it will not be possible.

Challenges

A few years have gone since Digital India mission has been announced but it is facing multiple challenges in successful implementation. A few of the challenges are-

1. A high level of digital illiteracy is the biggest challenge in the success of digital India programme. According to ASSOCHAM-Deloitte report on Digital India, November, 2018, around 875 million Indians are still not on internet; creating an awareness among common masses about its benefits is also a great challenge.
2. It is not an easy task to Connect 250000 Gram Panchayats through National Optical Fibre. The biggest challenge is to ensure that each gram panchayat has a point of broad band and is functional.
3. India has a low internet speed. According AKAMAI Q3 2016 report on internet speed ,India is at the 105th position in the world in average internet speed. This rank is the lowest in entire Asia Pacific region .

4. According to ASSOCHOM- Deloitte report, the issues pertaining to taxation and regulatory guidelines have proved to be a road block in realizing the vision of Digital India. It includes lack of clarity in FDI policies have impacted the growth of ecommerce.
5. The biggest challenge faced by Digital India programme is slow and delayed infrastructure development. India's digital infrastructure is inadequate to tackle growth in digital transactions. According to ASSOCHOM-Deloitte report, India needs over 80 lakh hotspots as against the availability of approx 31000 hotspot at present to reach global level.
6. India has 1600 languages and dialects, and non availability of digital services in local languages is a great barrier in digital literacy.
7. Fear of cyber crime and breach of privacy has been deterrent in adoption of digital technologies. According to NASSCOM, India needs 1 million trained cyber security professionals by 2025. The estimated current number is 62000.

Suggestions

No campaign can't be successful on its own. Policy changes are needed to make digital India a reality. Few of the suggestions are –

1. First step is Digital literacy for empowering citizens. People should know how to secure their data online.
2. A massive awareness programme has to be conducted to educate and inform the citizens, especially in rural and

remote areas, about the benefits of internet services to increase the growth of internet usage.

3. The apparent digital divide needs to be addressed.
4. Manufacturing content is not the government's strength. Every mission needs content and service partnerships with telecom companies and other firms so, PPP models must be explored for sustainable development of digital infrastructure.
5. To improve skill in cyber security , we need to introduce cyber security course at graduate level and encourage international certification bodies to introduce various skill based cyber security courses.
6. There is need for effective participation of various departments and demanding commitment and efforts. Various policies in different areas should support this goal.
7. For successful implementation, there must be amendments in various legislations that have for long hindered the growth of technology in India.

Way Forward

1. The number of Smartphone users in the country are increasing manifold, now they are around 30%. As this percentage increases, the number of people using digital payments would also multiply.
2. India also needs to have a consistent broadband network and power connection in order to include the rural consumers. The government has already launched Bharatnet and background infrastructure for rural area is expanding slowly.

3. According to the Nandan Nilekani panel, India can triple the digital transactions in the couple of years. To achieve that, it has given 73 recommendations, the government can consider the same. The recommendations include:
 - a. All the government transactions should be done using digital payments.
 - b. The government should facilitate payment of tolls, purchase of railway tickets, subsidy payments to farmers through a digital medium.
 - c. The government should pave way to create cash-in cash-out machines (CICO) instead of ATMS which are now becoming very bulky and difficult to build and maintain. CICO machines can operate with a sim card whereas ATMs require a broadband connection.
4. India's transition to a cashless economy needs more focus on behavioral change (as observed during demonetization). The government is moving in the right direction as supply of digital infrastructure will eventually create demand for digitalization. This can have a multiplier effect on the economy.
5. Sweden and China are leading in countries digitization. In China, a considerable amount of money is transacted through 'Wechat'. Whatsapp is trying the same in India but is suffering due to data localisation issues. Such issues need to be resolved soon.

Incentivizing is better than imposing financial burden on either companies or banks; thus the switch to digital economy should not be based on compulsions and should be left on the market.

Conclusion

In the recent years, digitization, the mass adoption of connected digital services by consumers, enterprises, and governments, has emerged as a major driver and enabler of socioeconomic benefits. Indeed, despite unfavorable global economic conditions, digitization can play a key role in assisting policymakers to spur economic growth and employment. However, according to the management consulting firm Booz & Company's econometric analysis, its impact on countries and sectors strongly varies. By contrast, emerging markets tend to gain more from digitization's effect on employment than from its influence on growth while; across developed economies, digitization improves productivity and has a measurable effect on growth; yet, it can lead to job losses. To better channel the outcome of digitization, policymakers need to plan for how they digitize specific sectors and encourage the development of capabilities and economic enablers to help achieve maximum impact. Policymakers should shape the impact of digitization by becoming digital market makers. They will need to do more than set policy and regulations. Instead, they will have to encourage digital activities that benefit companies and society. "Policymakers have focused until now on improving the reach and affordability of ICT services. Though important, policymakers in the future also need to become digital market makers—creators of a digital economy that provides its citizens, enterprises, and economic sectors with the competitive advantage essential to thrive in a global market."

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Digitalization in Banking Sector in India

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Introduction

Financial activation without banking system is unthinkable. From barter system to digitalization of banks is a long way which India reached now. The origin of the word 'Bank' derived from the Italian word 'Banca' which means 'bench'. It is learnt that, the middle age merchants sat on benches which was used to keep the coins for lending, exchanging etc. In this sense, the first bank in the modern sense of the word was established in 1157 in Venice, Italy. It was known as bank of Venice. In the opinion of some scholars in about 2000 BC, banking system was in existence in Assyria and Babylon, The ancient great economist, Chanakya in his

Arthashastra during third century BC attracted the powerful merchants who lent money and kept deposits. In modern times, with the advance of science and technology, digitalization has become a trend. Every part of human life has become digitalized. It is the conversion of data into a digital format with the adoption of technology. Now a days banking transactions have become digitalized in order to provide better services to the customers. It has not only made all the banking procedures easy but also it is time saving. It minimizes. Human error so that banking, transactions has become more accurate and loyal. Now a days, a bank without digitization is means it is a century back Digitalization encompasses products and services for which the customers can available it by using their mobiles and computers. It provides better service in the old ways of doing business. A bank without digitalization cannot sustain in a world of competition.

Review of Literature

Dr. Chilumuri Srinivasa Rao (2013), presented a study is almost awareness of consumers in rural India with exceptional reference to SBI e-banking services. By if basic banking facilities and services bank like SBI can be successful then other profitable. Author recommended that bank should be highlight the safety of rural customers and support security by mechanism. They should introduce transparent payment structure of e-banking facilities for better understanding of the customers.

Dr. A Vinayagamoorthy, M Ganesan (2015) conducted that study shows on rural customers of Salem district to know their awareness about internet banking.

Internet banking is a beneficial implement for more real consumer service and their satisfaction. In their study authors suggested that such as Males are much aware than females and consciousness are more among young educated people so bank officials must create awareness among Women, aged people and less educated people. They also definite that with the modification of the industry and technology Bank must keep them informed to avoid any major significances.

P.Vidyapriya and M.Mohanasundari (2015) is lead towards a study almost awareness of rural customers about products connected to banking technology in rural south India. Through there are new development in technology banking industry derive by new banking products, banking services and delivery networks. They decided that change of banking services in rural India still not very exposed inclusive. They suggested to get clear of this issue bank can develop websites to report safety and trust aspect.

Dr. B. Maheswari (2016) have directed a study to find customer observations in rural area about banking habits. Customers are demographic and socio economic status effects the banking habits and their awareness about banking service factors. It is create from study that concentrated percentage of people is strong association with nationalized bank. They are rarely do any transaction with bank but maximum people are more involved in dealing with bank through ATM

Dr. KA Rajanna (2017) were shown a study to know the view of rural customers about online banking. Whenever development in online banking started with ATM, through bill payment, EFT etc. Which creates banking faster and more

suitable for the consumers. He had resolved in his study that rural customers used to face problem while using online banking due to lack of consciousness and fear of stealing of their personal details. Author proposed that before introducing online banking in rural area banks must perceptually formulate rural consumers for Online banking as long as proper regulation and training to them.

Panda, S. K. and Dr. Misra, D. P (2017) conducted a study in particular districts of Odisha about customer awareness about e-banking. E-banking is the practice of internet as a network of banking facilities from customer suitable place. It decreases long banking hours of the customers. Now e-banking has been adopted by the Garmin banks to provide services to the rural customers. Author specified that this is period of IT revolt and rural banks and gamin banks accepted e-banking skill to exploit consumer happiness which is a win-win condition for rural customers as well as rural banks.

Dr. K.A Rajanna (2018) led an education about observation and consumer awareness towards cashless transaction. Cashless economy is such an economy where monetary connections are prepared deprived of physical notes. Only 5 % businesses are through electronically which is reasonably low. Author create that socio economic conditions are main factor for cashless transactions as well as literacy rate, occupation, income of the family is directly correlated to this. He recommended that government should inspire another rural banking models for cashless economy with conclusion made from the research that people also needs cashless

economy to competition alongside social problems like corruption, terrorism etc. but government to create sure about internet safety to competition beside online scheme

Dr. S. Yuvaraj, Sheila Eveline.N (2018) accompanied this study about opinion of consumer about cashless transaction IT safety of digital economy. In India like economy, Physical currency is the sovereign of the economy. Presently the situation will be reformed with the express growth of cashless dealings and digital payment. However digital payment also consuming a risk issue of online scheme and financial evidence release to unapproved person. Author identified that practice of smart phones and internet entrance had mad cashless businesses simpler.

Digitalization as Part of Banks' Mission and Vision

In early days the banks were customer centric and customer satisfactions was in their mission and vision. Now digitalization has replaced it as it is all encompassing. After this revolutionary change, the budget as well as outlook and culture of the employees and customers has been changed drastically. The banks have to reorient the employees and also readjust with the system in order to cope up with the digital road. The banks have to set up the priorities and the vision and mission of the banks are to be changed.

Partnership with Technology Companies

In the non-digital era, the banks have to wait for the new technology for their new business. Gradually the points are addressed with technology based reactive measures. In a cut throat competition, the banks cannot wait for the valuable markets to slip away because it will be very difficult to

recapture fat a later stage. So the banks make tie-up with the technology companies to provide latest technologies for banking transactions. The companies also play a vital role in importing digital product education to the bank management and staff for the changing world.

A second step for the bank would be to invest in pilot projects for technology innovation. This would allow both the bank and the company to share each other's prospects and empowering of the bank to introduce new technology to side track the competitors.

Becoming a Data Driven Organization

The banks in the 21st century has adopted the principle of cost, speed and ease of operations. The banks have to do multifarious activities with the help of analytical technology. Hence digitalization encompasses the minute data patterns based on customer demography, geography, network usage, devices, products and types of apps used. Now customer's satisfaction is the main parameter. As data is available through analytical technology, hence, the banks must give stress for training and retraining of staff.

To monitor digitalization, a most effective approach must be applied. Deploy, measure and improved could be adopted to minor the organization countinuously. The banks must formulate short term, medium term, and long term digital strategies for its planning for future. A plan for a bank must be base lined and must be approved by the board and top management.

Application of tools to measure digitalization must be operational symbols like cost, investment etc. The parameters

must be measured and recorded through both manual and automated means. The improve step refers to learning by analyzing the data from the earlier step and employ it on a continuing basis.

Adopting Automation

Digitalization provides unique chances to banks for automatic running of works in a shortest time. At the same time, in every work along with digitalization, human touch should not be lost. In e-wallet, all the data regarding client in stored banks are always trying to improve their customer's services. Another feature of digitalization in Blockchain. It has infact revolutionized the digital transactions. The entire chain operations of the bank are examined and identify the repetitive and mundane works. By splitting the entire work into small parts and by employing automation process with technology brings desired results.

As a result of automation, considerable reduction of the workforce has been marked. The banks can reduce their manpower by adopting technological devices.

Shifting Investments from Maintenance to Innovation

It is a common trend for the banks that they are waiting for a technology to mature before shifting to a new technology. The entire business of the banks is to be examined and strategic investments in newly developed technologies must be accepted. The banks can save money and time through automation .New innovation will attract the customer's .In total the banks need to identify the deficiencies and accordingly apply the technology for its ongoing process.

The bank management must go for new strategies by adopting automation.

Online banking is a mile stone which gives people access to banks round the clock. It is now easy to manage large of cash. Cashless transaction has now become possible due to digitalization customers need not to keep cash anymore we can make transaction at any places and time. The situation is a relatively studied period for the banking trade, such as digital trouble has enforced various unescapable banks to stage out of their well-being area and active their digital spirited. Exchanging consumer performance, growing opportunities, omnichannel knowledge also the digitization of commercial and the world, in overall, have taken beside whatever certain persons demand the digital missiles competition in financial transactions. Banks about the sphere are recognizing how reserves in digital equipment could advantage consumer purchase and fulfillment.

Role of Digitization in Banking

Core banking is a modern concept which is the outcome of growing networks. CORE banking helps the customers to perform financial transactions and access their account from any of the participating banks branches. As the networks grew and banks began to connect together. Centralized Online Real-time Exchange (CORE) banking accordingly adequate customers to achieve financial transactions and contact their account from any of the contributing bank's branches. These services made it easier for customers to purpose their accounts and regularly measured to the making of the appearance. 'Anytime,

anywhere banking were facilities Automated Teller Machines (ATMs) reached on the act, and electronic account assignments were made possible. Online banking and Telebanking made their presence in the 2000's and unlike modes of online fund transfers were instituted such as Real Time Gross Settlement (RTGS), Immediate Payment System (IMPS), National Electronics Fund Transfer (NEFT), and National Electronic Clearing Service (NECS). They have seen growth in mobile banking services and other innovative online services in recent years.

1. Improved customer experience as Mobile banking, online banking, UPI can be used 24x7.
2. Reduction of costs for banks and customers as well by using ATMs, cashless transactions etc.
3. With more digital data available with banks, they can take data-driven dynamic decisions by using digital analytics. This benefits both customers and banks.
4. Technology is non-discriminatory. Everyone will be treated same at banks.
5. Number of customers will be increased for banks because of the increased convenience of banking.
6. Digitization reduces human error.
7. Opening and maintaining bank accounts are easier now
8. Rural and urban gap has been eliminated.
9. Productivity has been increased as more tasks can be accomplished within less time.

Digital Banking Trends in India

Digital India in the banking sector has grown sharply in recent times. Some trends we see in digital banking in India are:

Increase in Customers

The government's inspiration to use electronic wallets has funded much to people accepting the habit of technology in financial transactions . We know a fast growth in the use of credit/debit cards as well as electronic wallets and the movement will continue.

Chatbots

A number of banks have now employed chatbots in their customer care processes. We will see a fixed increase in the number of chatbots employed as well as developments in their speed of reply and superiority of contact and the quality of services reduced.

Merge Physical and Digital Process

Today we have seen various banks deal a mixed physical and digital progression to their customers. The customers could walk into the bank and then use strategies there to carry out their transactions. In the Indian context we will positively see a balanced increase in this kind of service particularly in the rural areas.

Mobile Technology

The propagation of mobile phones and the easy and low-priced accessibility of internet has an intended that the banking sector had to offer digital services via mobile phones. A number of banks have advanced apps to help customers handle banking transactions on their mobile phones. This

movement will only continue. We can expression accelerative to extra structures and services being provided, and the user knowledge being more rationalized.

End to End Digital Marketing

This number of consumers are now using devices to handle their banking responsibilities. Banks have come to understand that digitization is the only method of advancing. Therefore a number of banks have now started on the route of end to end digitization, in their struggle to offer all types of facilities completed the internet, resulting in paperless transactions.

Impact of Digitalization on the Banking Sector

Individual of the trends in the banking industry is that the largest banks have financed a lot in digital and into the future, while many minor and regional banks have more problems to preserve up as they are more reliant on technology merchants. As a consequence, the market share is obviously affecting near the large performers because they have more resources. Such as alternative by product of the digital era of changes, the financial sector is below persistent burden from new Fintech disruptors. Assumed that the disruptors incline to be startups absorbed on a specific technology or procedure. They are more flexible and earlier when it originates to accepting inventive answers and contribution more modified user knowledge.

Advantages and Benefits of Digital Banking

Customer Service

Without internet easily accessible everywhere, all a customer necessities to access his account is a device and

internet connectivity. It keeps him time and expense. He has no longer to travel to a bank to move available for transactions. He does not have to wait in continuous lines only discovery that he will have go to a changed counter to develop his job prepared. Online services make it conceivable for him to sit in the security of his home or office, or in circumstance level in a vehicle while travelling, and convey from available transactions without consuming to wait for anything.

24x7 Availability

The customer is capable to payment his bank accounts anytime he needs and a number of banking services are accessible to him round the clock. Transferring money is easier, quicker, and safer.

Time Constraint

A number of services necessary waiting for substantial days. Banks had boards put up at their branches identifying the time essential for different services. Even just cashing a cheque acquired time. However without digital banking it is prepared, with no time restrictions.

Online Bill Payments

This is a feature that avoids customers a lot of time and payment. Customers do not have to carry cash besides line to pay their utility bills or other bills.

Lower Overheads

Digital banking has significantly reduced the working costs of banks. This has made it conceivable for banks to charge lower bills for facilities and also deal higher interest rates for deposits with lower operative costs have an intended more profits for the banks.

Banking Benefits

With the improved suitability of anytime, anywhere banking, the number of customers has enlarged for banks. Human mistake in calculations and recordkeeping is condensed, if not removed through records of every transaction being upheld electronically. It is possible to generate reports and analyze data at any point, and for changed determinations.

There are Fluctuating from analog to digital form comes with many benefits for the banking sector. Here are some of them:

1. Above all, it improves considerably the customer experience.
2. The number of customers grows thanks to the convenience of the service that permits users to save time.
3. The costs for banks and customers can be reduced by using ATMs, cashless transactions etc.
4. On the other hand, now that we have more digital data we can use it to make data-driven dynamic decisions. This is helpful to both banks as well as customers.
5. Digitization reduces human error.

Major Drawbacks

1. Reduction in Jobs as Digitization makes possible to do more work with less effort.
2. Vulnerability of computerized Data as Banks are always prone to hacks & cyber-attacks.

Banking Tech Case Studies

Through currently the situation has convert recognizable that banking apps are attractive measure of

our day-to-day lifecycle. A training discloses that aimed at illustration in the U.S. the banking apps are presence used to the identical magnitude such as common media as well as weather condition apps. The digital world is in persistent change also there are already many valuable illustrations of digital revolution in the financial transaction business.

BBVA

Above the ancient two years the banking group has through important growth in the digital ground. That hasn't gone ignored and takes earned them widespread appreciation (top spot in Forrester Research's 2017 and 2018 European Mobile Banking Level). In 2018 BBVA Spain's moveable banking assumed the highest advertisement as a leader in Europe, involvement the "perfect" balance between comprehensive functionality and special operator information besides calculating technique advanced (87 points out of 100) than the European overall average (68 points). Some of the maximum well-received functionalities of the app is BBVA Valora, which permits operators to estimate the greatest value at which to payment, sell or purchase a property and whether they can give it. BBVA's app also verified maximum in the area of money controlling through their financial prosperity implement economy. This instrument services the customers to get a image of their financial condition and how to development the situation.

Sberbank and Digitisation

The largest Russian bank started the digital facelift method in 2017 when the provisions aimed at the relocation

of banking information from four hired data insides to the original bank-owned data focus developed. Now a days, though it's massive market segment, Sberbank objectives its presentation beside technology enterprises, not other banks, in order to be able to reply to the fluctuations at rapidity and measure. Sberbank accessible has developed to remain the major another compensation scheme to bank cards with an imposing 40 million monthly consumers. Without all the digital facts presented to them, Sberbank purposes to have fully-filed profiles of 95% of its customers and base 90% of its sales discussions on these shapes by 2020. By cooperating through financial technology startups across the sphere, investment and shareholding, Sberbank hopes to create a marketplace interface, such as those of Apple and Android to come to the market with new resolutions for extra organizations to practice and make apps scheduled.

In this period of digital fluctuations, level of the minimum enterprises can cause big influences, so the largest banks have all been compulsory to participate big amounts to keep up with the digital transformation. At this point, there is no rejecting the future in digital, whether you are one of the highest five or a small Fintech company.

Future of Digital Banking in India

What can us aspect forward to on the prospect of digital marketing in India? Technologically India is a very advanced country. We do not only implement new technology but are persistently modernizing; we are at the critical power of technology. Consequently the future of digital banking in India

is very optimistic and we can look accelerative to new improvements and facilities from the banking sector. Digital banking should not be observed at just as a technological improvement. Neither is it a customer service creativity. This is a revolution in how the banking industry purposes and the services it concentrates.

Conclusion

Digitalization has deposited disruptive ways and means of retrieving banking services and calls for totally changing banks' perspectives and significances on the conduct of business. The future of the bank is digital and conceivably digital alone and that means banks dedicated to technology will continue competition and serve into the detached future. Digitalization also means banks progressively requirement to reflect the basic technologies in their attitude, plans and operations and therefore a strategy of close support with technology companies will be of benefit.

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SRF International

Youth Entrepreneurship

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Absract

Entrepreneurs are considered to be most crucial element of economic growth and development there is a vast population of youth in country but what lacks behind is employment opportunities for the growing youth population in such condition 'Youth Entrepreneurship' becomes the need of hour. Nurturing youth Entrepreneurship is proving to be very effective as well as beneficial in the interest of society ,economy and growth of nation and from the individuals point of view it is a platform for individual development, development of skill ,gaining new experiences innovation and achievement Youth Entrepreneurship can lead to the creation of jobs for others too. In our progressive country youth Entrepreneurship is an emerging trend and efforts are being made at various levels for its promotion. For this ministry for skill development and Entrepreneurship is organized to Empower of youths can be harnessed by making them self sufficient and adequately skilled so that they can create employment for them or for all others.

Keywords: Entrepreneurship, Progressive, Harnessed, Nurturing.

Introduction

Promoting youth entrepreneurship will not only help in reducing unemployment but more importantly showing young people that they have alternatives to create their own destiny by starting their own companies and just not waiting to find a job. A lot of work has been done to find the determinants of entrepreneurship. Different research works have stressed different determinants. In India youth unemployment rate is higher than the national unemployment rate . As per statistics of 2019, 10.51 % of youths in India have no job to do despite of being skilled and efficient. In the present scenario when the nations are adapting to globalization, the hope for the youth is to create more and more jobs rather than just being a job seeker. All countries have different perspectives and needs due to which youth entrepreneurship objectives also differ for all. As per the changing scenario and technological era the Indians are becoming more and more ambitious about youth entrepreneurship. As per a survey conducted by Dutch multinational human consulting firm named Ramstad Work monitor 83% of Indians preferred to be entrepreneurs, it was much higher than the global average % which was only 53%.

Need To Promote Youth Entrepreneurship

Creating an innovative and entrepreneurial environment is being looked as one of the best ideas for engaging the youths in job and creating more and more jobs for others also. Many initiatives are being taken to nurture the young innovative minds in the country. Some example of such initiatives are-

Make in India, Digital India, Mudra Yojana, Atal Innovation Mission, 59 minute loan, Stand up India, Start –Up India etc.

These initiatives are being taken in order to encourage the ambitious, talented and aspiring young class of our country. The number of incubators increases by 40% every year, the startups are continuously staring at a golden future. By providing necessary support to the skilled young people country will move towards development fostering economic growth and achievement and side by side curbing the ill impacts of unemployment. It is a globally accepted fact that the youths are the greatest asset of any country. They are country's future representing it at every level. Youths possess intelligence, smart working skills, power to take and face risks courageously and many more qualities which only needs to be polished with effectiveness. Once the young class gets support it can surely take the country on the path of success .Thus, they can be rightly called as the building blocks of the country.

Types of Youth Entrepreneurs

With recent studies and based on the differentiation in the behavior and attitudes, roles, functions, industry and many more relevant categorization of Youth Entrepreneurship has been put forth by the researchers-

Innovative Entrepreneurship

1. Innovative entrepreneurs are the ones who have the capability of diverse thinking, quality of creating new innovative processes and business opportunities with the help of their own innovative ideas .Many of the entrepreneurs in the developing countries and under developed countries who bring home tried and tested technologies from the developed world and establish them in the home country come under this category. List of innovative entrepreneurs in increasing day by day .

2. For example-Mark Elliot Zuckerberg - Founder of facebook, Ritesh Agarwal –Founder of OYO rooms, Vijay Shekhar Sharma- Founder of Paytm etc.

Fabian Entrepreneurship

1. Fabian entrepreneurs are the second generation entrepreneurs .These type of entrepreneurs do not prefer to take risks ,they only imitate if they observe that the things have a clear and broad picture .They keep on following traditional methods instead of adapting to changes .These type of entrepreneurs have very shy and lethargic nature and are very cautious.
2. For example- Kodak, it has been market leader in producing analog cameras, but did not realize the changing scenario of growing demand for digital cameras.

Drone Entrepreneurs

1. Drone entrepreneurs are the orthodox entrepreneurs who are very conservative in outlook. They keep stuck to their traditional working methods, machineries or systems and feel comfortable with it .Adapting to modifications is very vital for growth, profit and success but these type of entrepreneurs do not move out of their old fashioned methods thus, suffer losses.
2. For example- “Beeree” producer Co- operative still produces tobacco with the help of hands instead of machines, in this advanced era when advancement of science technology is at its peak.

Advantages of Youth Entrepreneurship

1. Many factors contribute significantly in developing entrepreneurial outlook like- beliefs, values, attitudes, innate spirit, inborn features of leadership, environment, family

background, skills, etc. Right mix of all these factors can create a perfect successful youth entrepreneur.

2. Development of new markets .
3. Promotion for the use of modern technologies in small scale production to increase the productivity .
4. Encouragement to more and more research work and studies.
5. Development of new and modern equipments, machines for domestic use.
6. Developing entrepreneurial attitude among the potential entrepreneurs to bring about remarkable changes in the rural and disadvantaged regions.
7. Freedom from depending on others to offer job opportunities.
8. The capacity to have great accomplishments.
9. Reduction of the informal economy.
10. Scope to foster one's own qualities and skills.
11. Platform for self assessment and self development.
12. Growth of economy.

Cultural Dimension to Youth Entrepreneurship

When we refer to a country's resources and wealth, we refer to their economic position, the availability of natural resources, financial status as well as the state of technological growth etc. However not much attention is given to assess the human capital especially the youth capital . It is true that youth is the future of every nation, a fact that most people tend to forget. Every nation seems to be caught up in chasing current priorities and not giving sufficient attention to the development of youth which is going to be the future human capital .If the youth have to be developed as a resourceful and innovative future generation, the effort has to be put in by all including family, society, community, schools, colleges as well as industry and government

too. As such each of these has a significant role to play in contributing for creation of Youth Entrepreneurship.

Family and Community play a very significant and important role in directing and guiding the youth in pursuing their future. Normally communities and societies that have had to struggle or have been striving for economic sustenance are seen to promote a view that the youth should take up a job and start contributing to the family's income and help with the expenses.

Nurturing Youth Entrepreneurship - The Need of The Hour

Nurturing Youth Entrepreneurship can be highly beneficial for the society, economy as well as for the progress of the nation besides the individual's self development and achievement too. Most nations have identified this fact and are providing some focus and thought into building programs conducive for Youth Entrepreneurship and providing the right environment for Youth Entrepreneurship to evolve. However nurturing it calls for a strategic plan at national levels .Planning to promoting it has got to be a multi pronged strategy of building awareness, providing role models, encouraging entrepreneurial culture, introducing Entrepreneurial developmental programmes at school and college levels as well as providing for policy framework and mentorship to encourage YE and start up businesses etc .Youth Entrepreneurship building program calls for long term approach along with short term action plans too.

Government of India Support for Innovation and Entrepreneurship in India

The Government of India has undertaken several initiatives and instituted policy measures to foster a culture of innovation and entrepreneurship in the country. Job creation is a foremost challenge facing India. With a significant and

unique demographic advantage, India, however, has immense potential to innovate, raise entrepreneurs and create jobs for the benefit of the nation and the world. A few of India's efforts at promoting entrepreneurship and innovation are:

1. Startup India
2. Make in India
3. ATAL Innovation Mission (AIM)
4. Support to Training and Employment Programme for Women (STEP)
5. Jan Dhan- Aadhaar- Mobile (JAM)
6. Digital India
7. Biotechnology Industry Research Assistance Council (BIRAC)
8. Department of Science and Technology (DST)
9. Stand-Up India
10. Trade related Entrepreneurship Assistance and Development (TREAD)
11. Pradhan Mantri Kaushal Vikas Yojana (PMKVY)
12. National Skill Development Mission
13. Science for Equity Empowerment and Development (SEED)

Conclusion

Entrepreneurs creating new businesses and industrial units help with regional development by locating in less developed and backward areas. The growth of industries and business in these areas leads to infrastructure improvements like better roads and rail links, airports, stable electricity and water supply, schools, hospitals, shopping malls and other public and private services that would not otherwise be available. Increase in the standard of

living of people in a community is another key goal of economic development. Entrepreneurs play a key role in increasing the standard of living in a community. They do this not just by creating jobs, but also by developing and adopting innovations that lead to improvements in the quality of life of their employees, customers, and other stakeholders in the community.

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Digital Transformation: Its Impact and Future Prospects

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Abstract

Digital India program is launched to empower India digitally. Under this campaign, all health services and government offices including education, hospitals and villages will be connected to the capital of the country. For which broadband service will be available in 2.5 lakh villages with optical fibre. Through which the common man will directly connect with the government. Apart from this, the government will provide Wi-Fi facilities across the country. So that, the common man does not has to wait for any work. The aim of the study is to know the achievements, challenges, impacts and future prospects of digital formation in India. The study is based on secondary data, which

was collected from magazines, newspaper and websites. It is concluded that Digital India is facing some hurdles; it still has great influence on India to create the best future for every citizen. Indian must work together to shape the knowledge economy. Overall development can be realized through supporting and enhancing elements such as regulatory environment, literacy, basic infrastructure, overall business environment and more.

Keywords: Digital India, Digitalization, Government of India, Digital literacy, Digital transformation

Introduction

Digital is not almost technology execution, it covers the transformation of business, enterprises and governments using technology, to make experiences better, communication effective and work simpler. Thus, until now, digital has four aspects — social media, mobility, analytics and cloud — commonly called SMAC. Increasing levels of digitization and digital adoption, though noteworthy, are still not sufficient to bring rock bottom layers of the pyramid under the coverage of digital benefits. This is often a worldwide challenge and impacts both developed and developing nations, albeit to varying degrees. Economic and social factors are often universal, while India has some unique challenges of pronunciation by its vast geography and language diversity. During the last years, the Government of India successfully initiated various initiatives, creating many challenges and paving the way for digitization. The biometric authentication program “Aadhaar” rang the bell for India’s digital revolution. Under the flagship campaign “Digital India”, the govt continues to initiate further projects for the advantage of citizens also as companies. Mission "Smart Cities" viz. considered to rework the

urban landscape, create new investment opportunities and boost employment.

Everybody, including the social sector, took advantage of digitization. It is observed a bigger growth though in fields which are directly linked to state programs. Mission "Smart Cities" will contribute not only to the promotion of infrastructure development and land industry but also the steel and concrete industry. The government plans "Digital India" and "Make in India" successfully created new opportunities for the technology sector. Some market leaders started manufacturing electronic products in India. The "Skill India" initiative aims to market digital supply, enabling large-scale development of competence development, using technology as mass supply.

Methodology

The aim of the study is to know the achievements, challenges, impacts and future prospects of digital formation in India. There are two source of collecting the data, primary and secondary. The study is based on secondary data, which was collected from magazines, newspaper and websites.

Digitalization in India

The 'Digital India' initiative was launched by Prime Minister Narendra Modi on 1 July 2015, there have been dramatic improvements in all of its three key facets: in the creation of a comprehensive national digital infrastructure, electronic delivery of public services and financial support for citizens and in raising digital awareness and literacy. This program has been launched with the objective of transforming the country into a digitally empowered society and knowledge economy. Digital India will ensure that government services are available electronically to citizens. It will also bring public answerability through compulsory

delivery of government services electronically. India is already one of the world's largest and fastest growing destinations for digital consumers and is digitalizing faster than many mature and emerging economies. India is one of the fastest digitizing countries in the world; inspired by an explosion in mobile connectivity, the iconic BharatNet program allowed nationwide internet infrastructure, rapid growth in data consumption, and the emergence of start-ups in the digital transformation space that provide new livelihoods, services and wealth for millions of Indians.

Achievements in Various Sectors

These are the various achievements of digitalization-

1. In 322 major hospitals “eHospital services” has started and made it easier to take online appointments. The eHospital application provides online registration, payment of fees and appointment, online medical test reports, online blood availability checks, and so on.
2. 5.5 million Post offices are digitally connected and around 10 million digital transactions take place in a day.
3. ServicePlus: A metadata based single integrated e-service delivery framework with a fully configurable service definition, facilitating rapid rollout of any service by the government, making them available in an efficient and transparent manner.
4. BharatNet: More than 1.19 lakh gram panchayats have been connected through optical fibre to provide high speed internet connectivity. It aims to connect 2.5 lakh gram panchayats across India with optical fibre.
5. 65 lakh Common Service Centres (CSCs) are active and 2.39 lakh Gram Panchayats have a CSC presence.

6. Pensioners are not required to visit the bank branch which disburses their pension every year. Pensioners can produce Jeevan Pramaan digitally from any part of the country.
7. BHIM UPI: a fintech innovation of India which has transformed the digital payment ecosystem. BHIM UPI has made it possible to make payments using a simple and easy mobile app.

Challenges for Digital Transformation

More than four years has been passed since Digital India mission has been announced but it is facing multiple challenges in successful implementation. Few of the challenges are given below-

1. The high level of digital illiteracy is the biggest challenge in the success of the Digital India program. Low digital literacy is a significant barrier to adaptation of technologies. As per the Assocham-Deloitte report on Digital India of November 2016, around 950 million Indians are still not using internet.
2. For making Digital India scheme recognized and creating awareness among the general public about its benefits is also a major challenge.
3. It is not an easy task to have Connectivity with every village, city and connecting 250000 gram panchayats through national optical fibre. The biggest challenge is to ensure that each panchayat point of the broad band is fixing-up and functional. It has been found that 67% of NOFN points are non-functional even at the pilot stage.
4. The main component under this vision is the high speed of the internet as a main utility for facilitating online delivery of various services. Internet speed in India is low. According to the Akama report on internet Speed, India ranks 105th in the

world in average internet speed. This rank is the lowest in the entire Asia Pacific region.

5. As per the ASSOCHOM-Deloitte report, the issue related to taxation and regulatory guidelines has proved to be a road block in realizing the vision of Digital India. Some common policy constraints include a lack of clarity in FDI policies that affect the growth of E-Commerce.
6. Slow and delayed infrastructure development has become the big challenge for Digital India Program. India's digital infrastructure is largely inadequate to cope with the increasing growth in digital transactions. India currently requires more than 8 million hotspots as against the availability of around 31000 hotspots globally.
7. Proposals issued by the government are not taken up by competent private sector organizations as they are not commercially possible. Currently, more than 55000 villages are denied mobile connectivity because providing mobile connectivity in such locations is not commercially possible for service providers.
8. There are 1600 languages and dialects in India. It is not easy to provide digital services in local languages, great barrier in digital literacy.
9. Cybercrimes and breach of privacy are a hindrance to the adoption of digital technologies. Most technology, including cyber security tools, is imported. India in needs of 1 million trained cyber security professionals by 2025, at present the number is 62000.

Impact and Future Prospectus of Digital Formation

India had 560 million internet subscribers, second to China. Digital services are growing in parallel. Indians download more than 12.3 billion apps in 2019 - spend more time compare to any

country except China and spend more time on social media- an average of 17 hours a week compared to social media users in China and the United States since 2011. The share of adults with at least one digital financial account in India has more than doubled to 80 percent. The government's DBTS now caters to around 350 million Indians, freeing them from bureaucratic hurdles, while ensuring that process leakages are a thing of the past. Instant and secure financial transactions are now accessible to everyone with integrated payment interfaces in three years ranging from one lakh to eighty crore transactions in March 2019. In the realm of digital literacy, the government's Pradhan Mantri Gramin Digital Abhiyan campaign has ambitions to make 60 million Indians digitally literate, and it is anticipated that the program will gain greater traction in the coming days. India is striving to become one of the early adopters of 5G technology, and its induction is expected in many ways with possibilities and opportunities across the spectrum. Some achievements of digital formation are as follows-

According to McKinsey Global Institute (MGI) -widespread adoption of digital technologies across India on the back of increasing internet access could potentially boost key economic sectors by 2025. The report found that the core digital sectors already constitute a large and growing part of India's economy and can contribute \$355 billion to \$ 435 billion of GDP in 2025. India's digital economy in 2019-20 is 5% of nominal GDP as compared to 6.8% in year-ago period. The majority of this value about \$170 billion - comes from core sectors that already provide digital products and services, including IT and business process management, \$115 Billion are included; Digital communications and telecommunications services, \$45 billion; and electronics manufacturing, including mobile handsets, \$ 10 billion. The remaining value comes from the initial scaling of new digitization areas and applications such as e-commerce and direct benefit transfer. The rapid growth in the number of smartphones has

contributed to the promotion of digital development in the country. The number of smartphone and internet subscriptions could grow rapidly in the next five years. India could add more than 350 million smartphones, more than doubling its absolute level. As the cost of data has fallen sharply and usage has increased, smartphone penetration has increased at a faster rate than average.

India could see significant economic growth for three different regions and activities, as digital applications are becoming ubiquitous. The first is digital sectors of Information Technology and Business Process Management (IT-BPM), electronics manufacturing and digital communication services. The sectors are already well recognized as part of India's digital economy, are intrinsically digital in nature or create products and services that help to become others digital. The agriculture, financial services, healthcare and logistics are the new digitization second sectors, that are not traditionally considered sectors of the digital economy, but digital applications are increasingly being used to become more productive. The third is the market for government jobs and skills, both of which are ripe for digital applications that can boost efficiency. According to MGI report, 275 million internet subscribers will be added in India by 2023, reaching a total of over 835 million subscribers. Digital communications services will also contribute to this growth, potentially with an economic value of \$ 50 billion to \$ 55 billion in 2025. Meanwhile, internet data consumption will continue to rise at a faster pace after rising smartphone penetration, increased broadband connectivity in remote regions across India under BharatNet2, and increasingly affordable cheaper data costs.

Conclusion

The conclusion of the study is that the vision of Digital India Program is very ambitious for Indian government. This is indeed a huge step towards building a strong nation. When successful, it transforms citizen access to multimedia information, content and

services. However, the target is still far off as most of the pillars of the Digital India mission are facing serious challenges in implementation. It is essential that each and every pillar be continually looked at so that this program does not end in failure. However, it is important to note that Information and Communication Technology (ICT) cannot directly lead to the overall development of the nation. Overall development can be realized through supporting and enhancing elements such as regulatory environment, literacy, basic infrastructure, overall business environment and more. Although the Digital India is facing some hurdles, it still has great influence on India to create the best future for every citizen. Indian must work together to shape the knowledge economy. Let us all look forward and join hands for program successful implementation for brighter and prosperous India.

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Recent Trends in Digital Banking and Financial Services

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Abstract

In the future, technology will determine the modalities of banking. This includes huge data, cloud computing, smart phones and similar inventions. Customer interaction and transactions with banks will be omniscient rather than polygamous. Video conferencing will be used for personal contact. Face detection technology will be used to identify customers and avoid fraud. This paper is based on descriptive analysis and secondary data collected from various sources like newspapers, magazines, research papers, and websites. The objective of study is to know recent trends in digital marketing and financial services and also know digital banking growth and future prospects. It is concluded that Indian Banks are slowly and steadily moving towards the digital revolution. To compete with other foreign

banks, they are introducing innovative features in their offering and trying to make the overall customer experience more simple and flexible. The future of banking is certainly digital banking and, as a result, more open, more transparent, more ambitious. Most importantly, it is in the hands of the customer.

Keywords: Digital banking, Trends, Mobile banking, Transactions, Government, Technology

Introduction

The Banking industry and financial institutions are very important sectors of economy. Growth of these two sections of the economy can impact the growth of the country in fastest way. In the era of "Digital India", banking and financial services in India have developed in a big way and are continuing to grow. The transformation can be attributed to numerous components like new regulatory policies and customer expectations. The development of innovative financial technology has revolutionized financial services in India as well as the banking sector. This has resulted in the introduction and advancement of several technology trends that have contributed to the radical transformation, development and growth of these industries. The nexus between the financial sector and innovative services of banking has replaced traditional systems of money handling, and this collaboration is expected to make a major shift with emerging trends in financial services.

Taking advantage of banking facility through digital platform is called digital banking. Through this customer can use all the facilities, which get in a bank branch. Digital banking is free from paperwork such as cheques, pay-in slips, demand drafts, etc. Digital banking provides all banking activities online and avail facilities 24 * 7 without going to any bank branch. Digital banking can be used through a laptop, tablet or mobile phone. Today the maximum countries in the world are moving towards digital. Digital TV, digital watch, digital classes etc. have become common practice. Banks are

not far behind in this era of digitization. Banks are also engaged in digitalizing themselves by adopting new technology. Due to this, competition in banks is also increasing. Banks are engaged in providing and extending their services to customers anywhere at any time.

Review of Literature

According to Khandelwal, A.K. (2017) Banks assume a huge job in our day by day lives. For endless individuals, in any event a solitary financial exchange is been done in a solitary day. In this manner banks dependably endeavour to execute most recent technologies to improve customer experience. Digitization is certainly not a decision for the banking industry, but it is certain in light of the fact that every industry is being digitized and the banking part is no exclusion. Nanda, B.R., (2016) we will be a piece of our not really far off future when we anticipate driverless autos and robots; it ought to be similarly immediate for us to envision a future banking framework with its own type of artificial intelligence (AI). Artificial Intelligence empowered Apparatuses; For example, chatbox are now executed by banks to interact with customers. AI can potentially transform organizations on an extraordinary scale from virtual financial associates to computerized credit scoring and prescient examination. Balaraju, K., and Balakrishnan, M (2015) from a customer perspective, AI is beginning to improve their experience in smart ways, rapidly and productively settling their issues. AI will enable banks to spot diagrams and take care of customer issues at a fragment of the present speed in a very cost-proficient way. This second rush of interruptions will have an amazing impact, transforming the banking industry and with it the customer enterprise. Banks should seize the opportunity when banks begin to shift to lower gears. As time is not hanged tight for an organization, individuals including banking divisions. Bhattacharya, H. (2015) Contrast between Online and Digital Banking for the most part, these two

words are options. Be that as it may, web-based banking may be more difficult to present as web-based banking on money transfer, charge pay and fundamental online administration of accounts. Different terms for web based banking include virtual banking, internet banking and e-banking. Along these lines, web based banking centres around digitizing the "core" highlights of banking, yet digital banking incorporates digitizing each program and action attempted by financial establishments and their customers.

Research Methodology

This paper is based on descriptive analysis and secondary data collected from various sources like newspapers, magazines, research papers, and websites. The objective of study is to know recent trends in digital marketing and financial services and also know digital banking growth and future prospects.

Recent Trends in Digital Banking and Financial Services

Some trends in digital banking and financial services in India that are changing the whole scenario-

Market Size

The Indian banking system consists of 18 public sector banks, 22 private sector banks, 46 foreign banks, 53 regional rural banks, 1,542 urban cooperative banks and 94,384 rural cooperative banks as of September 2019. During financial year 2007–2019, deposits in CAGR grew by 11.11 percent and reached US\$ 1.86 trillion by financial year 2019. The deposits amounted to Rs 132.35 lakh crore (US\$ 1,893.77 billion) as of February 2020. The total equity funding of the microfinance sector increased to Rs. 14,206 crore (US \$ 1,893.77 billion) at an annualized rate of 42 years in 2018-19.

Recent Trends

Banks Adopting Blockchain Technology

Blockchain is the technology that works on the principles of computer science, data structures and cryptography and is the core component of cryptocurrency, will be the future of banking and

financial services globally. Financial institutions and banks have started thinking about providing better services to modern customers using blockchain technology. Because Standard Chartered Bank has surpassed others by launching blockchain based One Pay FX. One Pay FX is the first foreign money transfer service exclusively for retailers. One Pay FX uses blockchain-based technology to transfer money from one account to another, providing a secure, fast and simple way. Blockchain technology is providing a lot of opportunities to improve customer services. NITI Aayog is building India's largest blockchain network, to revolutionize many industries, reduce the possibility of fraud, increase transparency, speed up transactions, reduce human intervention and create an unhackable database.

Future Customer Service will be Based on Automation

Banks are adopting a new approach to providing services to customer. They are investing in chat and video chat services. This is because customers are more satisfied through chat services and business get better results from it. In future, the solution of customers' problem and interaction with them will be through automation.

Digital Payment

Since the demonetisation on 8 November 2016, online transactions have increased in India. Also, most of the online transactions have been done through mobile banking. This shows that the trend of cashless is increasing in the country. Nowadays small businessmen and shopkeepers to big businessmen are doing online transactions with the help of Paytm, BharatPay, GooglePay etc. For this reason banks are emphasizing on making mobile banking better.

Biometric Technology

Linking Aadhar number to accounts has enabled banks to identify their customer by evaluating one or more specific biological traits like face, hand, retina, voice and ear features in wake of an issue. The development of such technology is far more reliable and will continue

to spread in the times to come, as it may eliminate the need for multiple passwords and PINs.

Cyber Security

There were 847 bank robberies in Britain between 1992 and 2011, but now their number has come down to 66. The main reason is criminals carrying out such incidents by cyber attacks, online data hacking etc. Avoiding cyber attacks and protecting data is a major problem. Therefore banks will adopt new technologies and will insist on providing special financial services, so that cyber attacks can be avoided.

Digital Transformations

Mobile Banking

Mobile has become the need of the people today. People like to do all their work with mobile. That's why most people are using mobile banking. Mobile banking is a system through which people can avail all types of banking facilities such as transfer funds, deposit funds etc. through their smartphones. In future, mobile banking will be more convenient and easy.

Automatic Capital Management

Automated Capital Management is the system through which the management of capital is fully automated. That is, using algorithms through artificial intelligence techniques, the best options and opportunities are calculated and the investment and capital are managed on this basis.

Big Data

In today's time, Big Data has become very important for all industries. It is also being given importance in the financial services industry. Through this, it is easy to expand services and industries.

Digital Banking Growth and Future Prospects

Cashless payments system is growing faster in India than other countries around the world. The change has attracted host of tech companies backed by foreign investors battling for market share.

According to Bank of International Settlements (BIS) data, digital transactions in India grew by 55% last year, compared to 48% in China and 23% in Indonesia. If compared, cashless payments grew by around 10% in the UK, a developed market where card transactions are already entrenched. There are several features in India that drive growth in digital payments. It has a large population after China, with deep mobile phone penetration. A large proportion of that population is not well served by existing banking services. According to consulting firm KPMG, digital payments are expected to grow by around 29% annually in developing markets through 2024. India's shift to digital has not always been smooth. The government of India abruptly banned some Indian currency notes in 2016, a strategy that sent shockwaves through the economy. The policy led to cash shortages and drove up unemployment. Consumers quickly reverted back to cash. However, since then, cashless payments have gained momentum. There are more than 10 million locations in the country that can accept digital payments, up from about 1.5 million when the government demanded demonetization. Digital transactions also got speed up from the Unified Payments Interface (UPI), which facilitates real-time payments between bank accounts. Digital Banking Market is expected to grow at a CAGR of over 22% during 2019-2024 owing to growing technological advancements, increasing internet penetration and growing number of smartphone users in India.

Worldwide, as digital transactions replacing cash, payment companies have become some of the fastest growing and most valuable enterprises. According to KPMG, there are more than 45 mobile wallet providers and some 50 UPI-based wallet providers in India. There is still much room for growth. In India, on average, in 2018 there were only 18 cashless payments per citizen, compared to 142 in China and 529 in Sweden. As cashless transactions rise, competition is also increasing. Paytm, the nation's largest payment

group, is raising \$ 2 billion from the likes of Ant Financial (Quartz Member Exclusive) and Soft Bank, like American giants Amazon and Walmart, according to Financial Times (paywall). While Walmart-owned Paytm and PhonePe are the largest players, Google Pay is the leader in UPI transactions. Facebook is also collaborated with Reliance Jio, as WhatsApp is gearing up to launch its payment service.

Conclusion

This is concluded that Indian Banks are slowly and steadily moving towards the digital revolution. To compete with other foreign banks, they are introducing innovative features in their offering and trying to make the overall customer experience more simple and flexible. It is also seen AI being used by banks through chatbots in the front office. Banks are using AI for customer identification and authentication. India Digital Banking Market is expected to grow at a CAGR of over 22% during 2019-2024 owing to growing technological advancements, increasing internet penetration and growing number of smartphone users in India.

It can be said that the future of banking is certainly digital banking and, as a result, more open, more transparent, more ambitious. Most importantly, it is in the hands of the customer. Banks of the Future will use data to build a 360 degree view of their customers, not only for compliance to regulations, but to increase the value of services they offer. Empowered and more informed customers will be able to make choices more quickly and easily, Leading banks will become a trusted interface for life, embedded within the needs and lifestyles of consumers.

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A Study of Digital Marketing Channels

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Abstract

Digital marketing is often referred to as 'online marketing', 'internet marketing', or 'web marketing'. It is an umbrella term used for promoting and marketing products and services using the digital technologies such as internet, mobile devices, desktop computers, search engines and other digital technology platforms. The paper investigates the various digital marketing channels such as social media marketing, e-mail marketing, display Advertising, Video advertising, content advertising, Search Engine Optimization, mobile advertising. The paper also throws light on the challenges faced by digital marketers. The interactive nature of digital marketing strategies helps in increasing the client base within a short span of time. Digital channels offer new prospects to cultivate consumer relationship and loyalty.

Key Words: Online Marketing, Digital Technologies, Search Engine Optimization, Mobile Advertising.

Introduction

Marketing is the action or activities of the company/business that encompasses the selling, promotion and distribution of products or services. It includes market research, product design and development, advertising, selling and distributing products. The basic objective behind the marketing is to increase the market share through creating the demand and increasing the customer satisfaction thereby increasing the goodwill and image of the firm. Digital marketing also known as online marketing is one of the components of marketing that involves the use of internet, mobile devices, desktop computers, search engines, social media and other digital technology platforms to promote products and services. This paper explores the various domains of digital marketing channels such as social media marketing, e-mail marketing, display Ads, Video advertising, content advertising, SEO, paid search and many more and also investigates its impact on the economy(Martin key)(2017). Thus digital marketing is all about making marketing strategy and utilizing digital technology to achieve marketing objectives. Digital Marketers uses the 5D's strategy for the promotion and advancement of a product or brand:

Devices

The first D is digital devices. Audiences experience brands as they interact with business by means of smart phones, tablets, desktop computers, TVs and gaming devices.

Digital Platforms

The second D is digital platform. Communication on these devices are through a browser or apps from the major platforms or services i.e Facebook, Instagram, Google, YouTube, Twitter and LinkedIn.

Digital Media

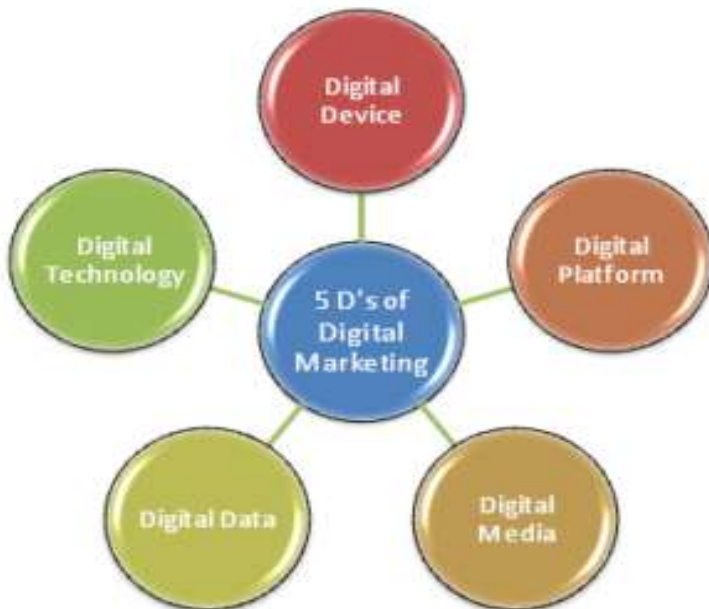
The third D i.e. digital media is the paid, earned and owned connectivity channels for reaching and engaging audiences including advertising email and messaging, search engines and social networks.

Digital Data

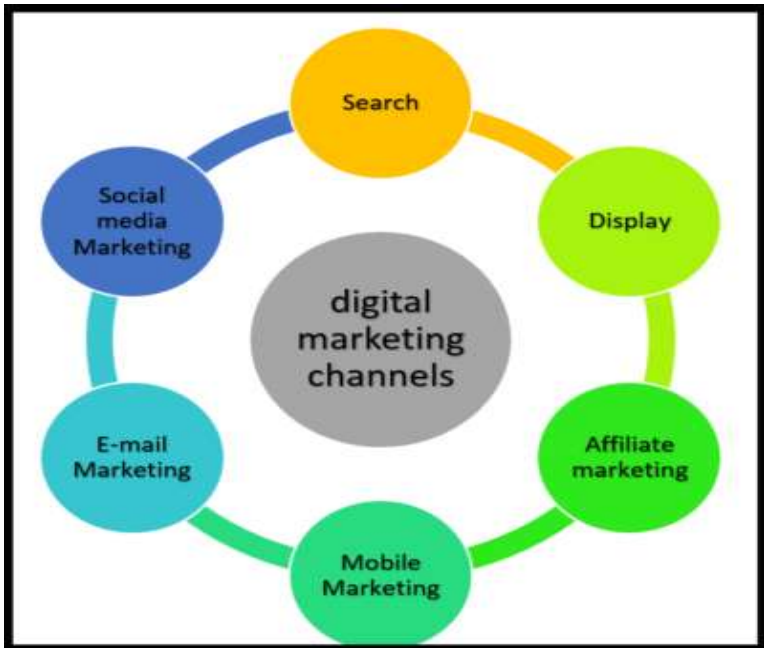
The second last D is digital data i.e. businesses collect about their audience profiles and their interactions with businesses, which now needs to be protected by law in many nations.

Digital Technology

The last D is the digital or marketing technology that businesses uses to create interactive experiences from websites and mobile apps to in-store kiosks and email campaign.



Channels of Digital Marketing



Video Marketing

Video Marketing is also known as Video Advertising. It is one of the best ways to communicate information to different users as video content has more impact on human brain than text. Video helps in providing better content on launch of new products, awareness on brand history and loyalty of clients. Today's era with the introduction of advertising has given new trends to digital marketing. It helps companies to get better return on investment on advertisements through digital marketing. Video marketing creates competition environment among advertisers as endless number of advertisements are available. Customers prefer videos that are short and have valuable content and also grab attention. The most commonly used video advertisement format is pre-roll. Its contents are shown before

user has selected to view the content. There is availability of many different models which includes: cost per thousand impressions (CPM) and cost per view (CPV). These are performance based campaign as advertisers pays only when visit to video is actually made. Social media sites have provided the facility of “hyper target” to segment an audience with specific buying habits and demographic data (Huebner) (2019). Digital Advertising has provided the new possibilities to the marketers for introducing their products and services to all the different channels.

Websites

One of the most important channels in digital marketing is development of websites. Digital Marketing is also named as online marketing with the help of websites. Digital marketing gets started with the development of website. It is one of the ways of presenting one’s business. Business is visualized by people on the basis of the presentation of the website. A well designed and user friendly website plays an important role in the success of business. The main characteristics of the website should include its layout, personalization, rewards, shipping, interactivity, pricing and its return policy. Personalization and graphics are the features which attracts the attention of the users (Smith) (2011). Website helps in building healthier relations with clients through e-mails, live chat etc. Website helps in improving both product and service based business. It takes a lead by providing awareness on sales and brands of the product. Marketing through website channel helps in reduction of cost and enhances the reach to the customer. It helps in maintaining the database of the customers and analyzes their behaviors by sum up of their varying intensities in buying products (Yasmin et al.) (2015). The review of the website should be done while designing the website so that it includes different factors like conversion rate, responsiveness, SEO, brands, speed of loading the pages. Efficient techniques of digital marketing and representation of websites helps business to

sites in their listings. (3) Paid Placement technique which means to buy display positions at the listing area. It is also known as Sponsored Links (Pan et al.)(2010). Search engines are deployed to provide vast amount of information with the help of different factors like web content, link structure, time of loading, updating frequency, feedbacks from users and many more. Representation of huge amount of information with indexing and ranking is very challenging for search engines. Google is one of the most widely used search engine with more than one trillion web pages. Search is made by users by search queries which are short group of words that intent to find users information needs their goals and behaviors such as depth and length of words and changes made in search features over time. SEM when implemented properly is one of the efficient and properly developed strategies of the today's market.



Mobile Marketing

Mobile marketing is a recent and advanced form of marketing communication using mobile communication technology to promote goods, services, and ideas. Mobile marketing is a multiple channel, digital marketing strategy aimed at reaching a target audience using their smart phones, tablets, and other mobile devices, via websites, email, SMS and MMS, social media, and apps. Mobile marketing is advertising activity in which technology can be used to create personalized promotion of goods or services to a user who is steadily and regularly connected to a network. The marketing instrument provides anytime and anywhere interaction, location and situation dependency, targeted addressing of consumers, and inherent measurement of campaign effectiveness (Pousttchi) (2010). Mobile marketing may include communication through SMS, text messaging, MMS multimedia messaging, through downloaded apps using push notifications, through in-app or in-game marketing, through mobile web sites. Proximity systems and location-based services can alert users based on geographic location or proximity to a service provider. The mobile channel is ideal for building a real one-to-one relationship with the individual customer (Scharl et al.) (2005). It helps in creating personal contacts with audience, thereby building consumer relationship and promotes product and brand awareness among them.



Display Advertising

Display advertising is one of the ways of advertising a commercial message by using videos, graphics, animation, logos and text. It is used to target frequent users of a website with the help of digital medium platforms. It is also popular as way of attracting users for a specific action. It is for the first time in 2013 in United States that the digital advertising industry seems more effective than the traditional method of advertisement. Advertisers can easily get deeper understanding of the behavior of online users. Results drawn from observational data concludes that display ads have more impact on the behavior of customers (Ghose et al.) (2016). Display advertising system involves many players, channel for selling and also features of advertising market. It is a double sided market in which advertisers display their ads on publisher's websites to reach target users. This further returns the valuations to the advertisers for their products with the higher impressions. These display ads are sold via two channels that are guaranteed and non-guaranteed. (i) Guaranteed selling method –In this method both the players negotiate for the fixed price in accordance to how, when and where the ads will get displayed. (ii) Non Guaranteed selling method – this is the real time buying method which depends on buying decisions of the users (Choi et al.) (2019).

Display ads are charged on the basis of cost per click (CPC). It is the method in which the number of clicks on the ad determines the amount advertiser will get from the publisher based on their bidding strategy. Display ads should include some features to make them highly visible. These are pop-up, audio-video stream, interactivity, takeover to display content, background music, full page display for the banner ad and so on (Goldfarb et al.) (2011). Display ads offer many advantages which includes diversity in representing ads in variety of styles and formats. It helps in reaching and targeting millions of people in accordance to their interests. It is also measurable as it helps in keeping track of number of clicks which helps in analyzing its performance. So it helps in evaluating long term brand campaign performance and to set optimized objectives.

Social Media Marketing

Social Media Marketing, a subset of Internet Marketing focused on the usage of social media platforms such as Face book, WhatsApp, MySpace, Twitter, YouTube, Instagram, and Pinterest, LinkedIn etc. Similarly, other social media like Blogs create a platform to post comment on any event which needs to be publicized also can be utilized as a promotional technique for customer's adoption as well as for promotions. These media has a competitive edge over other popular public media like Television because there is a time gap between social event occurrence and the time it is being broadcasted. (Bajpai et al)(2012). It includes activities like posting text and images, videos, and other content that drives audience engagement. Customers prefer to share music, technological-related, and funny contents on social media platforms (Erdoğan) (2012). These programs concentrate on developing a content which will attract the attention of the readers in social media and make them to share the contents in their social networking site. It helps in increasing exposure, traffic, improved search rankings, generated leads and reducing marketing expenditure. (Surenderkumar)(2016)Social media

marketing is a powerful tool for businesses to reach prospective customers thereby increasing the sales and building brand image.



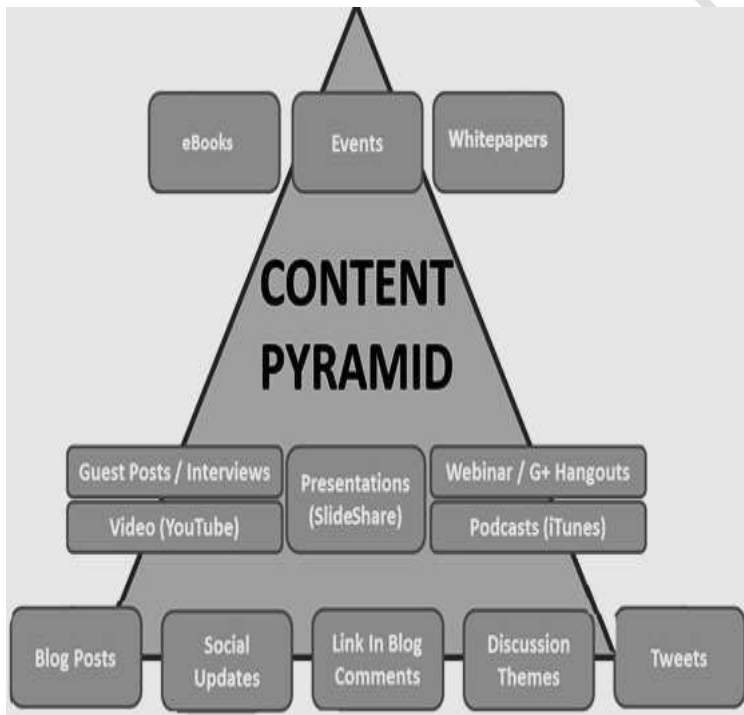
Email Marketing

E-mail allows an active, interactive and personalized communication fulfilling the preferences of an empowered consumer. It is a means of sending messages, text, documents, data sheets and is an important method of business communication that is very quick, fast, cheap easily accessible and easily replicated. Email marketing, a segment of internet marketing refers to promoting the products through the use of email to send *advertisements*, request business, or solicit sales to databases maintained by the marketers. It means direct mail done electronically instead of through the postal service. Email marketing is the ideal tool for introducing a new product, service, brand or even the company itself. The message sent by the company ends up in the inbox of the client and from here, with just a click, it has the possibility of being forwarded to other people and thus extending the reach campaign in an unimaginable way. Email marketing is an immediate tool that allows companies to target specific customers, capturing new customers, and building long term relationships with them. E-mail marketing can be used to empower consumers by sending e-mails based on permission, by making

consumers active participants in the communication process and by making e-mails relevant for the recipients. However, current e-mail marketing strategies need to be updated to get the maximum benefit out of the channel (Hartemo) (2016).

Content Marketing

Content Marketing is one of the approach of marketing that focuses on the creation and distribution of the beneficial, pertinent and compatible content to fascinate and retain the target users online.



It is just like an umbrella activity that includes many strategies and techniques to attain business goals. To retain, attract and maintain the customers it provides useful content to the customers. Content uses videos, podcasts, blogs and many Social Media to serve its target users. Today the web serves as a pull

market as it pulls the targets to the popular websites by using digital channels such as search engine optimization and other media. Pull markets are also known as inbound digital marketing which actively engage customers towards their brands to pull out their sale. It includes both B2B as well as B2C marketing. In B2B it makes the usage of online media to promote interaction among brand communities (Holliman et al.) (2014). Business needs the content marketing to avail some benefits. (i) Change in the behavior of buyer. (ii) Reach to the more number of buyers is possible than traditional marketing. (iii) Customers are much more aware so quality of content matters a lot. (iv) No more reliance on the middleman for selling the products as business can by itself becomes publisher and can have more knowledge about the preference of customers. (v) Business has greater knowledge of their content so they themselves can represent the information in a fine way than any other (Duc) (2013). To implement effective marketing content marketing can help in the following ways.

Localization

Publishers should alter the contents according to the need of culture and must ensure relevance of the information as per the image of brand.

Personalization

It helps marketers in creation of personalized contents that are in accordance to the consumer. It individualizes the experiences of consumers and also they can share it with other communities as they all are connected.

Emotions

It is related to the emotions of the customers. Customers are more entailed towards the contents that effects their emotions

Diversification of Approach

Customers easily get fed up by reading same posts again and again so there is a need of diversification which can be added up by creative contents which are more entertaining.

Co-creation and Trust

Cooperation from different customers helps the organizations to develop new ideas and adding up it to their new products which leads to the better relations with the customers and also helps in minimizing risk (Kee et al.) (2015).

Challenges faced in Digital Marketing

The day- to- day progress in the field of digital marketing has attracted large number of retailers to boost their business through online sources worldwide. India is second most populous country and it has well established ecommerce industry. But still India is facing many problems in ecommerce industry.

Some of the Challenges of Ecommerce Industry Are

Low Internet Penetration

Internet penetration is quiet low in comparison to many well established countries. There is also a problem of poor connectivity problems in certain regions.

Lack of Knowledge

One of the major problem India is facing of digital illiteracy. Majority of people are unaware of the internet facilities. Very few people are aware of online frauds and corruption.

Cash on Delivery

Many people prefer cash on delivery and have low trust on online transactions which has proved to be a huge loss and has increased the expenses of many companies. Certain judicial steps are needed to be taken against it otherwise it will be a threat to the ecommerce industries.

Privacy and Security Concern

Most of the business entrepreneurs prefer unauthorized software's due to the limitations of budgets. This pirated software's leads the room for viruses, malwares and risks the online transactions which reveals sensitive details of the user's financial transactions.

Tax Structure

Taxation system of India is also one of the factors that hinder the growth of ecommerce in India. Tax rate is not uniform as it varies from one sector to another. Most of the developed countries have uniform tax structure. That's why India is facing the problem of accountability for online companies.

Touch and Feel Factor

Indian customers prefer to physically buy the products. So many trading products like handicrafts, jewellery etc has to face many challenges for their survival as customer's wishes to touch and feel the stuffs (Kalambe) (2019).

Conclusion

Digital marketing is a dream business project for digital marketers. Digital marketing may fulfill all cherished dreams within the short span of one's life. Digital marketing is a place where anybody can make his or her career without so much effort. New technologies in digital marketing have moved a great deal. Digital marketing is perfect advice for the world. It's good enough because it never sits on the network. The goods will only be available to the public for 24 hours. The growth of the digital market means that numerous brands can meet their consumers quickly. Through digital marketing, given geographic barriers, one can expand your customer's scope to other countries. Additionally, it allows advertisers to analyze and audit their quality content online. Businesses can really benefit from Digital Marketing such as search engine optimization (SEO), search engine marketing (SEM), content marketing, influencer marketing, content automation, e-commerce marketing, campaign marketing, and social

media marketing, social media optimization, e-mail direct marketing, display advertising, and are becoming more and more common in our advancing technology. We all are connected through Whatsapp and facebook and the increasing use of social media is creating new opportunities for digital marketers to attract the customers through digital platform. Awareness of consumer's motives is important because it provides a deeper understanding of what influences users to create content about a brand or store. Digital marketing is cost effective and having a great commercial impact on the business.

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Impact of Digitalization on India's Economy

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Abstract

World has become a hub of connected networks, technology and newly invented & innovative equipments & gadgets. India being a growing economy has also joined this race and initiating new programmes under the flagship of Digital India Programme. This campaign aimed to strengthen and empower the people not only in urban areas but efforts are being made to connect rural areas with high speed internet network and emphasis has been given on digital literacy. After digitalization, maximum communication and transaction will be done through internet. So, in this modern era, there is an immense need for the digital financial literacy and knowledge enrichment for technological advancement. This paper presents the impact of digitalization on Indian economy and further highlights the initiative taken by Government of India for strengthening the pillars of digital India programme. Further, it also presents the budgeted expenditure on digital India programme for last six years.

Keywords: Digitalization, E-Governance, Mobile Connectivity, Digital Literacy.

Introduction

India has been proving itself for being a fastest growing economy and for this mission a number of milestones have been placed in the history of different governments. India has proved this many times by taking key decision like adopting changes from being self-reliant to opening its door with open arms for global trading by allowing LPG (Liberalization, Privatization and Globalization) in 1991 under the then Finance Minister Mr. Manmohan Singh and also incorporated many economic reforms for the creation of efficient and stable financial institutions and development of the markets. With the passage of time there are many changes that entire world is facing in terms of requirements and facilities. It will be not wrong to say that technology is the key driver and facilitator in promoting and creating infrastructure and services in all most all sectors and there is a rapid advancement in this area in the recent years. India is also not untouched with this drastic changing environment and also joins hands with the rest of the world in adopting this advancement.

Digitalization is the result of this rapidly changing environment and keeping this vision in mind the Honorable Prime Minister Narendra Modi had taken initiative on 1st July, 2015 towards “making India Digital”. This campaign focused on the agenda of connecting rural areas with high speed internet network and also emphasized on the digital literacy. Since then, a rising trend can be seen in digital financial transaction and also created the need for digital financial literacy too. This dream project is based on objective of driving innovation, providing access of information to all citizens, making governance transparent, providing governmental services easily & efficiently available to all on their mobiles, making quality education available in online mode to all its stakeholders and facilitating all the sectors in all the regions. The digital India

programme will make a digitally enabled society and will promote learning economy by bringing together several existing schemes and if required by restructuring them and also by introducing new schemes.

Impact of digitalization can be judged on the basis of changing government policies, transformation in society, adoption of new business models, new modes of online education, innovative marketing strategies, improving demand of customers in terms of mobile apps in various areas etc. However, the fastest and increasing use of digital technology determine the level of digitization and proved that it has positive impact on reducing unemployment and uplifting the quality of life. It has become a blessing for the agriculture sector also where a number of initiative have been taken to make available relevant information and services to the farming community and private sector through the use of information and communication technologies

The rest of the paper has been structured in the following manner: Section II describes the objective of the study. Further, section III and IV discusses the methodology adopted and available literature in this area. The next section highlights the pillars of digital India programme. Afterwards, section VI shows initiatives taken by Government of India for making this dream project a reality. The section VII presents the budgeted expenditure on digital India programme. Finally, section VII concludes the study.

Objective of the Study

1. To discuss the impacts of digitalization on Indian economy
2. To highlight pillars of digital India
3. To show initiatives taken by Government of India under digital India programme
4. To present the trend of budgeted expenditure of Government of India on digitalization

Research Methodology

This is a descriptive study and secondary data has been used for discussing the various parameter of digitalisation. Further, union budget of Government of India from 2015-16 to 2020-21 has been considered for presenting the trend in the amount spent on digital India programme.

Review of Literature

A great work and quality research have been done in the area of digitalization and the few of the key studies have been discussed here:

Aditya Sharma (2015) discussed the concept of digital India and explained the nine pillars of digital India which are framed for implementing the different schemes and ideas of digital India programme.

Aiswarya Vijayan (2019) explained the impact of Digital India in economy and to know how far its missions are accomplished and for developing a model to achieve Sustainable Development Goals with the pillars of digital India.

Shekhar Srivastava (2017) emphasized that citizens are getting engaged in the innovation process which is necessary for the economic growth and sustainable development of the country. In order to realize the full potential of this programme, it is necessary to address certain challenges in the way of its successful implementation like digital illiteracy, poor infrastructure, low internet speed, lack of coordination among various departments, issue pertaining to taxation etc. The author further explained that if implemented properly, it will open various new opportunities for the citizens of the country and therefore it requires a lot of efforts and dedication from all departments of government as well as private sector considering the current status of the programme.

Deity (2015) presented a detailed overview on Making of Digital India, how digital India will be released. It further explained the

pillars of digital India and threw light on the programme management structure.

Samita Kher et.al, (2016) strived to analyze the awareness among the youth about the Digital India initiative. The study elaborated that digitalization came as a dream project of the Indian government to remodel India digitally. This aim would be very difficult to achieve unless there is awareness amongst the people.

Saima Khan et. al, (2015) highlighted the concept of digitization along with the social economic and ecological benefits of digitization of knowledge and information. The author specified that Digitization is a process of converting the diverse forms of information, such as text, sound, image or voice into digitalized format. The digitization has a proven impact on economy and society by reducing unemployment, improving quality of life, and boosting access to knowledge and other public services. The process of digitization is marked by cost effectiveness to cut the cost that incurred in various knowledge practices related to the production, organization and communication of information that makes long-term economic growth.

Ulrike Stefanie Foerster-Metz (2018) analyzed the impacts of digital technologies on organizational behavior by providing a literature review and structuring it by technology and implication. The article is structured in three parts: first of all the definition of Organizational Behavior and digitalization were reviewed to establish a theoretical framework, followed by the analysis of the impacts and effects of the digitalization on leadership and employees, and finally the findings were summarized in a structured scheme.

Nine Pillars of Digital India Programme

The digital India programme has its strength and potential in different growth areas which are required to ensure that Government's services are made accessible to citizens electronically by superior online infrastructure and by ever-increasing internet

connectivity and moreover by making the nation digitally empowered in the field of technology. With this aim, nine pillars have been introduced on which 'Digital India Programme' has been built up. The Figure 1 presents these nine pillars of digital India:

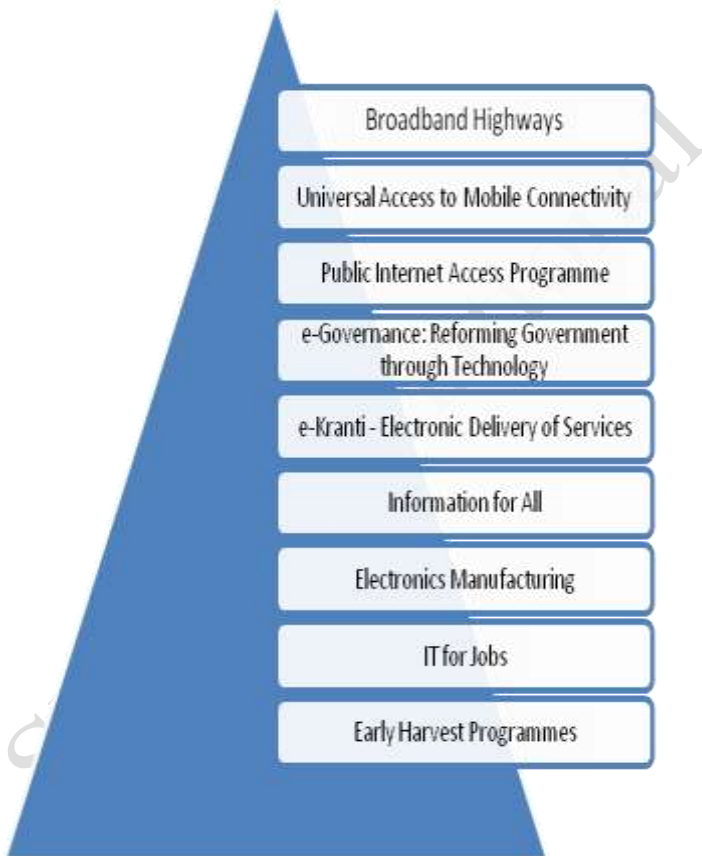


Figure 1: Pillars of Digital India

Initiatives by Government of India under Digital India Umbrella

The dream project of Hon'ble Prime Minister Shri Narendra Modi is spreading its wings in not only in national boundaries but has started capturing the rest of the world also. The Ministry of Electronics

and Information Technology (MeitY) has covered a remarkable journey to promote digital India programme. The several schemes, and campaign have been launched and infrastructure has been created for facilitating e-Governance for empowering citizens, promoting the inclusive and sustainable growth of the Electronics, IT and ITeS industries in implementing the digital India programme. The Table 1 presents the key initiatives of Government of India for promoting digitalization:

Table No. 1: Initiatives under Digital India Programme

S.N.	Name	Website	Purpose
1.	Aadhaar Enabled Payment System (AEPS)	http://npci.org.in/home.aspx	One can perform basic banking transactions by using Aadhar as identity.
2.	AADHAAR	https://uidai.gov.in	Under this a unique identity is provided to each resident of country.
3.	BPO Scheme	https://ibps.stpi.in/	This is uses for creation of employment opportunities.
4.	DIGILOCKER	https://digilocker.gov.in/	This is a digital wallet.
5.	Digital Saksharta Abhiyaan (DISHA)	http://www.ndlm.in/	This is used for imparting training to 52.5 lakh persons, including Anganwadi, ASHA workers and authorised ration dealers in all the States/UTs across the country.

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6.	DIGIDHAN ABHIYAAN	https://digidhan.mygov.in/	It will facilitate real time digital transactions.
7.	Jeevan Pramaan	https://jeevanpramaan.gov.in/	This service is used for pensioners of Centre, State or any other government organization.
8.	MYGOV	http://mygov.in	This is an interface for exchange of ideas between government and common man.
9.	National Mission on Education Using ICT	http://www.nmeict.ac.in/#	This scheme will be used for extending the use of ICT in learning process of Higher Education Institutions.
10.	North East BPO Promotion Scheme (NEBPS)	http://meity.gov.in/nebps	This is used for creation of employment opportunities for the youths and growth of IT-ITES Industry specifically in north east region.
11.	OPENFORGE	https://openforge.gov.in/	This will create open collaborative development of e-governance applications.
12.	PAHAL (DBTL)	http://petroleum.nic.in/dbt/index.php	A beneficial digital service for the elimination of duplicate LPG connections.
13.	PAYGOV INDIA	http://paygovindia.gov.in/	A payment gateway interface for online payments.
14.	Pradhan Mantri	https://www.pm	It will create digital literacy

	Gramin Digital Saksharta Abhiyaan (PMGDISHA)	gdisha.in/	in rural areas across states for around six crore persons.
15.	PRADHAN MANTRI JAN-DHAN YOJANA (PMJDY)	http://pmjdy.gov.in/	A National Mission on Financial Inclusion of all the households in the country.
16.	PRADHAN MANTRI KAUSHAL VIKAS YOJANA (PMKVY)	http://www.pmkvyofficial.org/In dex.aspx	This scheme will facilitate industry-relevant skill training for securing a better livelihood
17.	SMART CITIES	http://smartcities.gov.in/content/	This scheme will promote sustainable and inclusive cities for facilitating decent quality of life.
18.	Accessible India Campaign and Mobile APP	http://accessibleindia.gov.in/content/	It will give access of equal opportunity to people with disability, so that they can live independently.
19.	AGRIMARKET APP	http://mkisan.gov.in/downloadmobileapps.aspx	It will help farmers.
20.	BETI BACHAO BETI PADHAO	http://wcd.nic.in/BBBPScheme/main.htm	This campaign will eliminate discrimination with the girl child.
21.	BHIM (BHARAT INTERFACE FOR MONEY)	http://www.bhimupi.org.in/	A payment app for easy online transactions.

22.	Crime And Criminal Tracking Network & Systems (CCTNS)	http://www.ncrb.gov.in/BureauDivisions/CCTNS/cctns.htm	This is for adopting e-governance and enhancing the effectiveness of policing.
23.	HIMMAT APP	http://54.169.6.175/#	This is an initiative by Delhi police as emergency service especially for women.
24.	Khoya Paya	http://khoyapaya.gov.in/mpp/home	This website is used for exchanging information on missing and found child.
25.	KISAN SUVIDHA	http://www.kisanavidha.com/	It will help farmers for getting relevant information.
26.	MKAVACH	https://cdac.in/index.aspx?id=cseps_mkavach	This is a comprehensive mobile device security solution protecting mobile device resources.
27.	National Career Service Portal	https://www.ncs.gov.in/	This portal is developed for connecting opportunities with the expectations of youth.
28.	National Ujala Dashboard	http://www.ujala.gov.in/	This is developed for spreading the message of energy efficiency in the country.
29.	National Voters Service Portal (NVSP)	http://www.nvsp.in/	This facility will provide single window service electors.

30.	Nirbhaya APP	https://play.google.com/store/apps/details?id=com.smartcloud.nirbhaya&hl=en	It will help a women or any other individual in case of emergency and will enable her for sending message to a particular group or contact.
31.	Startup India Portal and Mobile APP	http://www.startupindia.gov.in/	This will empower startups to grow through innovation and design.
32.	SWATCH BHAARAT APP	https://swachhbharat.mygov.in/	To achieve the dream of a 'Clean India'
33.	SWAYAM	https://swayam.gov.in	It will create an IT platform for hosting all the courses, from 9th class till post-graduation which can be accessed by anyone, anywhere at any time.
34.	UDAAN	http://nsdcudaan.com/	This facility will through light on the needs of the educated unemployed in Jammu & Kashmir (J&K).
35.	UMANG	https://umang.gov.in	This mobile app will facilitate a single point of access to all government services.

Source: Compiled from <https://digitalindia.gov.in/di-initiatives>

Expenditure by Government of India for Promoting Digitalization

Huge amount has been spared in Union Budget of India every year on the digital India programme. The below mentioned Table 3 presents budgeted expenditure of MeitY for digital India Programme:

Table 3: Budgeted Expenditure of Government of India on Digitalization

	(In Crore of Rupees)					
	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Digital India Programme	407	1285.1	1672.76	3073	3516.76	3958

Source: Compiled from Expenditure Budget of Ministry of Electronics and Information Technology, Union Budget (2015-16 to 2020-21)

Since year 2015, there is an increasing trend in the expenditure on digital India programme. This is evident from the above table that during last six years i.e. from 2015-16 to 2020-21, the budgeted expenditure on this programme is increasing in each and every year. The increasing trend of budgeted expenditure is presented in the Figure 2.

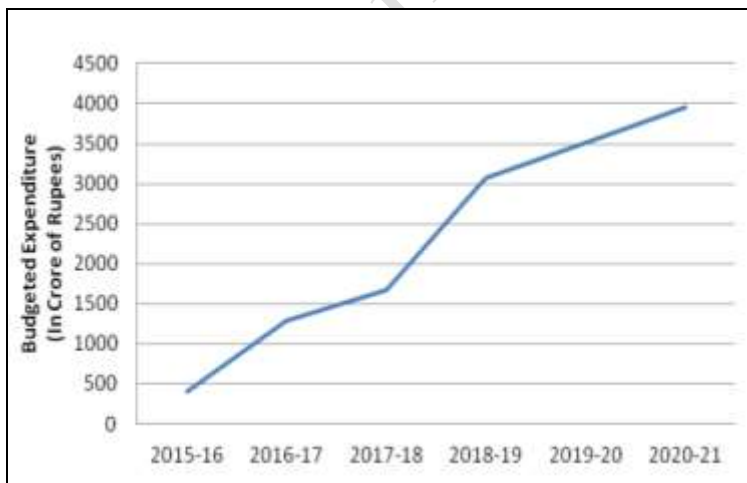


Figure 2: Trend of Expenditure on Digital India Programme

Source: Compiled from Expenditure Budget of Ministry of Electronics and Information Technology, Union Budget (2015-16 to 2020-21)

From the above chart, it is clear that the trend of this budgeted expenditure is rising in upward direction. It has touched the heights of Rs. 3958 Crores in the year 2020-21 from an amount of Rs. 407 Crores in 2015-16.

Conclusion

The success and failure of anything depends on its implementation and execution. So, dream project 'Digital India' will become only successful when all citizens and stakeholders give support to government in their different projects and campaign that are running under the flagship of digital India. Like a coin has two facets, digital India programme also has positive and negative impact. But we all have to join hands and uplift and grab the benefits that Indian economy can avail and moreover efforts should also be made to overcome the barriers in this direction. Digitalization will give fruitful results in making best future of every citizen of India and will turn the economy in rising mode.

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E-Retailing in India- Issues and Challenges

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Introduction

E-retailing refers to the selling of retail goods electronically over the Internet. The term is a short form for "electronic retailing", and emerged in 1990s for being frequently used over the Internet. E-retailing usually refers to the business-to-consumer (B2C) transactions. Online retailing is classified into three main categories:

Click

The businesses that operate only through the online channel fall into this category. Prominent examples in this category include: Dell, Amazon.com and e-Bay.

Click and Brick

The businesses that use both the online as well as the offline channel fall into this category.

Brick and Mortar

This is the conventional mode of retailing. The businesses that do not use the latest retailing channels and still rely upon the conventional mode belong to this category. E-retailing offers the consumers huge amounts of information in the form of web sites with

useful links to similar sites that allows consumers to compare products by looking at individual items. According to Google, India now have around 500 million internet users. Every year there is an estimated increase of 5 million internet users every month. This will enhance the accessibility of internet for common people. India is one of the markets which are witnessing growth in smart phone customers. The availability of cheap smart phone can enhance the growth rate in future. Access to 4G mobile data networks and availability of cheap smart phones can enhance the customer transaction using mobiles. Most of the online retailers are developing their mobile applications to enhance the shopping experience. Mobile banking is emerging in India which witnessed that Indian customers are gradually changing with respect to the way they do financial transactions. Credit, Debit cards and Net banking can facilitate quick and convenient transaction for customers which can augment the growth of e-retailing in India. With the emergence of secure transaction methods like two factor authentication, Time Passwords(OTP) and payment gateways, consumer's preference to shop and do financial transactions online has increased. This can enhance online retailing because of enhanced security and easiness in doing the transaction. Some of the retailers are providing the facility of cash on delivery options (COD) to customers those who are sceptical about the secure transactions in online platforms. Banks and ecommerce sites are taking proactive steps in enhancing on-line transactions by addressing security and other issues with respect to online transactions. The year 1991 noted a new chapter in the history of the online world where e-commerce became a hot choice amongst the commercial use of the internet. In the past nobody would have even thought that the buying and selling online will become a trend in the world and India will also share a good proportion of this success. 2002: IRCTC teaches India to Book ticket online India first came into interaction with the online *E-Commerce via the IRCTC*. The

government of India experimented this online strategy to make it convenient for its public to book the train tickets. 2003: Introduction of Low Cost Airline with Air Deccan After the unpredicted success of the IRCTC, the online ticket booking system was followed by the airlines (like Air Deccan, Indian Airlines, Spicejet, etc.). Airline agency encouraged, web booking to save the commission given to agents and thus in a way made a major population of the country to try E-Commerce for the first time. 2007: The Deep Discounted model of Flipkart. The acceptance of the ecommerce on a large scale by the Indian people influenced other business players also to try this technique for their E-businesses and gain high profits. Though online shopping has been present since the 2000 but it gained popularity only with deep discount model of Flipkart.

Key Drivers for e- retailing

1. Rising standards of living with consumers having high disposable incomes.
2. Availability of much wider product range as compared to traditional method.
3. Busy lifestyles, traffic jams and lack of time for offline shopping
4. Lower prices compared to brick and mortar retail driven by disintermediation and reduced inventory .and real estate costs
5. Increased usage of online classified sites, with more consumer buying and selling second-hand goods
6. Evolution of the online market place model with sites like Flipkart, Snapdeal etc.

Review of Literature

Spiller, P., Lohse, G. (1997) completed work on “A Classification of Internet Retail Stores”. Their work presents a classification of on-line retail stores based upon convenience sample of 137 Internet retail stores.

Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer and Wood (1997) suggest that a key difference between online and offline

shopping is the ability of online shoppers to obtain more information about both price and non-price information as a result of reduced search cost.

Morrison and Firmstone (2000). looked at the social function of trust and its implications for e-commerce. Massagli, M. (2000) studied "E-Tail V/S Retail: The Future of Downtown Regional Shopping Centre". The objective was to explore potential impacts of E-Retailing on place based shopping.

Persson, C. (2001). studied "Strategies for enhancing consumer interaction in electronic retailing".

Prassas, G., Pramataris. K., Papaemmanouil, O. (2001) studied Dynamic recommendation in e-retailing. Prassas, G., Pramataris. K. Papaemmanouil, O. (2001) studied Dynamic recommendation in e-retailing.

Gunnesson, T., Soderlund, K (2001).completed work on Creating competitive advantage in mature e-retailing market. The purpose of the study is to know the sources of advantage that make e-retailer offering better than competitors' e-retail offering.

CreChiang and Dholakia (2003) carried out a survey amongst 147 adults to examine consumers' intention to shop online during the information acquisition stage.

Kim, D., Yang, Z., Jun, M. (2003) have studied Customers' perceptions of online retailing service quality and their satisfaction. Colby, D. (2004). studied E-Retailing: The Real Story.

Plessis, P., Mostert, P., North, E. (2004) studied Period of Internet Usage: An Indicator of the Buying Behavior of Internet Users. Their objective of the study was to highlight some of the considerations and concerns of creating an E-Retail business.

Asim, M., Hashmi, Y. (2005) completed work on E-LOYALTY. The purpose of the study was to gain deeper understanding of how to create loyal customers on website.

Wang, M. (2005) has done a research on A study on B2C consumer behavior model from Department of Industrial Engineering and Engineering Management, National Tsing Hua University.

Rotem-Mindali, O., Salomon, and I. (2006) have studied The impacts of E-retail on the choice of shopping trips and delivery.

Sinha, P., Kar, S. (2007). studied An Insight into the *the Growth of New Retail Formats in India*. GBrown, B., Oleksik, G., Bisdee, D (2007). studied Consumer attitude review internet shopping.

Araghchi, S. (2007) studied Service quality, customer satisfaction, customer experience and behavioral intention in Iranian retail store. Tractinsky, N., Lowengart, O. (2007). studied Web-Store Aesthetics in E-Retailing: A Conceptual Framework and Some Theoretical Implications.

Mohanty & Panda (2008). Opines about retailing as a sector of India occupies important place in the socio-economic growth strategy of the country. India is witnessing retailing boom being propelled by increasing urbanization, rising purchasing power parity (PPP) of ever growing India's middle class, changing demographic profiles heavily titled young population, technological revolution, intense globalization drive etc. Joseph, M., Soundararajan, N., Sabu, S. (2008) studied Impact of Organized Retail on Unorganized Retail. Othman, N. (2008) studied Integrating consumer trust in building an e-commerce website. Delafrooz, N., Paim, L., Haron, S., Sidin, S., Khatibi, A. (2009). studied Factors affecting *students' attitude toward online shopping*.

Chari, A., Raghavan, M. (2010) studied Foreign Direct Investment in India's Retail Bazaar: Opportunities and Challenges. Dash, M. (2011) studied Next-Generation Retailing in India: an Empirical Study Using Factor Analysis with objective to find out the factors of next-generating retailing.

Nagesh (2011) describes that Indian retailing will see a sea of change in the next five years driving consumption boom never seen in the history of any country. From a drought situation we will see a flood of modern retail, So Indian retail will be on a steady ground of sustained growth year after year and thereafter.

Namita Bhandari and Preeti Kaushal (2013) in their study on online consumer behaviour using factor analysis and found the reasons for using online shopping like trust, information about the product and services, convenience, effortless shopping. N.S.D.C studied Human Resource and Skill Requirements in the Organized Retail sector. They have studied on mapping of human resource skill gaps in India till 2022. They have studied functional skill and soft skill required to operate the store. Along with that they have also identified gap. They found that projected human resource required in 2022 in retail industry will be 176,252,000.

Opportunities

The opportunities of E-tailing industry in India are as follows:

Convenience Factor

Normally, online stores are usually available 24 hours a day, and many consumers have internet access both at work and at home so it has led to the growth of 24x 7 on line retailing .

Price and Selection

One of the biggest advantages of online shopping is on-line price comparison of different products and services by the help of different types of search engine. Searching an online catalogue can be faster than browsing the physical catalogue of a brick and mortar store.

Payment Mode

With Plastic money, process of OTP etc, and the payment via online mode is now easier.

Market Research

Retailers can use their online presence as a tool to gain valuable customer information to forecast future customer demand.

Promotional Tool

On line retailing provides great opportunity for Indian companies to promote their businesses due to the wide reach of the internet, and the low cost.

Marketing Tool

On line retailing is also an effective channel to communicate with customers as the internet provides a two-way communication channel.

Delivery

Products can be delivered within few days and some products can also be delivered trans border, which may not be possible to import in case of physical purchase.

Product Comparison

Customers can compare the benefits of product without having to move from one shop to other. Most of the sites are providing this facility wherein shopper can choose the product which exactly suits him.

Cost and Time saving

Customer saves a good amount of time and money by shopping online.

Challenges

Customer Data Protection

E-Retailers face some risks to properly handle on their consumer data. The data related to the socioeconomic status of customers to their buying patterns and preferences will be easily available to the intermediaries.

Payment System Problem

People in India are not accustomed to the online shopping system and moreover the online payment system. Companies should

protect their system from hackers as customers often worry about theft of their personal information, such as a credit card number. Both technological and legal tools should be used to enhance the security of e-commerce.

Absence of Full Cost Disclosure

It is easy to compare the basic price of an item online but it may not be easy to calculate the full cost as additional fees such as shipping are often not mentioned.

Offline Presence

The customers of India should be assured that the online retailers are not only available online but offline as well. This gives them psychological comfort and trust. The concept of e-retailing or online retailing in India has not gained prominence as Indians prefer to touch the products physically before buying them.

Language Problem

Most internet retail shops use English as their mode of communication. English may not be understandable to the majority of the Indian population. To increase the customer base, content in the online retail shops should be provided in local language.

E-Retailing Prospects in India

The growth of E-Retailing will play an important role in bringing economic viability to many facets of the economy. It will provide both direct and indirect employment. E-Retailing has the potential to grow more than hundred fold in the next 7 years to reach a value of USD 76 billion by 2021. E-Retailing can provide employment to ~1.45 million people by 2021. Its growth will spur the creation of new capabilities and human skills in the areas of logistics, packaging, and technology. Additionally, such growth will promote the rise of service entrepreneurs who will have the potential to earn ~USD 7.5 billion, annually, by 2021. It will open up international markets for the SME sector and can become an important facilitator for the growth of the telecom and domestic air cargo industries.

Conclusion

There are several important lessons to be learnt in the transition from bricks and mortar retail to the e retailing. Retailers need to examine the viability of such a transition, and look into the synergies of using the new channel of e-retail. For retailers in India, online shopping is gaining recognition as it entails many benefits for them. Long-standing sustainability directly depends on factors like changes in the market, innovations and interactivity by market players.

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