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From the Desk of Chief Editor....

We are placing Volume 9, Issue 2 of the RVIM Journal of Management Research in the hands of academic experts and subscribers. The current issue of Journal contains original research papers on work life balance, estimation of investment requirements in Indian highways, eco-tourism, relationship with gold exchange traded funds and equity ETFS, evaluation of select investment styles, service quality of bank and perceived risk in car purchase. A two fold blind referral process is involved in selecting the papers for this journal. The research papers in the journal will enhance the knowledge and thoughts of the readers. This Journal would serve as a channel for knowledge sharing among academicians and practicing managers about contemporacy management issues and problems. The journal comprises papers on diversified issues, industry and intents to fulfill the information requirement of the researchers across the countries. We hope that the readers will thoroughly benefit from the papers being compiled in journal and give their valuable feedback to enhance the quality in our publications.

Dr. Purushottam Bung
Chief Editor

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The Chief Editor
R.V. INSTITUTE OF MANAGEMENT
CA 17, 26th Main, 36th Cross, 4th 'T' Blcok, Jayanagar, Bangalore - 560 041
Ph : 080-26547048, 42540300
Email : rvimjournal@gmail.com

INSTRUCTIONS FOR AUTHORS

RVIM Journal of Management Research invites original, research-based papers and cases in the area of Management. This journal publishes papers of interest to academicians and business practitioners. The journal will include papers that will widen the horizon in management thoughts. If the research work was presented in seminars the details of the same should be mentioned with acknowledgements to the reviewers. The guideline for contributor of manuscript is listed below:

Format

Manuscripts should normally be of about 5000-8000 words (10-20 A-4 size pages), typed double space, 12-point Font, in Times New Roman. Microsoft word for windows is preferred. Manuscript should be sent in duplicate with the coverage page bearing only the title of the paper and author's names, designations, official addresses and phone/fax numbers. American spelling to be followed in the manuscript.

Abstract of about 150 words with 3 to 5 key words should be prepared in a separate a sheet.

Tables and Figures

Each table and figure should be indicated by marginal notation where each table or figure should be inserted in the text.

References

References should be placed at the end of the manuscript. Arrange the reference list in alphabetical order of author's surnames. The author's surname is placed first, followed by initials, then the year of publication is given followed by details of the publication.

http://www.ilru.org/healtgwellness/healthinfo/wellness-definition.html

- Internet site:- URL:http//www.ipd.co.uk

Use of numerals

(5 percent), distance (5 km) or age (10 years old). (21st century)

Literature citations

Quotes should be cited accurately from the original publication and use double quotes. Apart from the author and year, page number should be mentioned for quotes (Dr. T.V. Raju 2005 pg 22)

Capitalization should be kept to the minimum and should be consistent.

Submission of manuscripts

Manuscripts sent for review should be original work which has not been previously published or submitted for publication elsewhere.

The name of the publication usually a book or journal appears in Italics.

Example:

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- **Journal:-** Keng, KA, Fung, K., & Writz, F. (2003). SEgmentation of library visitors in Singapore: Learning and reading related lifestyles. Library Management, 24(1/2), 20-33
- **Newspaper article:-** P R Sanjai (01.01.2008) Expect airlines to fly back into profit. Mint, The Wall Street Journal, Bangalore.
- Newspaper from Internet :- Chandran, R (2002, February 28). Branding India. The Hindu Business Line. Retrieved January 10, 2007 from http://www.blonnet.com/catalyst/2002/02/28/stories/2002022800010100.htm
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The Chief Editor
RVIM Journal of Management Research,
CA 17, 26th Main, 36th Cross, 4th 'T' Block, Jayanagar, Bagnalore – 560 041
Ph: 080-26547048, 42540300 ◆ Fax : 080-26654920 ◆ Email :

Sustainability of Banking Stocks in Investor's Portfolio through Risk and Return analysis of selected Banking Stocks in NSE

Divya U.*
Dr. Noor Firdoos Jahan**

Abstract

Risk and Return are two faces of the investment coin. The attitude of investors is they wanted to earn maximum return but they are not willing to take any risk. But practically risk and return goes hand in hand. Higher the risk, higher the expected return and vice versa. Risk is inherent in every investment decision and it is more certain in equity shares.Banking sector is the backbone of country's economy. Banking stocks are very commonly seen investment in one's portfolio. This sector has given very good return to the investors in the past. But the recent financial crisis, has proved, that the Banking stocks tend to be more volatile than other sector stocks. With this background we have undertaken a study on "Sustainability of Banking Stocks in Investor's Portfolio through Risk and Return analysis of selected Banking Stocks in NSE" The study is conducted by taking a sample of five banking stocks listed in Bank nifty namely SBI, PNB, ICICI, AXIS and HDFC. The Average Return and Beta were computed for these stocks for a period of 5years i.e.2012-13 and 2016-17.The main findings of our study was the selected banking stocks have less market sensitivity and market risk but these shares have failed to enhance value for their shareholders. This result really questions the appropriateness and sustainability of banking stocks in investor's portfolio.

Key words *– Return, Risk, Beta, Standard deviation, Bank, Stock*

Introduction

Investment is the commitment of current money and other resources to get future returns. Investment involves the sacrifice of current consumption in expectation of future benefits. In investment the commitment of funds takes place at present which is certain but the returns we receive in future which is uncertain. This feature of investment relates with Risk. The Risk is nothing but variability in returns. The Risk and return are two faces of the investment. Investor's main

* **Divya U.,** Assistant Professor, Adarsh Institute of Management & Information technology, Bengaluru, Email: divya.u12345@gmail.com

** **Dr. Noor Firdoos Jahan,** Professor, RV Institute of Management, Bengaluru, Email: noor.firdoos@gmail.com

objectives in Investment are to Maximize Return and minimize Risk. But Risk and Return goes hand in hand. Higher the risk higher the expected return and vice versa. But investors always wanted to earn highest return but they are not willing to take any risk. Return is the reward for undertaking an investment. The return of an investment consists of two components they are current return and capital return. The formula used for calculating daily returns is

$$\text{Daily Returns} = \frac{Pt - Pt\text{-}1}{Pt\text{-}1} * 100$$

Holding period return=

$$\text{Dividends} + \frac{Pt - Pt\text{-}1}{Pt\text{-}1} * 100$$

Average daily returns = sum of daily returns/ number of observations

Annualized returns = average daily return * number of trading days

Pt = current price, selling price

Pt-1 = previous price, purchase price

Risk is inherent in every investment alternative and it is very much certain in an investment like Equity share. Equity is one of the High risk and high return category of investment. In equity shares the dividend is not fixed and it depends on the profit of the company and the payment of dividend is also not compulsory. So the current yield on equity shares is not fixed. The capital return on equity depends on the state of stock market whether it is in bullish or bearish condition. All these feature of equity shares makes it a high risk asset for investment. The risk of equity shares can be classified into Market risk(systematic risk) and company risk(unsystematic risk).The market risk of a security is that portion of total variability in return caused by economic, political and social factors such as interest rates, inflation, business cycle etc. These factors affect all the stocks in the stock market to a more or less extent and this risk is non diversifiable in nature. The investors have to bear this market risk. The market risk of an equity share is measured by computing its Beta. Beta is a measure of the volatility or systematic risk of a security or a portfolio in comparison to the market as a whole. Beta measures the sensitivity of stock return to market index movement. Higher the beta value higher the market risk of security and vice versa. Usually the stocks with beta less than one are considered less risky securities and beta more than one considered as high risky securities. If beta of a security is equal to one that security moves in tandem with market sensex. Beta is used in the capital asset pricing model (CAPM), a model that calculates the expected return of an asset based on its beta and expected market returns.

Beta= covariance ($R_{a,}R_m$) / Variance(R_m)

The company risk or unsystematic risk is the risk arising due to company specific factors such as introduction of new product, high profit, labor strike etc.

These factors affect only that specific company stocks and not overall stock market as such. The company risk is diversifiable in nature. Through a proper diversification of securities by investing in different sectors and by constructing an optimum Portfolio investors are able to diversify the company risk of their equity shares. The basic idea behind portfolio construction is "Do not put all eggs in one basket". The investors instead of investing their all funds in one company or one sector it is better to diversify their funds in different sectors like Banking, Pharmacy, FMCG, Steel, IT, Infrastructure, Hospitality, Retail etc.

The commonly seen stocks in any investors portfolio is Banking stocks because Banking sector is the backbone of Indian economy and banking sector stocks are commonly traded stocks NSE and BSE. With the potential to become the 5th largest banking industry in the world by 2020 and 3rd largest by 2025 according to KPMG-CII report, India's banking and financial sector is growing speedily. The Indian Banking industry is presently worth Rs.81 trillion (US $1.31 trillion) and banks are now employing the modern technologies like internet and mobile devices to carry out dealings and interconnect with the masses. Presently Indian banking sector comprises of 26 Public sector banks, 20 Private sector banks and 43 Foreign banks along with 61 Regional rural banks (RRB's) and more than 90,000 credit co-operatives. This sector has given very good return to the investors in India in past. But the recent financial crisis, has proved, that the Banking stocks tend to be more volatile than other sector stocks. With this background we have undertaken a study on sustainability of banking stocks in investor's portfolio through Risk and Return analysis of selected banking stocks from NSE.

Objectives of the study

1. To gain knowledge about Risk and Return analysis of Equity shares.
2. To compute the Average return and Market risk (Beta) of selected banking stocks.
3. To evaluate the Sustainability of banking stocks in investor's portfolio through its risk and return analysis.

Research methodology

The descriptive method of research was adopted for the study. A sample of five banking stocks listed in Bank Nifty were purposefully selected based on the highest revenues generated by those banks in the past five years. The selected banking stocks include State Bank of India (SBI), Punjab National Bank (PNB), Industrial Credit and Investment Corporation of India (ICICI), Housing Development Financial Corporation (HDFC) and AXIS bank.The study was mainly based on secondary sources of information.

The analysis was based on unit price and bench mark information collected from NSE web site. The return and market risk of the banking stocks were analyzed by computing average return and beta for five year period by considering the stock prices and bank's nifty movements for a period between 2012-13 and 2016-17 (1st April to 31st March).

Review of Literature

Banz (1981) examines the empirical relationship between the return and the total market value of NYSE common stocks. It is found that smaller firms have had higher risk adjusted returns, on average, than larger firms. This 'size effect' has been in existence for at least forty years and is evidence that the capital asset pricing model is misspecified.

Stephen & Penman(1989) performed a financial statement analysis that combines a large set of financial statement items into one summary measure which indicates the direction of one-year-ahead earnings changes. Positions are taken in stocks on the basis of this measure during the period 1973–1983, which involve canceling long and short positions with zero net investment.

Jagadeesh & Titman(1993) studied strategies forbuying stocks that have performed well in the past and selling stocks that have performed poorly in the past. They found that the profitability of these strategies are not due to their systematic risk or to delayed stock price reactions to common factors

Mukherjee & Naka (1995) investigated the relationship between Tokyo stock prices and six macro economic variables using a vector error correlation model (VECM). Their study showed that the relationship between Tokoyo stock prices, the exchange rate, money supply and industrial production is positive. Whereas the relationship between Tokyo stock prices and inflation and interest rate mixed.

Brad, John & Lyon (1997) analyzed the empirical power and specification of test statistics in event studies designed to detect long-run (one- to five-year) abnormal stock returns. They documented that test statistics based on abnormal returns calculated using a reference portfolio, such as a market index, are misspecified (empirical rejection rates exceed theoretical rejection rates) and identify three reasons for this misspecification.

Green wood (2005) studied a cross sectional analysis of the excess co movement of stock returns using Nikkei 225 index Japan. He found that a strong positive correlation between overweighting and the co movement of a stock with other stocks in the index, and a negative relationship between index overweighting and co movement with stocks outside the index. He concluded that overweighed stocks have high betas.

Baele, Bekaert & Inghelbrecht (2007) studied the economic sources of stock-bond return co movement and its time working paper Variation using a dynamic factor model. They identified the economic factors employing structural and non-structural vector autoregressive models for economic state variables such as interest rates, (expected) inflation, output growth and dividend payouts.

Dutt & Mihov (2008) anaysed the stock market co- movement and industrial structure, they studied monthly stock market indices for 58 countries to construct pairwise correlations of returns and explain these in the industrial structure across countries. They found that countries with similar industries have stock markets that exhibit high correlation of returns.

Meric ,Patil &Meric(2011) studied the co movement of the Indian stock market with other stock markets and its implications for portfolio diversification with respect to the effects of 2008 global financial crisis.. They found that there is considerable time varying volatility in the correlation of the Indian stock market with the other stock markets. The trend analysis results showed the correlation between Indian stock market and other national markets increased substantially and the benefit of global portfolio diversification decreased considerably post crisis period.

Zheng (2014) investigated linkage between aggregate stock market investor sentiment and commodity future returns and found that there is negative relationship between investor sentiment and commodity future returns. The author concluded that commodity futures are excellent investment vehicle during stock market pessimism.

Giradri(2015) studied about correlation of agricultural prices with stock market dynamics and found that the correlation between agricultural prices and stock market returns tends to increase during periods of financial turmoil. The impact of financial turmoil on correlation gets stronger as the share of financial investors in agricultural derivatives market raises.

DATA ANALYSIS

I. Returns of Banking Stocks

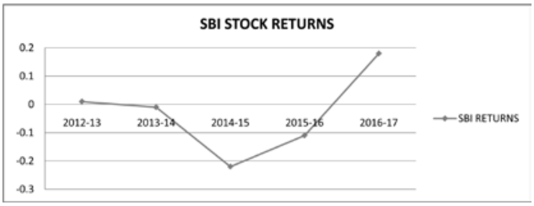
Table No- 1 Average Return of State Bank of India (SBI) stocks

YEARS	AVERAGE RETURNS
2012-13	0.01
2013-14	-0.01
2014-15	-0.22
2015-16	-0.11
2016-17	0.18
TOTAL	-0.15

Source:Author

Total average returns of 5 years =
-0.15/5 x 100 = -3%

Graph No:1



Analysis

The maximum return of SBI Stock was 18% in the year 2016-17 and minimum return was in 2014-15 .i.e.,-22%.The average return for 5 years of State Bank of India (SBI) is -3% which is a negative return. SBI stocks did not gave good returns to investors.

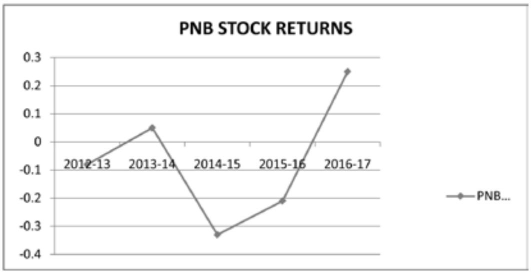
Table No 2: Returns of Punjab National Bank (PNB) Stocks

YEARS	AVERAGE RETURNS
2012-13	-0.08
2013-14	0.05
2014-15	-0.33
2015-16	-0.21
2016-17	0.25
TOTAL	-0.32

Source: Author

Total average returns of 5 years =
-0.32/5 x 100 = -6.4%

Graph No :2



Analysis

The highest average return of Punjab National bank was in the year 2016-17 .i.e.,25% and the lowest return was in 2014-15 .i.e., -33%. The average returns of 5 years of Punjab National Bank (PNB) is -6.4% which is again a negative average return for the shareholders.

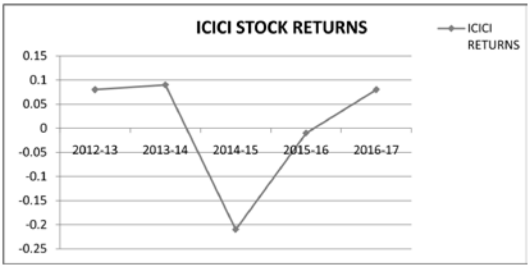
Table No 3: Returns of Industrial Credit and Investment Corporation of India (ICICI)

YEARS	AVERAGE RETURNS
2012-13	0.08
2013-14	0.09
2014-15	-0.21
2015-16	-0.01
2016-17	0.08
TOTAL	0.07

Source: Author

Total average returns of 5 years
= 0.07/5 x 100 = 1.4%

Graph No: 3



Analysis

The average returns of 5 years of Industrial Credit and Investment Corporation of India (ICICI)are 1.4%. This banking share has given a slight positive return to its holders. Where in the maximum return on this stock was in the year 2013-14 .i.e. 9% and minimum return was -21% in 2014-15.

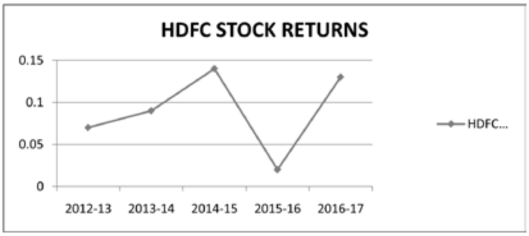
Table No: 4 Returns of Housing development finance corporation (HDFC) stock

YEARS	AVERAGE RETURNS
2012-13	0.07
2013-14	0.09
2014-15	0.14
2015-16	0.02
2016-17	0.13
TOTAL	0.45

Source: Author

Total average returns of 5 years = 0.45/5 x 100 = 9%

Graph No:4



Analysis

The average returns for 5 years of HDFC stock is 9%. The HDFC shares have given average return to its shareholders which is slightly above Bank interest rates. The maximum returnof HDFC was in the year 2014-15 .i.e., 14% and minimum return was in 2015-16 .i.e., 2%.

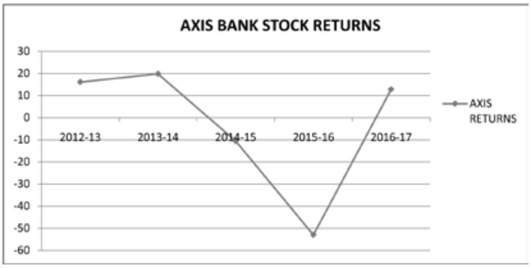
Table No: 5 Average Returns of Axis Bank Stock

YEARS	AVERAGE RETURNS
2012-13	0.06
2013-14	0.08
2014-15	-0.04
2015-16	-0.08
2016-17	0.05
TOTAL	0.07

Source: Author

Total average returns of 5 years = 0.07/5 x 100 = 1.4%

Graph No: 5



Analysis

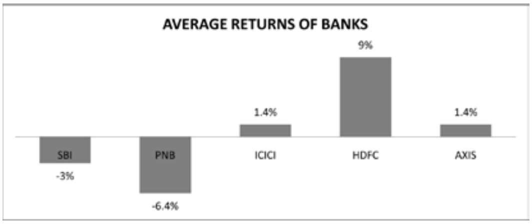
The average returns of 5 years of Axis stocksis just 1.4%.Where in the maximum return was in the year 2013-14 .i.e 8% and minimum return was negative in 2015-16 .i.e.,-8%.

Table No 6: Comparison of Average Returns of Banking stocks.

BANKS	AVERAGE RETURN
SBI	-3%
PNB	-6.4%
ICICI	4%
HDFC	9%
AXIS	1.4%

Source: Author

Graph No: 6



Analysis

If we compare the average returns of banks ICICI and AXIS bank have given same returns .i.e., 1.4%. Whereas the HDFC bank has given highest return of 9% compared to other banks. Both SBI and PNB banks average returns are negative which shows that these shares have not created any value for shareholders.

II. Market Risk:
Beta of Banking Stocks.

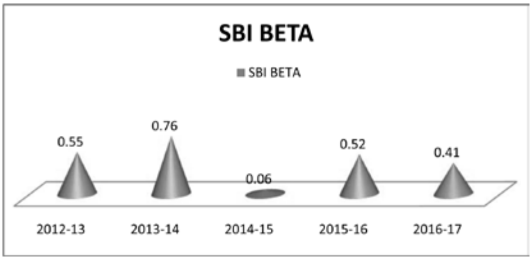
Table No: 7 Beta of State Bank of India Stock

YEARS	BETA
2012-13	0.55
2013-14	0.76
2014-15	0.06
2015-16	0.52
2016-17	0.41
TOTAL	2.30

Source: Author

Average Beta of 5 years = 2.30/5 = 0.46

Graph No:7



Analysis:

The average beta of SBI shares are 0.46 which means if the Nifty index changes by 10% the SBI share changes by 4.6%. the highest beta SBI shares are less sensitive towards Market index movement and it is having less market risk.

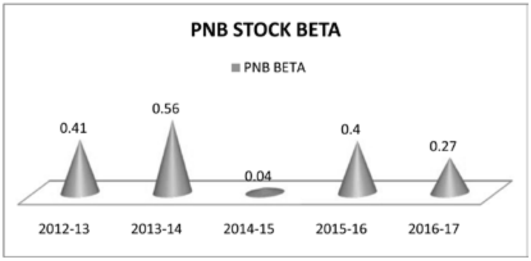
Table No 8: Beta of Punjab National Bank (PNB) stock.

YEARS	BETA
2012-13	0.41
2013-14	0.56
2014-15	0.04
2015-16	0.40
2016-17	0.27
TOTAL	1.28

Source: Author

Total Average Beta of 5 years = 1.28/5 = 0.256

Graph No: 8



Analysis:

The average beta of PNB bank is 0.256**.** This share is having less market risk. The highest beta of this stock was 0.56 in the year 2013-14 which means for 1% change in NIFTY the PNB stock changed 0.56%. The lowest beta was 0.04 in the year 2014-15 which is close to zero.

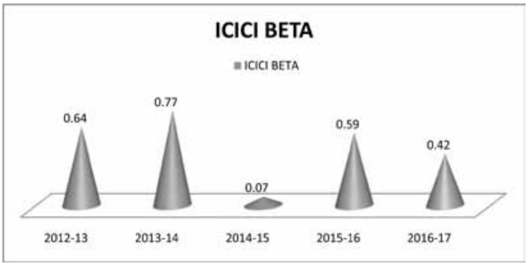
Table No 9: Beta of Industrial Credit and Investment Corporation of India (ICICI) stocks

YEARS	BETA
2012-13	0.64
2013-14	0.77
2014-15	0.07
2015-16	0.59
2016-17	0.42
TOTAL	2.49

Source: Author

Total Average Beta of 5 years = 2.49/5 = 0.498

Graph No 9:



Analysis:

The average beta of ICICI stocks is 0.498. . Beta value 0.498 means for 10% increase in market index the ICICI stock increased by 4.98% and vice versa. Even this banking stock is having less market risk. The highest beta value was 0.77 and lowest beta was 0.07.

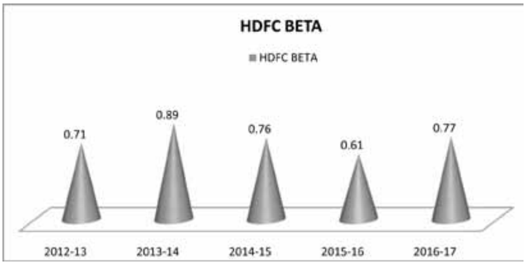
Table No 10: Beta of Housing Development Finance Corporation (HDFC) stocks

YEARS	BETA
2012-13	0.71
2013-14	0.89
2014-15	0.76
2015-16	0.61
2016-17	0.77
TOTAL	**3.74**

Source:Author

Total Average Beta of 5 years = 3.74/5 = 0.748

Graph No 10:



Analysis:

The average beta of HDFC is 0.748 which means for 10% increase in NIFTY the ICICI stocks increased by 7.48% and vice versa. The stock showed highest sensitivity towards index in the year 2013-14 where beta was 0.89 and lowest sensitivity was shown in the year 2015-16 where the beta was 0.61.

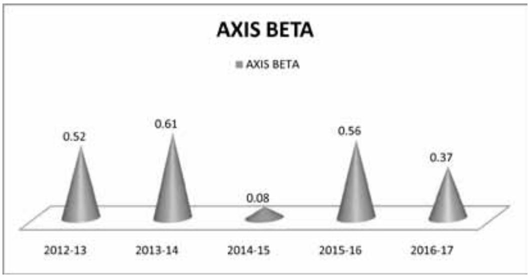
Table No 11: Beta of Axis Bank Stock

YEARS	BETA
2012-13	0.52
2013-14	0.61
2014-15	0.08
2015-16	0.56
2016-17	0.37
TOTAL	2.14

Source: Author

Total Average Beta of 5 years = 2.14/5 = 0.428

Graph No: 11



Analysis:

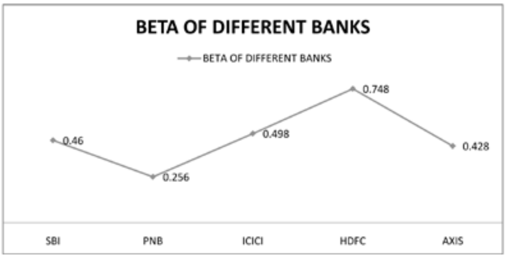
The average beta of Axis bank stock was 0.428, the highest beta was 0.61 and the lowest beta is 0.08 which indicates the Axis banks systematic risk is less and it is less sensitive towards market index movement.

Table No 12: Average Beta's of different Banking stocks

COMPANIES	AVERAGE BETA
SBI	0.46
PNB	0.256
ICICI	0.498
HDFC	0.748
AXIS	0.428

Source: Author

Graph No: 12



Analysis:

If we compare the betas among different Banking stocks, the Beta of HDFC bank ishigh compared to other banks and beta of PNB stocks is very less compared to other banks. But on an average all the banking stocks selected for in this study are having a beta value of less than 1 which indicates all these banking stocks are Risk defensive stocks and subjected to less Market risk .

Scope and conclusion

Banking sector is the backbone of country's economy. Banking stocks are very commonly seen investor's portfolio. This sector has given very good return to the investors in the past. But the recent financial crisis, has proved, that the Banking stocks tend to be more volatile than other sector stocks. With this background we have undertaken sustainability of banking stocks in investor's portfolio through risk and return analysis. Among these stocks highest average return of 25% was given by PNB stock in the year 2016-17. The highest average return for five years was given by HDFC stock which is 9%. Other banking stocks like ICICI and Axis have given very less but positive average return. But the Public sector Banks like SBI and PNB stocks average return for five years is negative. These Banking stocks have not given good returns to investors to commensurate with the risk they have undertaken. The Return of ICICI and Axis stocks are almost close to Risk free rate and banks like SBI and PNB have not created any value for their shareholders.

If we consider the Market risk, the beta's of all these banking stocks are less than one which indicates these stocks have less Market risk and they are less sensitive towards NIFTY movements. Thus we can conclude by saying these banking stocks belong to low risk category but they failed to give adequate return to their shareholders. If this trend is continued it creates doubt on the sustainability of banking stocks in Investors portfolio. The banking stocks may become uncommon in investor's portfolio.

This study covers only the average return and Market risk of selected five banking stocks. Still there is a scope for further research in this area as we have not calculated the total risk involved in these shares through variance and standard deviation. An in depth study can be undertaken by taking a large sample of banking stocks and through their risk and return analysis for a longer period of time.

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Innovative Practices in Housing Finance Sector

Dr. K. Rajendra Prasad *
Dr. B. Nagarjuna **

Abstract

Indian financial sector has witnessed widening and deepening of its services since liberalization in 1992. The expansion and diversification became the hallmark of financial sectors especially in banking sector. The housing finance is a integral part of services industry exclusively one of the categories of financial fund based services. The housing industry has been placed under priority sector as housing is a human necessity along with food and cloths. In India, there is an ever-widening supply - demand gap in housing industry. The housing sector in India has witnessed dramatic changes over the last few years. Impact of the housing sector on any economy is significant as it caters to multi-faced basic human needs. Integration of housing finance industry is a major impediment with capital market for its further growth. Despite this, the industry is on growing path mainly due to a consistent decline in interest rates, tax incentives given by the government and changing income profile of middle class population.

Housing finance system in India in the formal sector is primarily dominated by two major types of institutions, viz., Commercial Banks and housing finance companies and a very small market share as accounted for by third group of institutions, cooperative banks. Even though HFCs are specialized institutions in housing finance, their market share and profitability are under threat year after year. While the institutional finance to housing sector in general and bank finance in particular has shown an impressive growth during more than one decade. It is true that the growth in housing sector has been fuelled by the growth in housing finance by banks. This case study would shed light on innovative strategies on housing loan practices of the public sector banks.

Keywords: *Housing Finance, Lending Practices, Customer Satisfaction & Innovative Strategies*

Introduction

Today's financial services market requires new strategies for survival and continued operation. This will enable them to capture the opportunities with the low risks to meet the tough competition from global and domestic players. The

* **Dr. K. Rajendra Prasad,** Associate Professor, Dept of Management Studies, BIT Institute of Technology, Hindupur, Email: rajendraprasad.kdr@gmail.com

** **Dr. B. Nagarjuna,** Principal, Gate Institute of Technology and Management Science, Tirupati, Email: nagarjuna.1975@gmail.com

financial services marketing demands more human skill set, attitudes and motivation. The personal touch and quality services are more important in this sector. The financial service is customer specific and customer friendly. Hence customer satisfaction is paramount in this sector.

The housing finance is a integral part of services industry. The housing industry has been placed under priority sector as housing is a human necessity. In India, there is an ever-widening supply - demand gap in housing industry. The housing sector in India has witnessed dramatic changes over the last few years. The Government has been supporting the housing sector through a series of fiscal incentives. The increasing demand for housing has increased the demand for housing finance too. The exponential growth of housing finance market has promoted many aggressive new players to enter and compete for market share. The ultimate beneficiary in this stiff competition is the home finance seeker. The players in the housing finance market, due to tough competition, started offering concessions to the home finance seekers. They compete with one another to provide most value added and efficient service to the customers. Today the housing finance market is virtually dominated by the customer with various home loan options. Housing finance providers should express integrity, reputation for quality, and timeliness of delivery in this competitive environment.

Conceptual Approaches of Housing Finance

Housing Finance: The term housing finance commonly referred to the loans availed by a household for the purchase or construction of a housing unit, involves mortgaging of the property as collateral against which the loan has been taken. As housing loans are given under the condition of mortgaging the housing property for which the loan has been availed, the term mortgage finance has become synonymous to housing finance.

Housing Finance Sector: Housing finance covers a wide range of issues, and the concept often varies in its coverage across countries; however, it has been defined mainly in terms of residential mortgage credit. Boleat (1985) for instance describes housing finance in terms of the flow of funds to home buyers. According to Lea (2000), housing finance includes a broad array of institutional arrangements which include both general and specialized institutions acting as primary or secondary lenders, with the common purpose of channelling funds from savers to households demanding housing loans. Warnock and Warnock (2007) describe housing finance as the provision of long-term financing for house purchase. King (2009) refers to housing finance as the funds used for building and maintaining the housing stock of a country. Chiquier and Lea (2009) look at housing finance as a link between multi-sector issues which are in a continuous process of change on account of the economic, cultural, and regulatory environment of a country.

Table 1: Evolutionary Phases of Indian Housing Finance System

During Period	Phases	Evolution
(1)	**(2)**	**(3)**
Before 1970	Phase – I	Government of India Domination
1970-1980	Phase – II	HUDCO and HDFC Establishements
1981-1990	Phase – III	Establishment of National Housing Bank
1991-2000	Phase – IV	Liberalization of Interest Rates
Post 2000	Phase – V	High growth

Source: Chandrasekar, V. (2010). Housing Finance and Housing – A view from India and Beyond, Indu Centre for Real Estate and Infrastructure.

Characteristic Trends of Indian Housing Finance Market: In India, Monies spent on housing were mostly from own savings, sale of assets, borrowings from relatives, friends or the money lender. In the recent years the mind-set has changed, with more individuals open to a credit culture. This is reflected in the rapid growth of housing loans, credit cards, auto finance and personal loans.

⇒ Increasing Urbanisation

⇒ Demographics of Housing Loan Market

⇒ Enhanced Affordability for Housing Assets

⇒ Market Shift finally from Fixed to Flexible

⇒ Repayment Schedules of Housing Loans

⇒ Tax Benefits of Income from Housing Property

⇒ Varieties of Housing Loan Products

⇒ Housing Loan Marketing and Distribution

⇒ Refinement of Housing Loan Prepayments pattern

The housing finance market specifically, deals with cross-selling of products and services which is popular. Thus a person looking for a housing loan is also offered life insurance, home protection insurance, and other privileges on banking facilities. For a dedicated housing finance company, building up a large network is often time consuming and expensive.

Innovative Promotional strategies of housing finance institutions

- Advertisement in print media with summarized information
- Publicity through direct selling agents.
- Advertisement through pamphlets , Local Cable TV Network.

- Mail to existing customers.
- Telemarketing and/or messages to registered contact numbers.
- Conducting housing loan mela.
- Keeping Brochures at the offices and project sites of builders.
- Executive builders meet periodically organized by lending banks.
- Visit to various Schools/Colleges/ Government Departments /reputed private sector companies for making presentations on housing loan scheme.
- Establishing Liaison with reputed architects/vaastu specialists.
- Designing Liaison with builders by visiting their offices/ project sites.
- Banners as strategic locations.
- Hoardings at various sites/ projects under construction.
- Convince people to buy their own house instead of paying rent.

In addition to the above promotional strategies Housing Finance Companies follow certain special promotional strategies to increase their market share in the home loan sector. Following are the promotional strategies of housing finance banks.

- Tap newer segments such as packages for professionals like doctors.
- Single clearance of loans up Rs.15 lakhs.
- Provide personalized services to customers.
- Competitive pricing in terms of lower interest rates and front end charges.
- Increase reach by penetrating into rural and semi urban areas.
- Improving the credit delivery mechanism and thus reducing the time lag between loan sanction and its disbursement.
- Aggressive marketing and greater publicity through, newspaper, websites.
- Waiver of processing and administration fees, gift offers and other incentives.
- On the spot loan approval without sufficient documentary evidence and loan — to-value ratios that exceeded 100%. This was supplemented by cutthroat competition on the pricing front, with each new player trying to undercut the other.

Empirical Research on Housing Finance Sector

The housing finance being a financial service should possess a high level of marketing effectiveness, if it has to win over the customers support. This ultimately results in company's increased financial performance. The Indian housing finance sector is marked by diverse player of all sizes along the spectrum. Due to this interest rates and convergence is declining. In this backdrop moment, it is no more possible to use interest rate differentials as a competitive tool. Hence customer satisfaction has emerged as a competitive tool to differentiate one housing finance company from the others. This demands design and implementation of innovative marketing strategies. Accordingly housing finance institutions are coming out with many new marketing strategies to attract the customers.

Need for the Study: Any service oriented organization needs to constantly innovate to succeed. Innovation is about making things better, faster, or cheaper than competitor. It drives ongoing improvements and may help unleash a new idea that changes the rules. “Innovation leading to increased productivity is the fundamental source of increasing wealth in an economy,” says Tim Mendham in his article, “The Meaning of Innovation,” at fastthinking.com. Banking companies also need to implement innovative practices continuously, effectively and proactively in all their financial services.

Scope for the study: Impact of the housing sector on any economy is significant as it caters to multi-faced basic human needs. Integration of housing finance industry is a major impediment with capital market for its further growth. Despite this, the industry is on growing path mainly due to a consistent decline in interest rates, tax incentives given by the government and changing income profile of the Indian middle class population. Housing finance system in India in the formal sector is primarily dominated by two major types of institutions, viz., Commercial Banks (CBs) and housing finance companies (HFCs) and a very small market share as accounted for by third group of institutions, cooperative banks. Of the two major groups, the HFCs had dominated the market till year of 2001-02, later it was overtaken by commercial banks from the year of 2002-03 and since then commercial banks have been enjoying the dominant share of the market. Even though HFCs are specialized institutions in housing finance, their market share and profitability are under threat year after year.

Objectives of the Study

- To understand theimportance of innovative strategies in financial services sector exclusively in Housing Finance Industry.
- To study of public sector banks’ practices on housing finance
- To assess the housing loan customers satisfaction level with regard to the marketing strategies.

Methodology and Instrumental aids of the Empirical Research

The main reason for continued interest in this area of research is the ever changing banking business environment across the world. The objectives of the present study are to investigate the determinants of customer satisfaction of Indian financing institutions with focus on commercial banks engaged in housing finance.

Sample of the Study: In the first stage of sampling Ananthapuram district of Andhra Pradesh was chosen as geographical limit. Of all the commercial banks located in the district and engaged in housing finance, SBI, Andhra Bank and Syndicate Bank were selected as sampling units.

Sampling Method: Convenient sampling method was adopted in choosing ultimate sample units both lending institutions and housing loan borrowers of the respective banks also those were located in in Ananthapuram district.

Sample Frame: Sample frame of the study consists 50 branches and 250 customers of the selected banks.

Data Sources and Survey Instrument: Used both primary and secondary data. The primary data was collected from banks and loan customers through questionnaire.

Statistical Tools Used: The statistical tools used in the study are mean, standard deviation and other basic statistical tools applied to trace the output of the research work.

Limitations of the Study

- As the sample of the study was drawn from Anathapuram district, the applicability of findings to larger geographical are should be with caution.
- Also the sample institutions for the study is limited to only selected public sector banks viz., State Bank of India, Andhra Bank Syndicate Bank.
- The bank housing loanee customers opinion and their satisfaction levels based on psychological factors, perceptions, experience, situational factors etc.

Housing Finance Lending Practice by Banks

The customers' satisfaction has been conceptualized in several ways. It consists of customers' expectations, performance interactions, pleasure or displeasure, and the evaluation of the benefits of consumption. The financial services companies therefore need to consider market characteristics, which consist of consumer contact. The financial services market requires new strategies to survive in the competitive market.

The marketing is regarded as the pivotal force behind strategic planning and business operations. The financial service organization, should study the market, recognize the numerous opportunities, select the most appropriate market segments, and offer superior value to meet the selected customers' needs and wants. In financial services, good customer relations and their satisfaction is the single major factor contributing to the success of an organization. The successful financial services companies share a strong focus and a heavy commitment towards marketing. The modern marketing seeks to attract new customers by promising superior value and to keep current customers by delivering satisfaction.

Table 2 : Housing Finance Lending Practices and Customers Criticalness

Sl. No.	Key Parameters of Housing Loan Process	No. of Customers	No. of Banks
(1)	(2)	(3)	(4)
1	Pre-approval documentation	250	50
2	Assistance in obtaining required clearance from local body authorities	250	50
3	Providing guidelines for submission of all required documents	250	50
4	Appointment at convenient times to fill in and submit the requisite forms and documents	250	50
5	Post-loan approval documentation	250	50
6	Disbursal of loans	250	50
7	Rate of Interest, Loan repayment & settlements	250	50
8	Otehrs (EMI, LTV, Service and documentation charges)	250	50

The above table shows the vital factors which attracts more customers in selecting the lending bank for taking house loans. Herewith considered some important valid variables which generally expect customers like low interest rates, flexible loan repayment schedule, less service charges & easy documentation process and miscellaneous. The dominant reason identified in the choice of loaning institution include lower interest rates and flexible loan repayment schedule.

The important enquiries which loanees generally make on housing finance banks before arriving at borrowing decisions are shown in the above table. The loanees enquiries are on LTV, EMI calculations, documentation process etc. The second major enquiries were on loan procedural process and rest followed by feedbacks from current house loannes from lending bank.

Proactive Strategies of Banks in Housing Finance

The following are some proactive initiatives shall be undertaken by lending institutions in order to achieve lion share of the target market. The perception on critical stages in institutional housing loan process varies from loanee to loanee. Major problems faced by loanees while borrowing housing loan from commercial banks are are documentation process and time delays, procedural delays and non-cooperation, and understanding LTV and EMI respectively. By calculation paper work non-cooperation of loaner bank staff and loanee understanding of LTV/ EMI are significant problems.

Table 4 : Innovative Approach of Hosing Finance Lending Institutions and Customers Satisfaction Levels

Sl.No	Dimensions	Weighted Average Scores	Anchor Statements
(1)	(2)	(3)	(4)
1	Bank willingness to help customers in providing prompt services	2.64	Low Fair
2	Bank responds quickly to customer problems	2.50	Low Fair
3	Customers are treated with care and importance	2.65	Low Fair
4	Bank provides trustworthy and valuable services to customers	2.80	Low Fair
5	Bank gives accurate and consistent reliable information	2.66	Low Fair
6	Bank staff avoid technical Jargons in conversation	3.18	High Fair
7	Bank staff give schedule to appointments and adhere it	3.16	High Fair
8	Staff who answer over the telephone are good and polite	3.10	High Fair
9	Bank maintains organized data bases for prompt service	3.34	High Fair
10	Bank provides right information to customers	3.17	High Fair
11	Bank sort out customer problems and issues	2.68	Low Fair
12	Bank services are highly Customized	2.78	Low Fair
13	Bank maintains regular contacts to retain its Customers	3.34	High Fair
14	Cross selling of products is done effectively by bank	2.56	Low Fair
15	Comprehensive core banking facilities	3.22	High Fair
16	Flexi counter facilities	3.18	High Fair

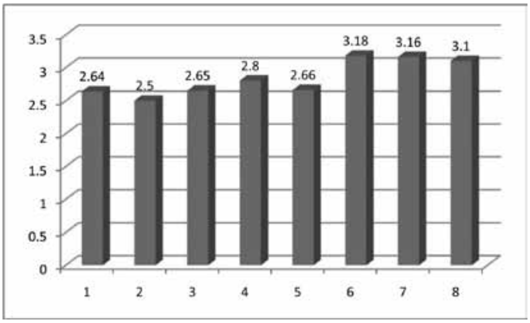
17	Sufficient number of counters	3.42	High Fair
18	Comfortable seating for customers in wait	3.06	High Fair
19	Effective ATM service in the branch	3.30	High Fair
20	TV/Daily news paper	2.37	Poor
21	Pamphlets and brochures distribute of bank	2.32	Poor
22	Bank direct correspondence about the loan offers	2.41	Poor
23	Bank advertisement through sponsors and Cut outs	1.91	Poor
24	Bank's flexi board regarding loan melas	2.0	Poor

Source: Field data.

Note: Scores between > 2.60 - ≤ 3.0 are low fair.
Scores between > 3.00 - ≤ 3.4 are high fair.

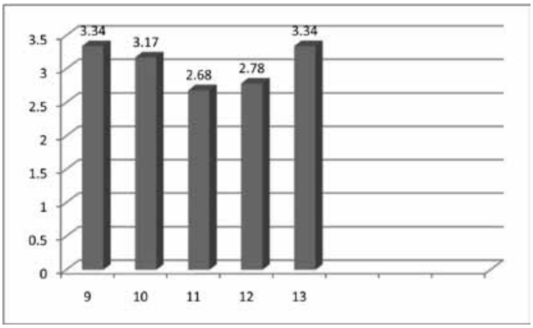
The above table consists of total 24 dimensions of innovative home loan lending practices of banks. All the variables are divided into four sub-parts in order to make easy to understand and as well to exhibit in graphical presentations.

Figure 1: Impact of CRM Activities of Bank Lending Practices



Customer orientation and Customer Relations Management (CRM) are captured using 8 dimensions related to them. Loanee responses are measured on 1-5 scale. Summary statistics in the form of weighted scores and corresponding anchor statements are shown in columns 3 & 4 respectively in table 4 . 3-11quick perusal of the table reveals aspects 6, 7, 8, were rated high fair by the respondents and other aspect 1, 2, 3, 4, 5, were rated low fair. Thus loanees expressed mixed opinions on customer orientation and CRM.

Figure 2: Impact of Interactive Attitude of Bank Lending Practices



Summary statistics in the form of weighted scores and corresponding anchor statements are shown in columns 3 & 4 respectively in table 4 . quick perusal of the table reveals aspects 9, 10 & 13 were rated high fair by the respondents and other aspects 11 & 12 were rated low fair. Thus

Figure 3: Impact of Proactive of Bank Lending Practices

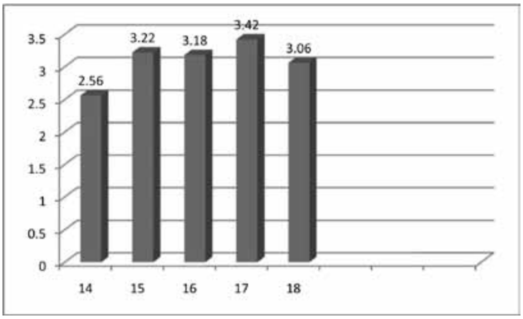


Figure 3 presents opinions of the respondents on loanee banks' proactive of the five dimensions considered, fourteenth dimension is rated low fair and other remaining four of the dimensions represents high fair. This analysis will lead to a conclusion that housing loan barrowers have positive views on the infrastructural felicities of lending bank.

Figure 4: Loanee Perceptions on Promotional Activities of Banks

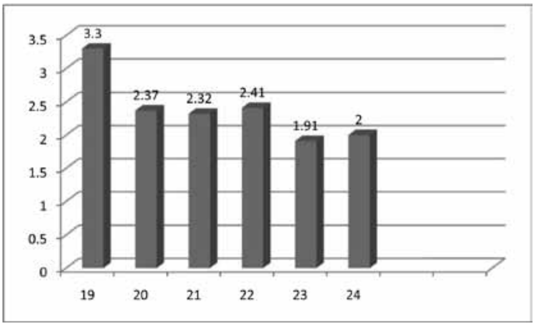


Figure 4 presents impact of dimensions of promotional activities on housing loan borrowers. It is disheartening to note that loanee respondents have poor perceptions on promotional activities of lending banks. None of the promotional activities followed by the loanee banks have yield positive impression and feedbacks on the loanee perceptions

Findings of the empirical research

- Pre and post-loan approval documentation is perceived as a critical stage in housing loan process by the borrowers.
- Provision of guidelines for submission of all required documents is the most help received from loanee bank by loanees followed by appointment at convenient time to fill-in and submit require forms
- Loanees made prior enquiries in selecting lending bank, which are related to LTVs and EMIs, loan procedural process and its overall costs sand feedback from current house loan borrowers.
- Total sample respondents, high customer satisfaction is associated with to own a big home as reason for approaching loanee bank, low service charges and easy documentation for selecting lender bank; medium satisfaction is associated with bank assistance in getting required clearance from local body authorities; low satisfaction level is associated

with loan flexible interest rates and flexible repayment schedules, lack of funds as a reason for approaching a lending bank, enquiries like feedback from current home loanees and loan procedural process and its overall costs; lending bank's help in providing guidelines.

- There are significant differences between rate of interest on loan sub-groups and customer problems associated with bank loan application support to customers.
- There are significant difference between bank loan interest slabs and customers problems associated with information reporting by housing loan banks.
- From bank wise analysis customer satisfaction levels with loan quantum are significant, with bank attitude significant, with interpersonal communication significant with information reporting significant, bank infrastructural facilities significant, with all housing finance practices significant.

Suggestions

- Pre-and post-housing loan sanction documentation should be simplified to make the process customer-friendly.
- Since service charges on loan processing by lending banks appear to be onerous, there is a need to slash down these charges.
- Pre-closer of home loans and reduction of loan amortization periods should be permitted to suit the improvements in economic status of loanees.
- Customers need to be more and better informed on LTVs and EMIs in pre-loan sanction enquiry phase.
- In spite of availing of loans from public sector banks, customers still resort to borrowing from informal home markets, average loan amounts sanctioned should be increased after securing the loan through mortgage.
- All sample banks should specifically focus on loanee younger age groups with regard to bank-customer relations and loan promotional activities.
- Three sample banks should improve the loan application support to the farmers when they approach for housing loan.
- In general all banks should extend due diligence in dealing with businessmen customers as to loan quantum.

Conclusion

Healthy trends in home loan market in recent years are: low and flexible interest-rates, long loan amortization period, tax incentives, affordability of house loans etc. Bank housing loan process is a lengthy and cumbersome process. In the present study this process is conceived as happening eight clearly demarcated sub-processes which are alternatively called modules. Pre-home loan borrower enquiries are centered around LTVs and EMI. Pre-and Post-loan approval documentation is critical stage in loan process. Across banks customers satisfaction is associated with innovative strategies mixed results are reported on customer satisfaction and customer / loan related aspects – in some cases association is found and in others no such association is observed. There is utmost need to concentrate on loan service quality.

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A STUDY ON THE ASSESSMENT OF STUDENT'S PREFERENCE FOR DIGITAL BANKING AFTER DEMONETIZATION

Smenita Muriel Pinto*
Aisiri K. N. **
Dr. S. R. Ganesh **

ABSTRACT

"I dream of a Digital India where mobile and e-banking ensures financial inclusion" – Narendra Modi

Digital Banking has seen rapid upswing after Demonetization was introduced in November 2016. Ever since, the responses obtained from the public have been mixed. With the perforation of the use of smart phones and the internet, the concept of Demonetization constructed a pathway for lightning fast transactions. Recent researches say, that Digital banking has propelled a cashless economy only to ensure a positive trend of 59% [1] by value in digital payments. Digital banking can be stated as a change in traditional banking to transact conveniently and hand over various banking products through flexible technology. Several banking institutions argue that digital banking is a cost-effective method while the traditional method of banking revolved around trust. But after Demonetization new challenges have pierced within the banking framework. The customers question the security of their data being subject to the hands of many cybercriminals. Banking institutions encourage and support the customers to use internet or mobile banking for sturdy banking network, although there is a persistent need in educating the rural areas along with the opening of more banking branches. This study mainly revolves around the preference of consumers to go cashless. It also would address the need, understanding, awareness, behavior towards the acceptance of digital banking. The paper will indicate and compare the present and past knowledge and usage of banking methods after the instigation of Demonetization.

Key words: *Digital Banking, Demonetization, Student's Preferences.*

INTRODUCTION:

Demonetization is the act of stripping a currency unit of its status as legal tender. The current form or forms of money is pulled from circulation and retired, often to be replaced with new

* **Smenita Muriel Pinto,** Student, M.Com., St Joseph College of Commerce, Bangalore, Email: smenita_721@ymail.com

** **Aisiri K. N.,** Student, M.Com., St Joseph College of Commerce, Bangalore.

*** **Dr. S. R. Ganesh**, Assistant Professor, St Joseph College of Commerce, Bangalore

notes or coins. Sometimes, a country completely replaces the old currency with currency. [2]

Demonetization also refers to as the process of moving people from a cash based system to a cashless system [digital system]. To demonetize in its simplest definition is thus to do away with cash. In a market environment that is mainly defined by technology and efficiency. It is every government's desire to have a huge section of the population using electronic and mobile payment methods.[3] Digital payments are payments that are conducted over the internet and mobile channels and hence, any payment that is sent online or through mobile computing an internet enabled devices can be called such. For digital payments, the sender of the payment must have a bank account, an online banking method, a device from which can be made, and a medium of transmission meaning that either he or she should have signed up to a provider or intermediary such as bank or service provider.

The impact on demonetization on the economy was high primarily because, the demonetized currency represented 85.6% of the total currency in circulation.

In a historic move, the Modi government decided to cancel legal tender of rupees 500 and 1000 notes in a view to remove and eliminate black money and counterfeiting which is also likely to impact the macroeconomic variables in the country.[4]

Cashless economy is an economy where maximum transaction are done without using the physical cash are the means of hard cash. The introduction of cashless economy with the help of information technology these days is fully supported by the national government in India.[5]

As a result of demonetization in India, government have come up with many methods of cashless transactions by introducing various different applications which we can download in our smartphones and make transactions and payments easier. Cashless transaction methods:

a. **Banking card:** debit and credit cards – these offers consumer more security, convenience, and control than any other payment method.

b. **UUSD:** [Unstructured supplementary service data] – This service allows mobile banking transaction using basic feature mobile phone, there is no need to have mobile internet data facility for using USSD base mobile banking. It helps in inter bank account to account fund transfer and to check balance and mini statement.

c. AEPS: Aadhar enabled payment system- it's a bank led model

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1 *www.frbsf.org*

2 www.investopedia.com

3 www.importantindia.com

4 international journal of research on economics and social science

5 www.gjimt.ac.in

which allows online interoperable financial transaction PoS [point of sale/ micro ATM] through the Business Correspondent [BC] / Bank Mitra of any bank using Aadhar authentication.

d. UPI: Unified payments interface- It is a system that powers multiple bank accounts in to a single mobile application [of any participating bank], merging several banking features, seamless fund routing and merchant payment into one hood.

e. **Mobile wallets:** It is a way to carry cash in digital format. You can link your debit or credit card information in mobile device to mobile wallet application or you can transfer money online to mobile wallet. For ex: paytym, freecharge, airtel money, jio money, mobikwik, speed pay, citrus pay, SBI buddy.

f. **Point of sale:** It is the place where sales are made. On a macro level a PoS may be a mall, a market a city. On a micro level, retailers consider a PoS to be the area where a customer completes transaction, such as a check-out counter.

g. **Internet banking:** It is also known as online banking, e-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transaction through the financial institutions website.

h. **Mobile banking:** Micro ATM meant to be a device that is used by a million Business Correspondents (BC) to deliver basic banking services. The platform will enable Business Correspondents (who could be a local kirana shop owner and will act as 'micro ATM') to conduct instant transactions.[6]

LITERATURE REVIEW:

(Shendge, Shelar, & Kapase, 2017) in their study affirm that cashless policy will increase employment, reduce cash related robbery thereby reducing risk of carrying cash and it also reduces cash related corruption and attract more foreign investors to the company. Th financial safety over digital payment channel is important for pushing the cashless economy idea. **(Sharad, 2016)** in his article address that cashless transaction is the clear message towards the good economic growth in the country with the facilities like credit card, debit card and online transactions by means of fund transfer using e wallets and it reduces the treat of theft and loss of money and gives way for employment opportunities, high living standards and equal growth in economy.

(Metri & Jindappa, 2017) say that lack of infrastructure like internet access and power make things extremely difficult for people to adopt e transaction route

6 www.cashlessindia.gov.in

and the present paper meets an attempt to know the awareness about smart phone and the use of smart phone in India.

(Garg & Panchal, 2017) in their study conclude that cashless economy will help in curbing black money, counterfeit's fake currency, fighting against terrorism, reduce cash related robbery, helps in improving economic growth of country. **(Kokila & Ushadevi, 2017)** in the study expresses that through the demonetization cash transaction impacted by a decrease in liquidity, alternative payment methods such as e -wallets, online transaction using e-banking debit card and credit cards age have increased significantly.

(Balaji & Balaji, 2017) article conveys that demonetization aims at eradicating black money, removing counterfeit notes, stopping money laundry and focuses on encouraging cashless transaction as well. Cashless transaction uses credit and debit cards, online payment gateways and digital wallets for financial transactions. **(Mukhopadhyay, 2016)** says that the survey they conducted in 2011 and 2014 as well as household and enterprise surveys conducted in 2009-2010 to estimate the amount of cashless transaction prevalent in India and identify the avenues that are successful.

(Kumari & Khanna, 2017) infer that cashless economies are those that use mostly plastic money or digital money and thus minimal cash or money in paper form. They highlighted the various objectives of being cashless and different methods of cashless payment and study includes the hurdles coming in the way of making an economy cashless. **(Kaur, 2017)** puts across that demonetizing is a progressive shift to a cashless economy with a greater focus on electronic transactions is being envisaged. Rising use of credit/debit cards, net banking and other online payment mechanisms will be another positive effect of demonetization.

STATEMENT OF PROBLEM:

The usage of wallet payments, internet banking and other methods of digital banking have catapulted after the unscheduled appearance of demonetization. The effects of demonetization have benefitted the Banking industry significantly as the move of the government was to promote cashless transactions. Payment processing volumes has grown 3 times of around 20%[7] on a monthly basis in transactions and the growth rate of digital payments has escalated to 40%-70%[8] Above stated are the discrete responses people verbalize about the collaboration of digitalization with demonetization and our study mainly aims to understand if demonetization has increased a mind share for digital and cash journey among students. It also wants to evaluate the changes in the usage patterns of the seamless access to digital payments infrastructure after demonetization.

7 www.thehindubusinessline.com

8 www.thehindubusinessline.com

NEED FOR THE STUDY:

Banks are not known for being fast accelerators, but after the revolutionary transformation, the new banking features commonly known as the anytime and anywhere banking has made banking smart, convenient and demanding. Demonetization also instilled the design to go cashless. Therefore, it is highly recommended to stay ahead of the curve. With the widespread of Digital India and Demonetization, customers attitudes have fundamentally changed and therefore it's important to know if the students are well equipped to embrace banking in a digital world.

OBJECTIVES:

1) To assess the preference of students for digital banking after demonetization.
2) To identify the awareness of demonetization and acceptance of digital banking among students.
3) To estimate the usage of digital banking among students.
4) To offer constructive suggestions.

SCOPE OF THE STUDY:

The paper is designed to approach the student's inclination, familiarity and practice of digital banking succeeding demonetization from select Post Graduate Colleges situated in Bangalore. The underlying object of this study aims to bring out the brief knowledge on the student's view point, acceptance and impediments of digital banking in the prevailing cashless economy.

METHODOLOGY:

Tools for data collection: The paper prepared is non-descriptive in nature. The main tools for the collection of data is through primary data. The information collected is limited to the students who are mainly in their pursuing their studies within Bangalore city limits. Simple random sampling technique was used for the analysis of primary data. Secondary data has also been referred from books, articles, published papers and websites.

Sample size: In assessing the student's preference for digital banking after Demonetization the sample size was determined to be 200. The respondents for the study were 187 and are the students of different colleges in Bangalore. All the responses from the students are assumed to be valid.

Period of study: The study was conducted for a period of 3 weeks. The population was interviewed using a questionnaire through google forms. That data hence collected was recorded based on the views of the respondents.

LIMITATIONS OF THE STUDY:

1. The data obtained is merely based on the information and understanding of the students. Hence, it could be subject to biased opinions.
2. The study is limited to students within Bangalore city limits.

3. The respondents of the study are restricted to 187 due to the time and financial constraints.

CHAPTER SCHEME:

Chapter 1: Introduction – As the name suggests it's a brief overview of topic "A study on the assessment of student's preference for digital banking after demonetization"

Chapter 2: Literature review – It includes the information which describes, summarizes, evaluates, and clarifies the topic under study.

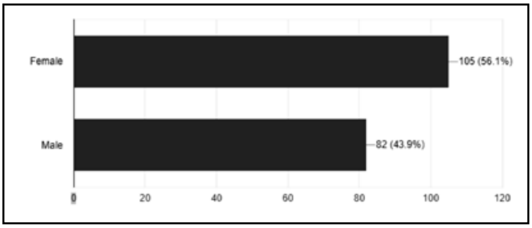
Chapter 3: Methodology – It involves methods of analysis applied to the topic under tstudy.

Chapter 4: Data analysis and Interpretation – It refers to assessing the data and samples and deriving desirable results under study.

Chapter 5: Findings, Conclusion and Recommendations. – It contains a brief summary on findings and suggestions of the study.

DATA ANALYSIS & INTERPRETATION:

Graph 1: Respondents of the study are shown below:

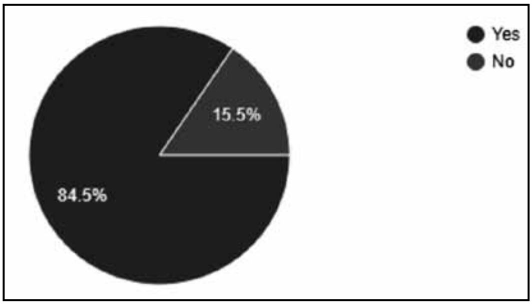


Inference: From the above graph it is observed that number of student respondents were 187, of which 105 respondents were female and 82 respondents were female.

Graph 1.2: Level of awareness of demonetization.

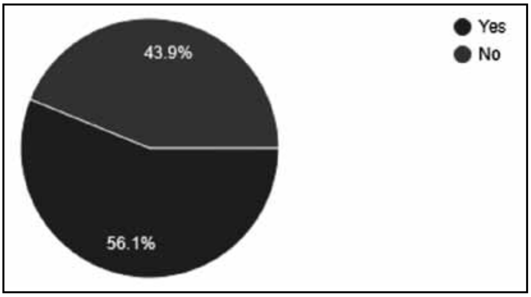
Inference: From the graph we can interpret that almost 98.9% of the students have enough knowledge of Demonetization and only 1.1% of the students still need to obtain an understanding of the term Demonetization. Hence, we can conclude that the students have attained a comfortable awareness on demonetization.

Graph 1.3: Graph showing the necessity of human assistance for banking.



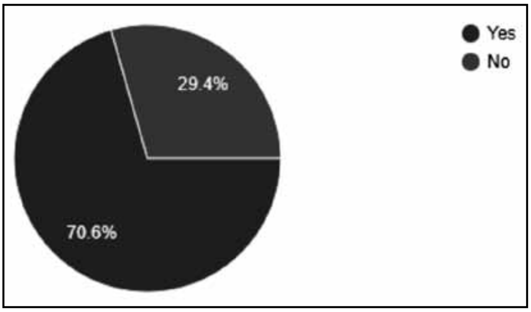
Inference: A majority of the students precisely about 84.5% need human assistance or interaction while performing any banking transaction while 15.5% of them can handle banking transactions by themselves. So, its inferred that most of the students are not yet ready to perform digital banking since it involves no human interaction while transacting any amount as deposit or payment.

Graph 1.4: Digital Economy v/s Non-Digital Economy



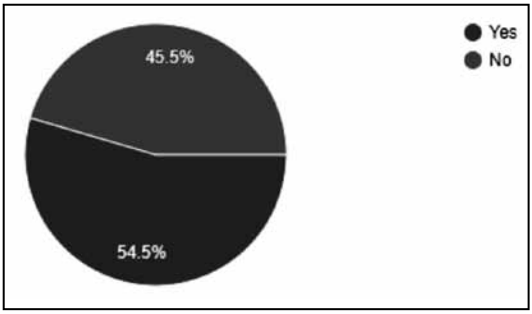
Inference: The above graph signifies the level of acceptance to switch to cashless economy. About 56.1% of students opined that they are well equipped to switch to a non-cash and digital led economy. But 43.9% of the students still support a non-digital economy. Hence a major portion of the students pick a Digital Economy over the latter.

Graph 1.5: Graph showing that Demonetization has made India switch to digital money.



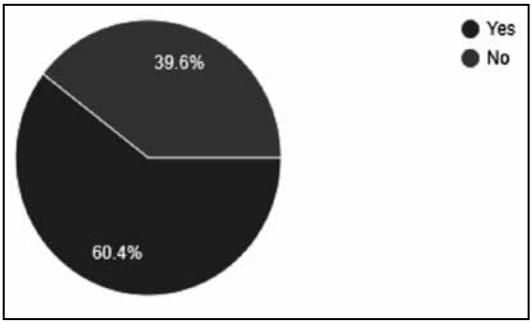
Inference: The above graph denotes 70.6% of the students strongly affirm that demonetization pushed India towards Digital money, while the 29.4% say that digital money was not affected by demonetization. Thus, it can be substantiated that most of the students are apprehensive of the effects of demonetization and digital banking.

Graph 1.6: Graph showing the rate of students who switched to digital banking post demonetization.



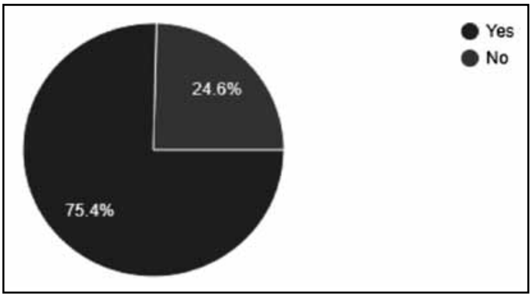
Inference: The above graph shows the ratio of students who have switched to digital banking post demonetization. And 54.5% of the students have moved to digital banking after demonetization and 45.5% have been using digital banking even before demonetization.

Graph1.7: E-banking V/s Other Mobile Wallet Payments (Paytm).



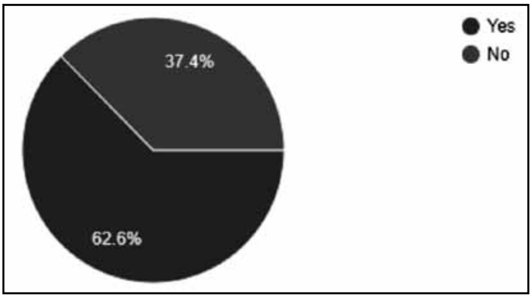
Inference: From the above graph its evident that 60.4% of the students prefer using other mobile wallets like Paytm over E- Banking for transactions and 39.6% have recourse to E- banking.

Graph 1.8: Graph showing that the recent demonetization move is an opportunity to become a digital economy.



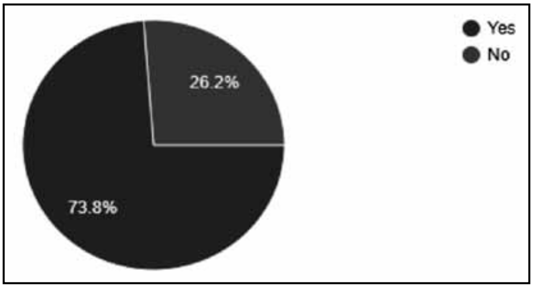
Inference: The graph on top represents that 75.4% of the students affirm that the recent move of demonetization is an opportunity for India to become a digital economy while 24.6% of the students disagree on the same.

Graph 1.9: Digital Banking – Safe mode of Banking



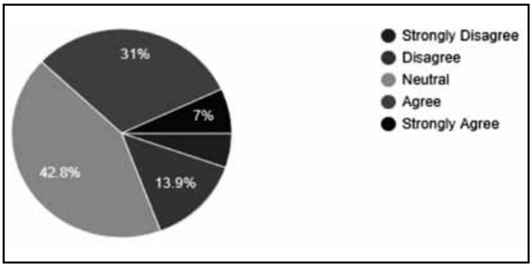
Inference: A greater number of students about 62.6% have a confidence of the safety provided by digital banking while 37.4% of students are not yet confident with the safety and security measures provided by digital banking.

Graph 2.0: Knowledge of Digital payment methods introduced by Government.



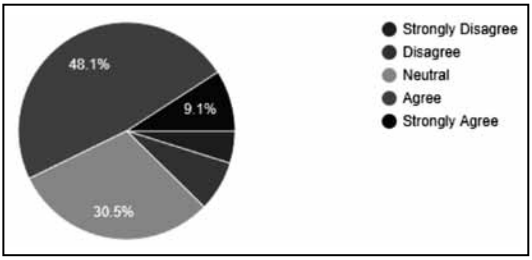
Inference: It can be observed that 73.8% of the students are aware of the different methods of digital payment introduced by the government while 26.2% of the students have no knowledge regarding the same.

Graph 2.1: Level of comfort in the usage of cashless payments on a daily basis.



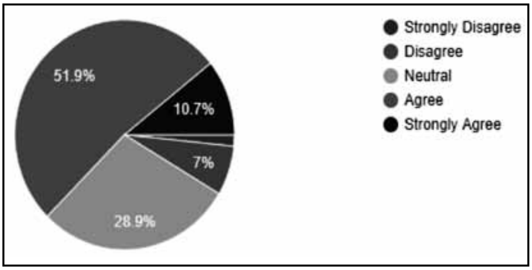
Inference: From the above graph it can be estimated that 42.8% of the students are highly comfortable to go cashless on a daily basis. It is seen that 31% of have a good comfort over going cashless while 13.9% are neutral on the regular usage of being cashless and small portion of 7% and 5.3% are highly uncomfortable to go cashless every day.

Graph 2.2: Digital banking – A time saving process after demonetization.



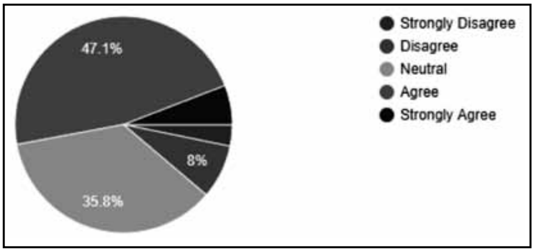
Inference: The graph signifies that a considerable size of students of 48.1% agree that digital banking is a time saving process post demonetization. A mediocre lot of students of 30.5% moderately agree and also disagree with the same. The students who strongly agree are around 9.1% while a minimal chunk of 7.5% and 4.8% disagree with digital banking being efficient.

Graph 2.3: Digital banking – Easy to use.



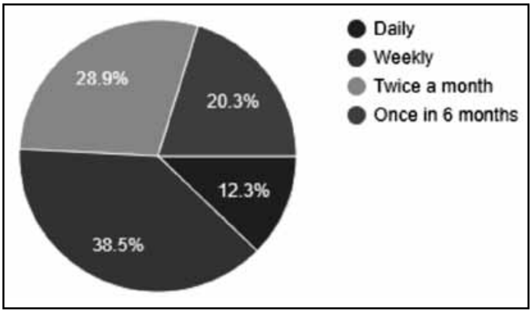
Inference: The chart shows that 51.9% of the students agree that digital banking is easy to use. It's also shows that 28.9% of the students are unbiased. The students who strongly agree on this point stand at 10.7%. A small portion of 7% and 1.6% do not agree on easy usage of digital banking.

Graph2.4: Digital Banking – A cost-effective service.



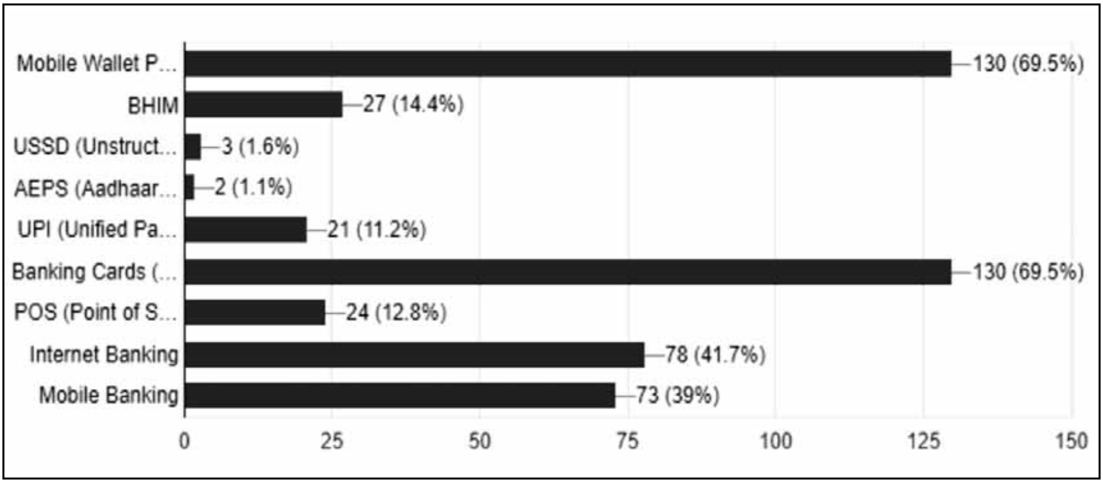
Inference: The chart here explains that 47.1% of the students agree that digital is a cost-effective service although 35.8% of them are equally for and against it. It can be observed that 8% of the students disagree and only 5.9% strongly agree on digital banking being cost effective.

Graph 2.5: Usage of Digital Banking among students.



Inference: It can be observed that most of the students which is 38.5% use digital banking weekly. The percentage of students using it twice a month is 28.9%. It is also seen that 20.3% of the students use digital banking half yearly and to a minimum level of 12.3% students use digital banking regularly.

Graph 2.6: Graph showing the different digital payment methods.



Inference: It can be understood from the above graph that students mainly use mobile wallet payments and Banking cards(debit/credit) precisely 130%. The next preferred mode of payment among students is internet and mobile banking which have 78% and 73% each. And comparatively less used methods of digital payment include BHIM (14.4%), POS (12.8%), UPI (11.2%), USSD (1.6%) and AEPS (1.1%). Its understood that respondents are comfortable using other application over the Government enabled applications.

FINDINGS:

1. For this particular study the average age of the respondents who significantly use Digital banking is of the age group of 20 and above.
2. From the analysis it's been understood that 99% of the respondents under this study are aware about demonetization and digital banking.
3. Digital banking has significantly increased among students after the introduction of demonetization.
4. The students prefer using mobile wallet payments and e-banking over the methods of digital payments introduced by the government.
5. The students have expressed that demonetization has created a huge scope for the expansion of digitalization within the country.
6. It's also observed that students do not entirely rest and rely on the safety and security measures provided under digital banking.

CONCLUSION:

Digital banking is predominant among students and their discernment of being well equipped to make a switch to the Cashless economy is taken into account under this study. This paper has displayed diverse and distinct opinions of the students towards their perception and cognizance of digital banking. Students conclude that digital banking is easy to use as well as it is a cost-effective service. Digital Banking has increased the level of comfort amid students in handling the banking transaction despite the students the lack of human assistance. Rapid changes within digital banking could be a hindrance in students as they lack the knowledge to apprehend the swift revolution. According to the students the areas of safety and security curb their urge to confide in confident banking systems under digitalization. From this it can be said that the research paper has fulfilled its objectives.

RECOMMENDATIONS:

The advancement in the field of banking has been phenomenal. However necessary measures need to be taken so that students get an opportunity to understand the same. Government needs to create digital awareness activities especially in colleges to promote the use of government enabled applications. As a result, the Government will gain a good market share, incur lower costs and also increase its revenue by advancing the practice of Government based applications.

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INNOVATIVE PRACTICES IN BANKING AND THEIR ROLE IN ECONOMIC REVIVAL OF INDIAN AGRICULTURAL SECTOR

Dr. T. V. Raju *
Mr. Praveen Kumar R. **
Ms. Prathiba David ***

Abstract:

Innovation means a new idea, method or device. Ex: Technology. Through Technology we find ways to get better results with less cost, efforts and time. The concept of Innovation can be put to use in every paradigm of life; it may be Individual, Institution or Society at large. In today's Competitive business world the concept of Innovation has become a life-line for survival and growth. As Banks and Financial Institutions constitute the back-bone of every economy, the prosperity of each sector of the economy depends on the support systems installed by the banking system. A sound financial system ensures the well-being of every sector and institution of the economy. Agriculture is one of the Important and Largest Sector of the Indian Economy with majority of the population associated with it. The Indian Banking system from post-independence period to the present period has showing vibrant and tremendous innovative practices in its systems and operations towards providing Loans and Advances and other ancillary services to the Agricultural sector. This study focuses on their impact and role in Economic revival.

1.0 Introduction:

Since 1969, tremendous changes have taken place in the banking industry. The banks have shed their traditional functions and have been innovating, improving and coming out with new types of the services to cater to the emerging needs of their customers. Banks also recognize the importance of various sectors of the economy and serving their crucial needs society have undergone so many changes. In the list of Operating Innovation technology- "Number of branches", Number of Employees", "Amount of Loans disbursed" ,"Anywhere Banking,

* **Dr. T.V. Raju,** Director, RVIM, Bangalore

** **Mr. Praveen Kumar R.,** Head, Department of Management Studies, Bishop Cotton Women's Christian College, Bangalore, Email: praveen.shantha@gmail.com

*** **Ms. Prathiba David,** Associate Professor, Department of Commerce, Bishop Cotton Women's Christian college, Bangalore

"Telebanking", "Internet Banking", "Web Banking", "E-Banking" etc., and Policy Innovating practices- like Mergers, Core Banking Solutions, Outsourcing, Customer Relationship Management, and Basel II accord etc., are some of the innovative strategies which are being used by the Indian Banks to improve their efficiency and competitiveness to meet the challenges to the globalization.

Massive branch expansion in the rural and underdeveloped areas, mobilization of savings and diversification of credit facilities to the either to neglected areas like small scale industrial sector, agricultural and other preferred areas like export sector etc. have resulted in the widening and deepening of the financial infrastructure and transferred the fundamental character of class banking into mass banking.

Today's business focusses not on customer service but on customer delight[1]. The task of acquiring new customers and retaining the existing ones assumes an unparalleled significance especially in the light of competition of banks and financial institutions.

Broadly Innovative practices for our study can be divided into 2 groups

1. **Policy Innovative strategies. (By Government)**
2. **Operative Innovative Strategies: (By Institutions)**

Policy innovative strategies by the Government:

Policy Innovative strategies of the government can be seen with legislations and committee implementations that were put in to boost innovative practices e.g.: fixing Credit Limits.

Operative Innovative Strategies:

Operative Innovative strategies are those strategies which involve with the tools of implementation to deliver services E.g. Direct Finance, Indirect finance, Number of Branches, Number of Employees ATM of a bank, Internet banking, online opening of accounts, online application for loans and advances etc.,

In the last couple of decades, IT has become an integral part of a Financial Institution's competitive advantage. During 1990's efficiency and cost-cutting used to the primary objectives of IT. Owing to relatively strong performance during economic downturn, banks have been able to evolve Implementations strategic approach towards investments

1 Moving from Customer Service to Customer Delight: An Ethnographic Study of the Relationship Managers in Banking Sector Dr. Damle Pramod[1], Dr. Ketkar Manisha[2]

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in IT. Saddled with high costs and integration challenges associated with the antiquated core banking systems, banks are beginning to consider IT based solutions to maintain the level of competitive advantage.

2.0 Literature review:

- **Dr. G P Sharma and Harsha Sharma**

  The term Innovation means to make something new. Innovation is introduction of a new good, introduction of new method of production, the opening of a new market, the conquest of a new source of supply, carrying out of the new organization of any industry. Indian Banking Sector has witnessed a numerous changes from decades. Value creation is an essential element in present era as market is buyer oriented. Most of the banks have introduced innovative techniques in banking in order to create value for customers and to add more and more customers in its network. In this paper we have discussed the various products & services offered by State Bank of India. SBI is a pioneer in providing various IT services. The research methodology adopted for this study is descriptive research study. The primary data is collected through interaction with the local branch managers of SBI and with the staff dealing with the IT services of the Bank. The secondary data is collected to substantiate the primary data. The various broachers, reports on IT of SBI, and the related articles of the relevant topic were referred for the study.

- **Maithili R.P. Singh**

  Gone are the days when banking industry used to operate in a protected environment. Liberalisation, Privatisation and Globalisation have opened floodgates of competition. Opening of modern banks has also given banking industry new taste in competition. Bankers can no more bank on walk-in-business and relax in cozy offices. Information technology has not only enhanced customer's awareness level but has made them demanding. Their expectation level is galloping. Demands and priorities are changing every day. The influence of the Internet upon the choice and delivery of products and services has made the situation acerbic. Customers no more want age-old banking products; they cannot be fooled and taken for a ride by changing the wrapper of the product. Never in the history of banking has the power so firmly been in the hands of customers as it is today. The struggle for survival in the cut throat competitive market is the biggest challenge of the time. For facing competition there has to be determination and skill of innovation. This has led to the embracing innovative business practices by various banks in India. The present paper highlights the historical backdrop, evolution of banking industry and recent innovative practices in this sector in India.

- **P. Aswin Prakash and B. Dr.Sathish Kumar**

The forth coming years for Indian industry will witness a transition in terms of technology and will also move faster from a seller's to a buyer's market. It will also see paradigm shift from local area to global operations. These changes will compel a major re-engineering of the market forces and players. We may also be witnessing a number of Indian companies which assisting and utilising this restructuring of banking industry. To add to this technological change a quite large number of mergers, acquisitions, take-overs, disinvestments and buy-backs may happen in Indian banking industry. To conclude Indian banking industry will operate with new concepts and benchmarks. The outcome of these may be witnessed by customer in terms of quality service at a cheaper operating cost.

- **DR. A. JAYAKUMAR and MR. G.ANBALAGAN**

The banking sector in India has seen a number of changes. Most of the banks have begun to take an innovative approach towards banking with the objective of creating more value for customers in the banks. Banking in India has already undergone a huge transformation in the years since Independence. The rate of transformation was particularly high in the 1990s and 2000s, when a number of innovations changed the way banking was perceived. Some of the significant innovations and challenges in banking industries in India will discuss in this paper.

- **Seema Malik**

Indian banking system touches the lives of millions of people and it is growing at a fast pace. Banking industry in India is facing number of challenges like changing needs and perceptions of customers, new regulations from time to time and great advances in technologies. The pressure of meeting these challenges have compelled banks to change the old ways of doing business. The research paper focuses on how the technology has transformed the face of banking in India. India's banking system has seen some major financial innovations in the past decades which lead to tremendous improvements in banking services and operations. The various innovations in banking and financial sector are ECS, RTGS, EFT, NEFT, ATM, Retail banking, Debit and Credit cards, free advisory services, online banking, mobile banking and many more value added products and services. This paper also highlights the benefits and challenges of changing banking trends. Banks are investing heavily in adoption of these innovations. The need of hour is to design such a system that encourages the efficiency of investment in innovations and widens the gap between revenues and costs involved with reference to technological up gradation.

- **Mr. Ankit Goel, Mrs. Parul Garg and Mr. Deepak Chaudhary**

Banks are one of the important professional institutions that interact with the masses and hold a unique & intermediary position in the economy. It influences the economic development of the country both in terms of Quality and Quantity. As in today's era needs and perception of customers are changing and other challenges too, the old way of doing banking is no more successful. India's banking system has seen some major financial innovations in the past decades which lead to tremendous improvements in banking services and operations such as ATM banking, NEFT,RTGS, IMPS, Online and Mobile banking. There is a further lot more scope to go forward. This objective of the paper is to find out the benefits and challenges of technology driven banking trends. Secondary data from various sources is used a research methodology. The necessitate of this millennium is to devise such a system that encourages the efficiency of investment, focus on future sustainability and can provide better customer service which leads towards satisfaction. The paper concludes by focusing on the current challenges, opportunities and future trends and scope of Innovative practices by Indian banking sector.

- **Sandeep Kaur**

The banking sector plays an important role in the development of one country's economy. The development of banking sector depends upon the services provided by them to the customers in various aspects. New entrants to the market, new business models, changing customer expectations and fragmentation of traditional services are all contributing to put traditional banks under pressure to launch new technology in their operations. The banking sector in India has seen a number of changes. Most of the banks start innovative banking with object to create more value customers. ATM, RTGS, NEFT, Internet banking, Mobile banking, SMS Banking and cheque truncation system are some existing innovations. But there are some new innovations used by the non-banking institutions and few foreign banks. These new innovations may be grabbed by the Indian banks. So, this paper enlightens the knowledge light on new innovations in banking sector.

- **Aruna R. Shet**

The banking sector in India has seen a number of changes. And to meet the challenges of changing needs and perceptions of customers, new regulations over the years and great advances in technologies, most of the banks have begun to take an innovative approach towards banking with the objective of creating more value for customers in the banks. Today we have electronic payment system along with currency notes. India's financial sector is moving towards a scenario, where it can have new instruments along with liquidity and safety. Arrival of card, introduction of Electronic Clearing Service (ECS) in late 1990's , introduction of Electronic Funds Transfer, Real Time Gross Settlement (RTGS), introduction of NEFT (National Electronic Funds Transfer), mobile banking, online banking are the various innovations in banking. Banks are investing heavily in adoption of these innovations. This paper highlights the benefits of changing banking trends.

3.0 Statement of the Problem:

The concept of Innovation can be put to use in every paradigm of life; it may be Individual, Institution or Society at large. In today's Competitive business world the concept of Innovation has become a life-line for survival and growth. As Banks and Financial Institutions constitute the back-bone of every economy, the prosperity of each sector of the economy depends on the support systems installed by the banking system. A sound financial system ensures the well-being of every sector and institution of the economy. Agriculture is one of the Important and Largest Sector of the Indian Economy with majority of the population associated with it. The Indian Banking system from post-independence period to the present period has showing vibrant and tremendous innovative practices in its systems and operations towards providing Loans and Advances and other ancillary services to the Agricultural sector. This study focuses on establishing the relationship between the Innovative methods of Agricultural finance in rural areas by Indian Banking System (Total amount of Advances, Number of Branches and Number of Employees) and their impact on Agricultural GDP of India.

4.0 Objectives of the study:

1. To Analyse the Innovative Operational Policies adopted by Indian Banking System in Agricultural Financing and their impact on Agricultural GDP.
2. To establish the effectiveness of Innovation in Banking and their role in Economic revival of the Country in Agricultural Sector.

4.1 Hypothesis:

H0: There is no significant difference between The Innovative Operational Policies adopted by Indian Banking System in Agricultural Finance and Agricultural GDP.

H1: There is significant difference between significant difference between The Innovative Operational Policies adopted by Indian Banking System in Agricultural Finance and Agricultural GDP.

5.0 Research Methodology and Analysis:

The Research is conceptual and descriptive in nature. The Total number of Agricultural finance (direct + indirect), Total number of Employees and Total number of Branches in Rural India are considered as Innovative Operational Policies adopted by Indian Banking System in Agricultural Finance. The data is collected from secondary sources with the help of Correlation and Analysis of Variance.

Year	Total Agricultural Finance (Direct + Indirect) Lakh lakhs	Total number of Employees (In lakhs)	Total number of Branches (in Lakhs)	Agricultural Output GDP (in Crores)
2011	24.65	2.09	0.36	8.80
2012	30.85	2.23	0.40	9.69
2013	37.89	2.34	0.45	11.13
2014	41.76	2.50	0.48	11.28
2015	47.61	2.51	0.50	11.50

5.1 Part-I

Calculation of Correlation (r)

Total Agricultural Finance(Direct + Indirect)Lakh lakhs			Agricultural Output GDP (in Crores)			
X	dx	dx Square	Y	dy	dy Square	dx dy
24.65	-11.9	141.61	8.80	-1.68	2.82	19.99
30.85	-5.7	32.49	9.69	-0.79	0.62	4.50
37.89	1.34	1.79	11.13	0.65	0.42	0.87
41.76	5.21	27.14	11.28	0.80	0.64	4.16
47.61	11.06	122.32	11.50	1.02	1.04	11.28
total		325.36			5.54	40.8

r = 0.96

r is > 6 PE

r is significant

Total number of Employees (In lakhs)			**Agricultural Output GDP (in Crores)**			
X	dx	dx Square	Y	dy	dy Square	dx dy
2.09	-0.244	0.06	8.80	-1.68	2.82	0.4099
2.23	-0.104	0.01	9.69	-0.79	0.62	0.0821
2.34	0.006	0.00	11.13	0.65	0.42	0.0039
2.50	0.166	0.280	11.28	0.80	0.64	0.1328
2.52	0.176	0.03	11.50	1.02	1.04	0.1795
total		0.13			5.54	1.086

r = 0.9647

r is> 6 PE

r is significant

Total number of Branches (in Lakhs)			**Agricultural Output GDP (in Crores)**			
X	dx	dx Square	Y	dy	dy Square	dx dy
0.36	-0.078	0.006	8.80	-1.68	2.82	0.1310
0.40	-0.038	0.001	9.69	-0.79	0.62	0.0030
0.45	0.012	0.000	11.13	0.65	0.42	0.0078
0.48	0.042	0.001	11.28	0.80	0.64	0.036
0.50	0.062	0.003	11.50	1.02	1.04	0.0632
total		0.011			5.54	0.2386

r = 0.98

r is > 6 PE

r is significant

Part-II

Further the study is also focussed to check the significant difference between the Innovative Operational Policies adopted by Indian Banking System in Agricultural Finance using ANOVA.

X1	X1Square	X2	X2 Square	X3	X3 Square
24.65	607.62	2.09	4.368	0.36	0.1296
30.85	951.72	2.23	4.972	0.40	0.160
37.89	1435.65	2.34	5.475	0.45	0.202
41.76	1743.89	2.50	6.250	0.48	0.230
47.61	2266.71	2.52	6.30	0.50	0.250
182.76	**7005.59**	**11.67**	**27.365**	**2.19**	**0.9719**

r = 3 and n = 15

T = Sum of all the observations in three samples

CF (Correction factor) = 182.76 + 11.67 + 2.19 = 196.62

$\frac{\text{T Square}}{\text{N}} = \frac{196.62\text{x}196.62}{15} = \frac{38659.42}{15} = 2577.29$

SST (Total sum of squares) = (sum of X1 Square + sum of X2 Square + sum of X3 Square) –CF

(7005.59 + 27.365 + 0.9716) – 2577.29 = 4456.63

SSTR (sum of squares between the samples)

$= \frac{\text{Sum of X1 Sq}}{\text{N1}} + \frac{\text{Sum of X2 Sq}}{\text{N2}} + \frac{\text{sum of X3 sq}}{\text{N3}} - \text{CF}$

$\frac{182.76\text{Sq}}{5} + \frac{11.67\text{Sq}}{5} + \frac{2.19\text{Sq}}{5} - 2577.29 = 4131.0$

SSE = SST – SSTR

4456.63 – 413101 =325.63

df1 = r – 1= 3-1 = 2 and df2 = n-r =15 – 3=12

Thus,

$\text{MSTR} = \frac{\text{SSTR}}{\text{df1}} = \frac{4131}{2} = 325.63$

$\text{MSE} = \frac{\text{SSE}}{\text{df2}} = \frac{4456.63}{12} = 371.38$

ANOVA TABLE

Source of Variation	Sum of Squares	Degree of Freedom	Mean Squares	Test Statistic	Calculated value
Between Samples	4131	2	325.63	325.63 / 371.38	0.8768
Within Samples	325.63	12	371.38		

Since the calculated Value 0.8768 is less than table value 3.8853 (df1 = 3, df2 = 12 and SE = 0.05) H0 is accepted. Hence we can conclude that the difference in the mean value of the three innovative practices is not significant. We infer that the innovative practices performance have homogenous impact.

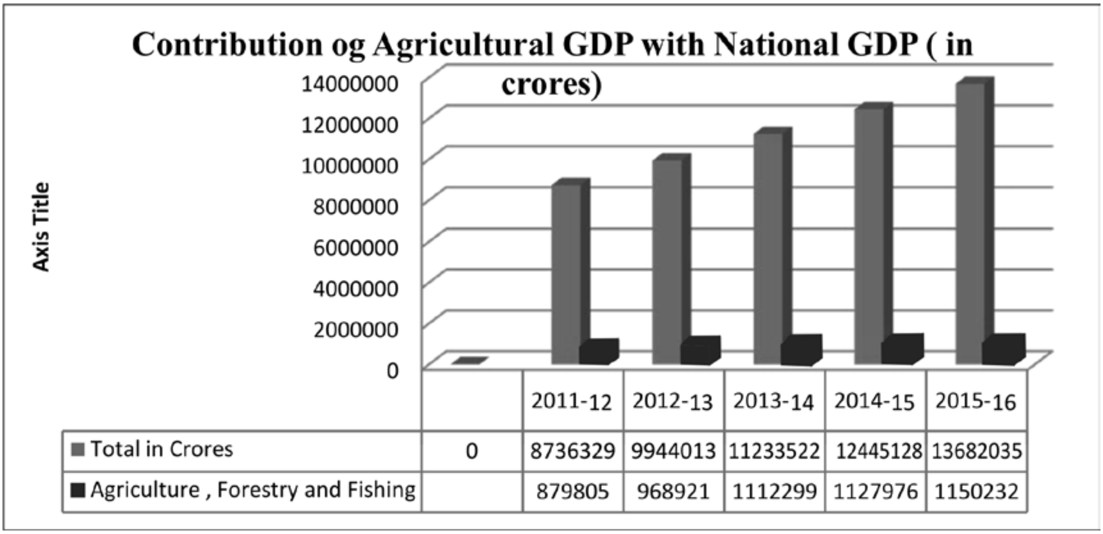
Part- III

The contribution of Agricultural GDP is compared with Total GDP of India, to show to what extent it is contributing to the Revival of the Economy.

National Accounts Statistics of India (2011-12 Series) @ current prices Domestic Product of

Economic activity (GDP at Market Prices Cost) in Crores

Year	**Total in Crores** in Current Prices	**Agriculture , Forestry and Fishing**
2011-12	8736329	879805
2012-13	9944013	968921
2013-14	11233522	1112299
2014-15	12445128	1127976
2015-16	13682035	1150232
Average	11208205.4	1047846.6



5.2 Findings:

- There is a strong Correlation between the Innovative practices followed by Indian banking system in agricultural finance and performance of agricultural sector in terms of agricultural GDP

- The impact of the innovative practices has a homogenous effect on the performance of Agricultural sector.

- Any increase in the performance of the Agricultural GDP will add value in the total National GDP, bringing the revival in the Economy.

5.3 Limitations of the Study:

- Generalization of the outcome cannot be made, as the research is restricted to the sample taken only for 5 years.

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A STUDY ON CONSUMER BEHAVIOUR IN THE DIGITAL ERA OF YOUTHS IN BANGALORE

Raghavendra H. S. *
Jenil Gonsalves **
Deepika Joshi ***

Abstract

"As marketers, we should be changing the mantra from always be closing to always be helping." - Jonathan Lister

In this world of trading, people tend to have a better livelihood. To make it possible, business has become a major requirement. People use different mediums to make their business a successful one. In this, marketing is playing a vital role. Entrepreneurs find this as most creative strategy to develop their business. Marketing of commercial activities like buying and selling of products and services came into existence from the late nineteenth century. Most importantly, consumer behaviour has become significant topic of discussion throughout the marketing process. The main objective behind the consumer behaviour is to understand their requirement, their interest towards the product or the service.

In last few years, a lot of studies have been made on the consumer behaviour. For example- demonetisation in a nation and influence on consumer behaviour; in the period of normal state. The presented study is focused around consumer behaviour based on the recent digital trend like online store. Youths are found to be more influential in this stream. The study is related to their utilisation of digital products in this era. Presented study gives a clear picture of how behaviour of consumer differs with this digital era.

Key words: *Consumer behaviour, Digital era, Youths Demonetisation.*

Introduction

(Pandey, M., 2007) Society is full of people with different political social, cultural legal, economical viewpoint. Each one of them varies in their preferences of product and services. The factors like inflation and demonetisation has influence on their choice of brand, usage, budget, loyalty, personal lifestyle etc. Consumer behaviour means various

* **Raghavendra H. S.,** Students, M. Com, St. Joseph's College of Commerce, Bangalore Email: raghav82habib@gmail.com

** **Jenil Gonsalves,** Students, M. Com, St. Joseph's College of Commerce, Bangalore

*** **Deepika Joshi,** Faculty, St. Joseph's College of Commerce, Bangalore
Email: deepika@sjcc.edu.in

dimensions based on which consumer takes part in decision making for buying product or availing services. Consumer himself plays a significant role in providing information about what does a consumer want? They provide information about which brand does he prefer? Consumer behaviour is not static; consumer behaviour undergoes a change over a period of time (Blundell, R., 1988). Like kids prefer colourful or fancy footwear, but as when they grows up as a teenager they may prefer a formal footwear.

India marks the 1st anniversary of demonetisation on November 8, 2017. An analysis was made on the process of demonetisation and its consequences over the past one year. The biggest noticed advantage is that it helped the government to track people who have unaccounted cash. On the other hand decrease in liquidity lead to decrease in demand thereby decreasing in consumer market. At this juncture digitalization endowed businesses a means to run operations and drive profit from it.

Digital era is also called as information age. During 18th and 19th century the business records and transactions followed the traditional ways. But current century is witnessing digitalization. The businesses which used to happen only by visiting shops are now absolutely digitized. Digitalization has improvised year on year. New devises like smartphones, computers, laptops and smart watches are taken into consideration in the market to make the mode of payment. Browsing and purchasing power by consumers have shown a lot of development. Digitalization has also made to build up new applications so that it would be easy for the customers to handle or use the app. Procurement of employment has become easy in this digital era.

Review of literature:

The world is showing a rapid growth in a number of aspects. This has led to development of a lot of resources which has made human task more and simpler. The major reason behind this development is advancement in science and technology. Science and technology has given a rise to the business sector activities which has made the business procedures simpler. Competition is throughout. Due to competition business are being forced to put lot of funds towards science and technology. Failing to invest funds for technology led to lose reputation and increase market competition.

Marketing has been a major aspect is any business. It is the only aspect through which one would make a business a successful one. Consumer satisfaction is the concept which has been discussed throughout the marketing process. The marketing in this generation is done through the digital way and also the advanced way of science and technology (Jozef Matúš,2015). Over the period of time a frequent up gradation in digitalization has been seen which leads to the increase in competition.

Jozef Matúš(2015) in one of his researches mentioned digitalisation as a basic requirement of doing business these days. It simplifies the way of doing business. It has become a need of time for consumers in order to save time and in availing more options. Some of the purpose in might be to promote product, improve sale proceeds and to aid the marketing process. Consumers, specially the youths are also making this a more beneficial. They have been used to the modern way of purchasing the products. Some of them might also include online purchase of goods and services which will save their time.

Marketing through digital means will enable a business to run in an efficient manner. It enables the business to track their records in a better way. At the same time it is required by the consumer for their better way of purchasing a product. Consumers have been enabled with various services which are atmost required for them. Certain evolution of digital era also includes mobile marketing as their way of interaction with the consumers; mobile marketing is more effective way and also has become a primary way of communication with the consumers. The youths are found to be more involved in the social media and hence the marketing through social media has also turned out to be a more effective way of marketing. Brand recognition of a product is increased by the way of social media marketing.

When consumer tends to purchase a product through online, he/she might have a fear about their transactions (Chung-Hoon Park and Young-Gul Kim,2003). Initially it was a major problem faced by the business, when they had to opt for digitalisation. This was resolved after gaining the mutual trust from the consumer and about their transactions. Once when a business is well versed with the ideology about digitalisation they would proceed with it. In the later stages when there was a growth in the competition consumers started entering into transactions with them. When youths are taken into consideration, they play a proactive role when it comes to the matter of digitalisation (Chung-Hoon Park and Young-Gul Kim,2003). In digital market youths are considered to be the smartest consumers among rest of the category. Hence there is more probability that they would take a wise decision while buying the product.

In case of online business models which includes feedback, has become a good avenue for business. Considering youths to be significant respondents in business as they have great knowledge about feedback process organizations can develop fast and focused. Youths taking part in those activities would add on a good weightage in decision making for the business. This leads to better consumer satisfaction and

Demonetisation as one of the biggest shake to Indian economy has affected majorly all the business sectors (Rani, g.,2016). But the Indian organizations didn't lose their hope. The study which was made by Gunjita kumar(2017) reveals us about its advantage. In this, the research author concluded that consumers got used to digitalisation before demonetisation. The consumers were more aware about the alternative sources, which allowed them to go cashless. The digital era was an essential way where in one could sort out their problems on these sudden changes.

Many online retailers in this era started take advantage of this modern technology (Pandia, p.k., 2017) . When a consumer is out of cash they prefer to pay through online means. The trust which a organizations wants to gain among consumers is very much essential in the digital era. Among many cities in India, Bangalore is considered to be the most influential with digitalization. The youths have much access towards social media and many other digital activities(Vincent, D., & Nithila, T., 2006). The major reason behind youths using the online shopping is just because of its availability. They can access the facility anytime and anywhere. In the present day scenario, people prefer the digital mode of payment rather than having the real time cash transaction. The presented study is theoretical in its nature and conveys the facts about shopping behaviour in digital market place.

As per the study which was made by Dr. Kathetrine Taken Smith (2011) youths are being considered as the best opinions leaders where anyone could collect an appropriate information. Different businesses differentiate on their functional strategies to promote the product this way. The study reveals that over 90% of the total youths own gadgets like mobile phones and PCs they get the brand awareness through them. The digital marketing basically aims at providing the products which are more impressive towards the youths. The youths are moreover addicted towards their gadgets. They are aware about the products only through the social media advertisements

Certain online retailers came up with various extensive offers like applying coupon codes to avail the discounts, giving certain commodities after buying the products initially. This led to the advancement in their business. They mainly captured youths for being a part of this. As youths, they are aware about how to take the advantage through these digital means.

The online marketing increased the number of consumers as it decreases the expenditure incurred by the consumers towards travelling for purchasing. The product will consume a lot of time for this process to happen. Initially the consumers appearing in the outlets were quite frequent due to the lack of digital knowledge in them. Youths are major inspiration for all categories in using digital way of consuming the goods.

When speak about the retail shop keepers in this digital marketing era, there are a lot of businessmen who lost their way of business because of the online marketing. There was no other option for them apart from upgrading themselves and adapting to the new changes which will happen. For youths the exposure promotes consumer and shopping behaviour by telling the importance. By this rest of the users come to know use of this technology and the ways they are taking the active steps in promoting the digital era.

The benefits of online trade is more beneficial one, one could collect the specifications about the product, tracking the product and so on. This will carry add on benefit for the consumer while buying the product. Youths are found to be more active on internet browsing for a lot of information, the advertisements like pop up ADs, the advertisement which is shown in the middle of the video grabs their attention towards the product.

The challenges which are faced by the markets is knowing the demand by the consumer towards the product. The major way of obtaining their attention toward the product is that they should gain a lot of good reviews from the existing consumers. The major way of obtaining this is by providing the good service initially which also pressurises the consumer to give a good review about their product.

As being the youngsters, they prefer seeing the reviews and proceeding with buying the product. So the main intension of the marketer would be with collecting the positive reviews from the consumers. The youths will not take the risk of purchasing the goods without any positive reviews about the product. For instance, the phone which is trending in the market, like having a cheaper price with more features in it consumer will tend to buy that phone by collecting a lot of information about the product with the existing users to make sure that they are not cheated by the seller of the product. This digital era not only grabbed the attention of the youths instead paved a way for all the generation for being the part of it. Hence youths were considered to be the major target while marketing a product.

Research gap and research objectives: Literature survey revealed that digitalization is the need of current business practices. There are many researches available on the effect and influence of demonetization on digitisation. But there are very few researches available stating its influence on Bangalore based youths and the behaviour exhibited by them. Considering it as a vital research gap the objectives of the research has been devised. These objectives behind this concept based study are a) to observe the trend of digital marketing among youths; b) to know the impact of digitalisation and the predominant role played by it before and after demonetisation c) to gain a knowledge of trend of online shopping.

Concept based discussion:

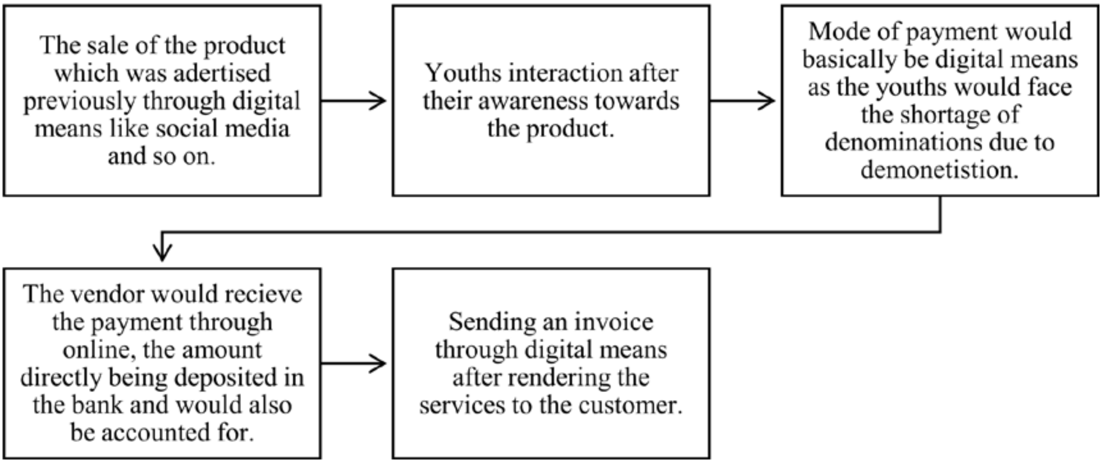
The digital era is turning out to be the familiar concept in the modern age. Literature suggested lots of advantages of digital marketing. The youths are found to be more knowledgeable people amongst all categories of consumers. They understand the modern business trends and how to drive full benefits out of it.

Consumer's perception differs and their behaviour also varies. It ranges from how sellers grab consumer attention to how they manage to sell it. Indian economy has witnessed many situations wherein consumers themselves choose for digitalisation. Consumers had no option apart from opting for digitalisation. The metropolitan cities like Bangalore which is considered to be a IT hub are among the few first ones to opt for digitalization. The previous studies tell that the youths are much exposed towards this digital era. They took the active steps to resolve this problem of demonetisation through digitalization.

Social media being vast mode of marketing sites these days has caused a lot of effects to the marketing sector. People advertise their products through social media. A lot of advertisements can be seen on familiar social sites like Facebook, Twitter and Instagram. A restaurantt (Kraak, V. I., Gootman, J. A., & McGinnis, J. M. (Eds.)., 2006), like Onesta is exclusively dependent on the use of social media. They try to impress a lot of customers by providing them with some great deals. This not only attracted the youths but all the categories of customers.

There are various marketing models and advertising models to sell product in an efficient manner. These models acted as pro-active step in marketing. They convey lot of strategies which improvise businesses. One of the best strategies that the business found was to utilize digital marketing. It not only promoted but also helps selling goods or services in this digital era. The change in the consumer behaviour (specially the youths) after demonetisation is shown in figure I.

Figure I



Youths were the major target market they got an idea of how this digital market would work out. Bangalore based youths are very well versed in technologies. Hence this was the mantra of the marketing process, especially when it comes to the digital era. It was advisory that not only the youths taking the major part in it. It was the responsibility of each and every individual to get used to it.

Conclusion and Limitation:

With the boom in technology through smartphones and tablets the digital marketing has reached a new high. Those who were previously unaware of technology are now learning about it. From the above theory based discussion we conclude that technologies are becoming a more complex driving force in the societal developments. Consumer behaviour in digital age is an ever-changing and ever-expanding anomaly. Staying in tune with consumer behaviours, tastes, and impending trends can help brands stay relevant, visible and engaging the customer base and prospects. It is ever more difficult to predict the ways in which new technologies shape societies and societies shape technological developments. As noticed for the music industry which turned its products into the digital, with this the music download stores have become a successful business. The reasons can be searched for both in technology and in the changed consumer behaviour. When technologies do not meet consumer's primary needs and wants, they will most apparently fail to achieve organizational objectives. The current study shows technology and its characteristics are only one side of the coin. The other side, being perhaps even more important, is the psycho-sociological factors behind the consumers' thinking and behaviour. These factors include attitudes, social pressure and an individual's ethical thinking. A drastic change in modern societies took place in the middle of the 1990's when the internet started to infiltrate everyone's life. Individuals born during those few decades are usually referred to as Digital Natives.

This study is limited by the facts the time duration. It focuses mainly the Bangalore based youth's lifestyle and their digital behaviour. In the series of our studies, we had several opportunities to study the thinking and behaviour of adolescents and young adults. Further studies can bring on empirical examination of presented theoretical discussion. In extension of current concept can also compare the digital behaviour of older age groups with youths. Although no systematic comparison research on the phenomena exist in literature. A study of triangular relationship between technology, business and consumer exists in literature but how it is affected by a new consumer generation, both directly and indirectly still need to be done.

Digital piracy and the generation's attitude towards it gives a good example of power exhibited by youths on businesses. It also implies that these issues are becoming ever more societal concerns. India being most populated country is trying to gain access to digitalization to all the sections of the society. Though it will be a slow process but the motive to make India a paperless country is a good thought. It is necessary to make people aware and educate them to use it efficiently and effectively. Thus Digitalisation has made a tremendous change in the society and the country is slowly encouraging their citizen towards Digital India is a good move.

Managerial implications:

In the fast growing world, due to factors like liberalisation, privatisation and globalisation, the key managerial success depends on how the business attempts various adverse situations. The responsibility of each business is to satisfy consumer needs as well as the wants at the same time. The manager's responsibility is to lead the business in the successful path and to cross all the hurdles which will occur in the usual stages. Managers make customers work simpler as they expect. The only way through which one could attend this success is through the digital means. The digital means has shown a lot of up gradation in this digital era.

Presented research suggests that the existing business and the future business ventures should get used to the new technology which has been adopted by most of the successful business enterprises. Some of the businesses which are making the whole use of digital technology make the utmost utilisation of available resources.

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A STUDY ON E-WASTE MARKET IN KARNATAKA

Prof. Narendra Babu B .V. *
Indus Business Academy **

Abstract:

With the increase in youth population with significant buying power, India offers significant potential for electronic goods consumption. With the increased consumption and the reduced end of life period for electronic goods, it is very logical to comprehend that; e-waste is going to be a colossal problem which needs to be managed effectively. India currently produces 1.85 million tons of e waste every year. Although the per capita generation of e-waste is only around 2.25 kg per year, the total e-waste generated across India is one of the largest in the world. Also, a clear market design to control the supply of electronic goods with predefined arrangements to collect and inventorize after the end of effective life is missing. The current paper evaluates the existing market design and thus proposes the requirements of a sustainable market by taking to consideration the various stakeholders in the e-waste management sector.

Research Methodology includes both primary as well as secondary research. Information related to various rules, policies and guidelines are obtained from various articles and websites. Primary research is carried out by visiting various governmental organizations like Karnataka State pollution control board, KEONICS etc. and by conducting survey on organizations and households to collect relevant information. The result of this research would be to identify the gaps in the existing E-waste market and its management. The research paper would propose a model to explain a new market design that is more efficient and sustainable.

Key words: *E-waste, Market-design, Stakeholders, Management*

Introduction:

With the onset of the economic reforms, India has transformed itself into one the fast growing economies in the world. It has made significant gains in key economic sectors like Information technology; IT enabled services, Services etc. Although, the economic growth has resulted in development, but it has also brought in many externalities to fore. One of the externalities is the management of

* **Prof. Narendra Babu B. V.,** Assistant Professor, Marketing Department.
Email: bv.narendra1@gmail.com

** Indus Business Academy, Taataguni Post, Lakshmi Pura, Kanakapura Road, Bangalore.

e-waste which has become a major area of concern.

Karnataka has been at the center of development and Urbanization, which has resulted in significant degradation of the ecological parameters like soil, water and air in Karnataka. This effect is drastically accentuated in cities like Bangalore because of drastic Industrialization. The soil, water and air are getting polluted by mixing up of toxic chemicals like Lead, Arsenic, Mercury, Beryllium, Cadmium etc. High levels of lead causes lead poisoning which may distort brain development, causing damage to nervous system. High levels of mercury may create skin and respiratory disorder and may also cause brain damage. Beryllium can cause skin diseases and dangerous allergies. These elements are getting mixed with water bodies and lakes and thus have contaminated them. A survey conducted by Lake Development Authority to understand the degree of pollution in various lakes in Bangalore has revealed that, the mercury level in lakes in Bangalore is around 1.18 mg / liter, which is way beyond the acceptable limit of 0.01 mg/ liter. One of the main reasons for this type of chemical pollutions can be attributed to incorrect disposal and dismantling of e-waste. Today, e-waste is one of the main sources of harmful chemicals especially Lead and Mercury that pollute soil, water and air. It has to be noted that, because most of the electronic waste gets disposed into landfills, elements like Mercury and Lead has leached into ground water. Because of the incineration of the non-recyclable e-waste, vapors of mercury and lead have mixed up with the air, polluting it substantially.

What is E –Waste ?:

According to E-waste monitor 2014, by United Nations University, E-waste is a term used to cover all items of electrical equipment and its parts that have been discarded by its owners as waste without the intent of reuse. It is also referred to as WEEE (Waste Electrical and Electronic equipment).

E-waste can be classified into following six categories:

1. Temperature exchange equipment: Eg: Refrigeration, Freezers, Air conditioners, heat pumps.

2. Screen monitors: Eg: TV, laptops, Notebooks etc.

3. Lamps: Eg:- FL, CFL, LED lamps etc.

4. Large equipment Eg: Washing Machines, Cloth dryers, large printing machines, copying equipments etc.

5. Small equipments: Eg:-Vacuum cleaners, microwaves, toaster, electric kettle, calculators, radios, video cameras, electrical and electric toys, small electric and electronic tools.

6. Small IT & Telecommunication equipments: Mobile phones, GPS, Pocket calculators, routers, personal computers, GPS, routers etc.

E waste has a combination of toxic chemicals like lead, cadmium, beryllium, arsenic, mercury, chromium and copper which can cause chronic diseases and irreversible damage to human body if they enter.

E-waste Management landscape in Karnataka:

According to Karnataka state pollution control board (KSPCB), the amount of e- waste produced across Karnataka is not correctly inventoried and quantified. Hence, the actual data about how much of e waste is created in Karnataka is ascertained incorrectly. However, according to KEONICS, Karnataka ranks 3rd in e-waste generation in India in 2016 and Bangalore ranks 3rd in the list of cities for e waste generation with approximately 90,000 Metric Tons.

Gold and silver is extracted from the shredded Printed Circuit Boards (PCBs). If the PCBs have precious metals that cannot be recovered, then the recyclers export the shredding to UMICORE, Belgium. Apparent gold and apparent silver which are extracted during processing are used in electroplating and are picked up by the electroplaters. Also, copper that is extracted by processing e waste is utilized by Agricultural product manufacturers, Chemical reagent manufacturers etc. The glass cullets are normally purchased by Television manufacturers. For example, Videocon purchases glass cullets to manufacture CRT. The recyclers dispose the non recyclable waste like batteries to Treatment storage plant. Other non recyclable wastes which does not have hazardous impact are sent to land fill.

Output	Selling Price Rs/ Kg	Purchaser
Shredded Plastics	8-10	Plastic Granule Manufacturer
Scrap Metallic Parts	14-22	Metal Scrap Trader
Aluminum Parts	70-80	Aluminum Scrap Traders
CRT glass cullets	1-2	TV manufacturers

Table 1: Purchasers of dismantled e-waste out

When PCBs are dismantled, normally, Gold, Palladium, Silver, Copper etc are extracted. Table 2 explains the value of the extracted precious metal after dismantling and processing of PCBs per ton.

Value of PGM per ton of PCB*			
	Weigh (g or kg)	Cost (/ g or kg)	Value (Rs)
Gold (g)	390	3000	1,170,000
Palladium (g)	90	1200	108,000
Silver (kg)	1.5	47047	70,571
Copper (kg)	190	435	82,650
Lead & Tin (kg)	31	233	7,223
Aluminium (kg)	145	103	14,935
Other	(assumption)		10,000
Total (Rs)			1,463,379

Table 2: Value of precious metals per ton of PCB

KSPCB has identified 84 recyclers and e waste dismantlers across Karnataka. Out of the 84 recyclers only 54 are currently operational with a total capacity of around 44600 M T. and 30 others are yet to commence operations. The total capacity of all the recyclers and dismantlers (all the 84 recyclers) is around 75000 MT as per the information from KSPCB. According to the list released by KSPCB, most of the recyclers and dismantlers are located in Bangalore urban and Bangalore rural.

At present, nearly 90% of the e-waste is processed by the informal sector which does not have any formal training about e-waste dismantling and recycling without having any significant impact on the environment. The Indo-German-Swiss e-waste initiative is currently involved in providing formal training for e-waste recyclers and empowers them towards becoming formal, technology driven recyclers. E-parisara is one such initiative which got developed by the efforts of Indo-German-Swiss e-initiative. Saahas pvt ltd which is a NGO in Bangalore is associating with Indo-German Swiss initiative to creative awareness and to train the informal recyclers. Saahas has been working closely with several partners including the Karnataka State Pollution Control Board, GIZ (formerly GTZ or German Technical Cooperation) and EMPA (Swiss Federal Laboratories for Materials Science and Technology) to study various issues related to generation of e-Waste; its flow through the system, recycling and final disposal.

Saahas is also the implementing partner for 'Establishing e-waste Channels to Enhance Environment Friendly Recycling (WEEE-Recycle) programme. The WEEE Recycle programme is a GIZ-ASEM initiative with partners Adelphi, Toxic Links, and MAIT. It is implemented across four cities Bangalore, Kolkata, Delhi, and Pune. In Bangalore, the programme supports small scale authorized e-waste recyclers (who earlier worked in the informal sector) to strengthen their capacities.

E – waste Industry Analysis in Karnataka:

New Entrants:

Government Policies:

Government has formulated rules and regulatory guidelines in 2016 which give direction towards overall e-waste management. The rules and guidelines are mostly directed towards the various stake holders of the e-waste value chain (i.e., electronic goods producers, e-waste collectors, e-waste recyclers, dismantlers, refurbishers etc).

The recent guidelines and rules for e waste management (2016) emphasizes on the roles and responsibilities of producers specifically concentrating on Extended producer Responsibility (EPR). This holds the manufacturer of the product liable for recycling and disposal of the waste.

The state government considers the e-waste recycling and dismantling enterprises as MSMEs and therefore, Government of Karnataka in its Industrial policy for 2014-2019 has mentioned that, a subsidy amount limited to Rs 10 lakhs may be given to companies (that are operating in Zone 4) which are involved in e-waste dismantling and recycling.

Since, collection of e-waste is one of the major problems; government has made a significant move by making post offices as collection points. Since, government offices and government departments come under category of bulk consumers of electronic products; government has allocated the responsibility of managing e-waste to KEONICS. KEONICS is given the responsibility to float tenders for e-waste and then identify the recyclers to process the waste.

Governmental policies have been very supportive towards new companies and new entrants can enter the industry by complying with the formal guidelines established by the government.

Technology & Economies of scale: Some Players who are already in the business of e-waste recycling are technology driven and use high end technologies to separate and process e-waste. However, most of the technologies are well documented and pervasive. So, new entrants can get the same or higher technologies as compared to the existing players. Technological superiority may not be a barrier for the new entrants. In-fact, most of the recyclers in Karnataka has recycling capacity per year. E- Parisara pvt limited with 8800 MT, K G Nandini Enterprises 7200 MT and M/s TES-AMM pvt ltd with 12000 MT are the top recyclers of e-waste. Recently, Cerebra technologies have started a recycling plant near Kolar with significant capacity. Therefore, the issue of Economies of scale might not be a barrier if new entrants enter with new technology and processing capacity.

Substitutes: The most easily available substitute for e-waste recycling and processing is land fill disposal. Switching to landfills almost cost zero but would significantly affect the environment.

Buyers Bargaining Power: Prior to dismantling and recycling, the collectors of e-waste will collect from the households. Organization / Institutions with multiple units collect the e-waste and auction the e-waste once in 3 months or 6 months. The collectors of e-waste take the secondary sellers position and can sell / auction the e-waste to recyclers / dismantler (who buy the e-waste) with the highest bid value. Also, post dismantling and processing of e-waste, the extracted material will be bought by manufacturers of goods and electronics.

Here, these buyers are manufacturers and OEMs. They will buy the product at the market price. The Switching cost for Buyers is low as they can buy the e-waste from any supplier and without incurring any cost. Buyers (recyclers) in this industry can actually set up their own collection points to collect the e-waste. The Bargaining power of the Buyers is moderate.

Suppliers: The Primary suppliers in this industry are the households who generate the e-waste. They do not have any bargaining power as the e-waste that they have is of zero / less value to them and the households at times will have to pay the e-waste collectors for picking up the e-waste towards logistics. The households will have to settle for the price set for the e-waste by the e-waste collectors at the time of collection. However, the secondary sellers (e-waste collection) sell or Auction the e-waste to the highest bidder. In this industry, the tertiary suppliers are the e-waste recyclers who recycle and sell the extracted materials to manufacturers and OEMs. These tertiary suppliers (recyclers) have less Bargaining power as most of the manufacturers &OEMs will buy at the market price. The primary and secondary sellers of e-waste may establish their one recycling units and set up their own supply network to supply the extracted materials.

Market Competition: The market is a competitive market with more and more number of players entering every year. The market size pan India is around 13 billion US dollars. With the increase in the consumer base, the market is expected to grow at around 30% annually. The market competition is high. However, market share cannot be defined clearly because most of the e-waste is dismantled by unorganized recyclers.

Market Design: According the market design concept, a well designed market is free from the clutter that happens on the supply side / the demand side and thus behaves efficiently. However the e-waste market seems to be significantly cluttered on both supply and demand side. There are significant gaps in the market design.

In order to understand the gap and various factors that affected the market design, primary as well as secondary researches were carried out as mentioned:

Secondary research:

Information from various web sites including KSPCB, KEONICS were taken to understand the various governmental rules and regulations related to e-waste management. Articles from various news papers like The mirror and Times of India, were taken to understand the current situation. Article published by Harvard Business Review on Market design was taken as a basis to understand the concept of Market Design.

Primary research:

Survey to understanding the awareness towards e-waste: A survey was conducted along with ER3 solutions in Bangalore to understand the awareness about e-waste management in Corporates and educational institutions. The sampling size taken for this was around 30. the strata. The scope of the study was to understand the level of awareness among Corporates and institutions regarding electronic wastes in Bangalore. The survey showed that, 70% of the organizations do not have a policy or strategy for the management of e-waste. The research also found that 23% of the organizations dispose e-waste through Authorized recycler. Around 20% of the organizations dispose off their e-waste by giving it to the local scrap dealers (Kabadiwallahs). The survey also found that, organizations do not have a set time period to dispose off their obsolete electronic assets. They dispose off when required or when e-waste is generated and needs to be disposed off.

Primary data was collected from KSPCB (by having a interview with the official of KSPCB) about the governmental actions and policies to regulate the e-waste recycling and processing Industry as a whole. KSPCB has identified / Permitted 84 recyclers and e waste dismantlers across Karnataka. Out of the 84 recyclers only 54 are currently operational with a total capacity of around 44600 M T. and 30 others are yet to commence operations. The total capacity of all the recyclers and dismantlers (all the 84 recyclers) is around 75000 MT as per the information from KSPCB. According to KSPCB, the amount of e- waste produced across Karnataka is not correctly inventoried and quantified. Hence, the actual data about how much of e waste is created in Karnataka is ascertained incorrectly. KSPCB is currently in the process of inventorizing the amount of e-waste generated in Karnataka. KSPCB has listed 6 incinerators for incinerating the e-waste that cannot be recycled.

Currently, government has identified KEONICS to manage the e-waste produced by Government offices and departments.

Another Survey was conducted to understand the role of the major Electronic / Electrical goods retail chains in e-waste management. The retailers taken for this survey are Croma, Reliance digital, E-zone, Girias, Pai electronics, Samsung , Sangeeta Mobiles, Poorvika mobiles, HP service centre, Micromax Service centre. According to the survey, most of the electronic / Electrical goods sellers do not have clear e-waste management policy within their chain. Also the survey revealed that, most of the retailers do not explain the harmful effects of the electronic /electrical goods when they lose their effective life. Only Croma is involved in creating awareness to students at various campuses about the ill effects of e-waste. This is a part of their CSR drive.

Almost all the electronic / electrical retailers have a buy back policy through a vendor who fixes up the price for the e waste and collects the e-waste from the customers. The retailers do not have any role other than sending the vendor to the customers. As part of the Extended

Producer Responsibility, almost all of the retailers have Buyback policy through e-waste vendors. However, Deposit Refund scheme is not followed by any of the retailers. Most of the retailers (80%) mentioned that, most of the customers opt for new electronics for up gradation because of advancement in technology (like 3G to 4G etc) and thus opt for buyback.

The secondary research and Primary research revealed significant gaps in the existing market mechanism for e-waste management. The collection and inventorization of the e-waste seems to be a major problem as most of the e-waste is processed by unorganized sector. Since unorganized sector holds the major control over collection of the e-waste, proper system and regulation needs to made so that, the activities of unorganized recyclers and dismantlers are monitored.

Although KSPCB has given permission to around 84 recyclers, the currently operational recyclers and dismantlers are mostly concentrated in and around Bangalore. The central and northern Karnataka has less concentration of recyclers and dismantlers. These areas are mostly covered by unorganized waste collectors. New start up opportunity exists in these areas in organized e-waste recycling and dismantling. However, most of the incinerators and composite effluent treatment plants are located in and around Bangalore urban and rural district which is an indication of the fact that, the unrecyclable solid waste and effluent waste cannot be properly handled in other parts of Karnataka.

With the given start up policy and Industrial Policy, Government of Karnataka has not come up with substantial steps that provide impetus to e-waste recycling and processing enterprises. Although, e-waste management rules of 2016 and the guidelines of 2016 propose "Extended Producer Responsibility", in reality it has not come to effect fully even after one year of its proposal.

E-waste management model:

The primary and secondary research revealed major factors which would play a significant role in the e-waste market. The factors are 1. Governmental Regulations and policies, 2. Awareness 3. Consumer Base 4. Carrying capacity. All these factors will have significant impact on the value chain in the e-waste market. According to this model (Figure 1), each factor will have influence on the other and thus on the value chain.

The Governmental regulations and policies: will have to be formulated and executed so that, the customer base is managed and compelled to manage the e-waste. The policies and regulations should adequately facilitate for awareness creation about the impact of e-waste on the environment and on Human beings.The governmental policies and regulations should be directed not only towards the customers but also towards the e-waste recyclers and processers.

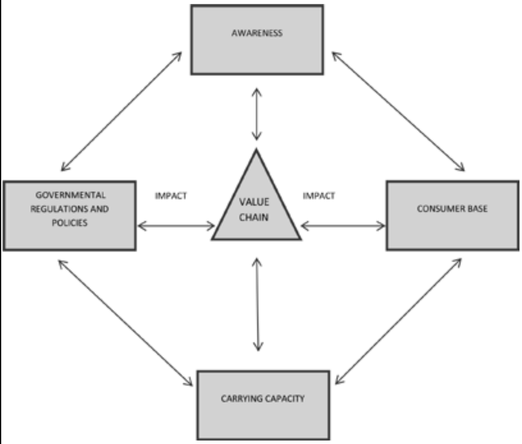

Fig 1: E-waste management model

An incentive mechanism needs to be instituted by the government to bring about a market mechanism towards e-waste Management. Government will also have to bring about the policies and regulatory mechanism towards collaborating government authorities, private partners to create awareness, training and development etc towards e-waste management.

The carrying capacity: Carrying capacity is the capacity of any region or system to support certain population size without the further addition of any external agents / pollutants. The carrying capacity gets reduced when the level of pollutants rise in the basic factors (soil, air and water) of the environment. There is a limit till which the carrying capacity does not get affected because of the pollutants. However, it would get irreversibly damaged if the pollutants continuously add up. In order to maintain the carrying capacity, the governmental rules should regulate the system so that pollutants are not added. Pollution of hazardous waste needs to be measured and assessment of the carrying capacity needs to be done. Proper awareness should be provided to the consumers so that, they use the electronic products in a way that does not harm the carrying capacity. Technological intervention normally increases the carrying capacity of the area. Therefore, such options need to be explored through research. The consumers should be compelled by regulations by the government to dispose the e-waste properly once the effective life is finished. Proper research needs to be instituted to understand the carrying capacity.

Awareness about the impact of e-waste on the environment needs to be explained to the customers. Government will have to make it mandatory, the requirement of creating awareness about the e-waste and its harmful effects. Some of the policies like “Extended Producer Responsibility” and the role of the “bulk consumers”are not fully understood by the electronic goods sellers and also the users. Therefore the awareness about these is very essential. The awareness about the harmful effects of e-waste needs to be explained to recyclers and dismantlers in the unorganized sector.

Customer Base: The rate of e-waste creation is defined by the consumer concentration in an area. Also, the consumption rate of the consumer base is also a factor in e-waste generation. The behavior of the customer base depends on the incentive that they get for safe disposal of the e-waste. Their behavior is also influenced by the awareness level of the consumer base. Therefore the consumers / customers should be regulated and managed to have a shift towards an economy of Reduce, Reuse and Recycle. Customers should be given awareness about the long term impact of e-waste. A clear responsibility needs to be fixed on the customer base to dispose off the e-waste systematically.

Given the fact that, e-waste generation is going to increase multiple times in future, a clear market system with proper regulatory mechanism needs to be defined, so that, managing it becomes effective and efficient. The e-waste management model proposes for an efficient market model taking into consideration all the factors that impact the value chain in e-waste management and thus provides for a basis for efficient market design towards e-waste management.

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Customers Perception on Security System in E-Banking Services with special references to Online/Net Banking

P. Sailaja *
Dr.V. Thamodaran **

Abstract:

The emergence of E-Banking (Electronic Banking) changed the entire revolutionary concept thereby increased the usage widely leading to more innovation, development in banking technology. In which one of the major development and vastly used in combination of E-commerce and E-banking technology is Online/Net banking. Online/Net Banking helps in online payment and transparency of cash transactions for both to the banks and the customers. The other major E-Banking services are ATM, internet/online banking, Net banking, Mobile banking, SMS banking and Phone banking. This paper has dealt with customers' satisfaction towards security system in Online/Net banking as part of e-banking and its preventive measures.

Keyword: *Security system in Online/Net banking*

I. INTRODUCTION

1.1 Concept of E-Banking

Due to advancement in Internet, WWW, Mobile Technology, Smart phones and E-Commerce many innovations started craving and implemented keeping a motto to ways to make it electronically digitized for easy operations at your fingertips for users, business, government, banks etc. Based on which one of the biggest breakthrough and presently used at a large scale all over the world is E-Banking I.e. Electronic Banking. The emergence of E-Banking changed the entire revolutionary concept thereby increased in usage widely and thereby more innovation, development and increase in online shopping, e-commerce, e-payment and banking.

E-Banking is where banking is done electronically through various technology and devices like ATM (Automated teller Machine), Online/Internet Banking / Net banking, E-Payment, Mobile banking, Phone banking, SMS banking, swiping at vendor outlet etc by using debit and credit card, A/C no., customer number, customer User ID, Password,

* **P. Sailaja, PhD Research Scholar,** Email: sailaja1@yahoo.in

** **Dr.V. Thamodaran,** Assistant Professor, Dept. of Business Administration, Annamalai University, Chidambaram

Authentication codes, OTP Pin, ATM Pin no. etc.

This enables the financial institutions, individuals or businesses, to access accounts, transact business and apply or obtain information on financial products and services which can be performed electronically i.e. via internet etc. Due to emergence of E-Banking it saved customers in avoiding long queue, transport, cost delays and thereby creating an evironment of trust between the bank and customer for more fast, reliable, efficient and personalized services. Banks through internet has emerged as a strategic resource for achieving higher efficiency.

1.2 Evolution of E-Banking

Earlier traditional banking industry deals with few schemes like savings, deposits, loans etc. and also for the bank it is a manual tedious process of maintaing and tracking the accounts and transaction of each and every customer. Even customers equally had the difficulties of coming to the banks, long queue system, sometimes no proper response from the banks, need to come repetitive times to the bank for any banking transaction or information, lack of benefits and infrastructure for customers, lack of different types of schemes and banking services.

Due to emergence of computer (1950), E-Commerce (1972) and worldwide web (1989) carved in development and innovation of E-Banking (started in 1970 and strategic imperative in 1990), ATM (1967-2000) (1965-SMS banking (1980) and Mobile banking (2010). Due to the emergence of E-banking changed the entire revolutionary thereby leading to increase in usage widely and more innovative development in E-commerce, E-payment and banking sector etc. In this modern banking the storage space is reduced, and 24/7*365 days banking from anywhere in the world and banking services/customer care support round the clock thus making modern banking or the emergence of E-banking system user friendly and cost effective system.

Online became popular in 1980s, connecting via television and phone to send transfer, provide instructions to the banks, pay bills etc. The implementation of WWW (World Wide Web) in 1989 led to development of online banking in 1990 which became popular leading to more innovation, added features and usage of online banking worldwide. Net banking is found in 1996 and incorporated in 2007.

The emergence of E-banking revolutionary changed the entire financial system and lead to more innovative development in E-payment, E-commerce and banking sector industry etc. In this modern banking, reduced storage space, 24/7*365 days banking from anywhere in the world and customer care support/ banking services which is present round the clock, thus making modern banking i.e. E-banking system user friendly and cost effective system.

1.3 Online Banking / Internet Banking / Net Banking

Online banking is doing banking transactions via bank website connected via internet for performing bank financial transactions. The bank in which the customer have accounts provides the net banking user ID and password and transaction password and in few banks even the authorization code, virtual keypad etc. to access net banking or to do online payments. Wherein the customers can transfer of amount, view their account balances, bill payment, mini statement and transaction history, credit card payment, financial products and services details or for applying, deposits, loans, other account details which customers holds like current account, NRI account, demat account etc. and other banking activities likes cheque book request, stop payment or requisition raised like address change etc.

Also the customers can do e-payment for the online shopping, bill payment, recharge, application fees payment, education fees etc.. By using debit/ credit card details or via net banking by providing the internet banking password and OTP (one time Password) Pin no., CVV no. Hence convenient for the customers to do all the transactions at one place i.e. home etc. without travelling and reducing the cost/travel/long queue/ physical stress and easy tracking of the activities and transactions performed.

1.4 Online/Internet/Net Banking Benefits:

The emergence of online/internet/ net banking the banking activity and e-payment can be done at home or from anywhere in the world without going to the bank making it easy and reducing the cost, transport and long queue etc.

In Net banking activities like fund transfer, account details, opening and viewing details of deposits, insurance, ECS, viewing/changing of registered mobile, email etc. and other banking activities can be performed by providing net banking credentials. Online/internet/ e-payment banking is helpful in doing online bill payment, online purchases, online payment activities etc. by giving debit/credit card details or via net banking thereby making it easy and reduced cost, time, travel and long queue etc. and can be performed at home or at any place instead of going to the shop or government departments for payments etc.

Online/internet/e-payment banking helpful in doing online bill payment, online purchases, online payment activities etc. by giving debit/credit card details or via net banking thereby making it easy and reduced cost, time, travel and long queue etc. and can be performed at home or at any place instead of going to the shop or government departments for payments etc.

1.5 Common incidents of Security breach and Crime while using online/ net banking:

Hackers attack either banks servers/ networks or the customer systems via virus, hoax website or else by sending hoax emails, hoax links via website, links, social networking sites etc., and thereby stealing the sensitive information, bank credentials, blocking the network/servers/ hard disk and erasing the data sometimes.

The hackers misuse the sensitive information like customer account holders list details or banks credentials and sells this information to either a 3rd party/competitor or else use the bank credentials and if required hack even the mobile phone/email for stealing OTP Pin details and use them for online shopping or transfer of amount.

Due to this hacking the customers/banks are unaware that they are attacked and by the time it is realized either the sensitive data/information is lost or money or sensitive data is erased/stolen etc. or a combination of these creating a huge loss for the banks/customers.

1.6 List of few precautionary steps provided by banks, RBI, Government for online/internet/net banking:

- Avoid accessing your Net Banking account from a cyber cafe or a shared computer in case if used change passwords from your personal computer
- Every time once you complete an online banking session, log off from bank website and don't just close your browser
- Always type in the correct URL of your respective bank into your browser window while operating net banking and never click a link that offers to take you to the website
- Ensure that the passwords are not stored automatically but type the password when prompted
- Ensure that the password is complex, difficult for others to guess, different password i.e. for login, transaction, other bank accounts etc. and change your passwords at least once in a month
- Never share your Internet Banking passwords with anyone and remember your password and never write it down or save it in your pc or mail or SMS etc.
- Always check the last log-in to your Internet Banking account

II. Review of Literature

Sathye Milind (1999) examined the factors affecting the adoption of Internet banking by Australian consumers. The sample for this survey was drawn from individual residents and business firms in Australia. Study found that security concerns and lack of awareness about Internet banking and its benefits stand out as being the obstacles to the adoption of Internet banking in Australia.

Rawani A. M. and M P Gupta (2002) tried to explore empirically the difference in the role of Information Systems (IS) in the banking industry. The study indicates that IS plays a supportive role in public sector banks and a strategic role in private and foreign sector banks. The study also indicates that the future impact of IS does not vary significantly with the banking groups.

Sonja Grabner-Krauter and Rita Faullant (2008) confirm the influence of internet trust on risk perception and consumer attitudes towards internet banking. Propensity to trust is a determinant not only for interpersonal relationships but also for trust in technological systems.

Ganesan R and Vivekanandan K (2009) analyzed that Internet banking has made it easy to carry out the personal or business financial transaction without going to bank and at any suitable time. This facility enables to transfer money to other accounts and checking current balance alongside the status of any financial transaction made in the account.

Sunayna Khurana (2009) aimed to identify customer preferences towards online banking and to find out various service quality dimensions that affect customer satisfaction. The five factors that influence the satisfaction level of customers are responsiveness, reliability, efficiency, privacy of information and easiness to use. The researcher believes the present study can make its contribution in two ways. First, it describes the customer preferences towards internet banking. Secondly, it explains the various service quality dimensions that effect customer's satisfaction and importance of each factor. Responsiveness and reliability on the banks website are most important factors that affect customer's satisfaction. Various banks must take important steps to make their website more reliable and more responsive to give more value and satisfaction to customers.

Malhotra and Singh (2010) presented the status of Internet banking in India and the extent of Internet banking services offered by Internet banks. It also examined the factors affecting the extent of Internet banking services. Study found that the private and foreign Internet banks had performed well in offering a wider range and more advanced services of Internet banking in comparison with public sector banks.

Rao G.R and Prathima K, (2011) provide a theoretical analysis of Internet banking in India and found that as compared to banks abroad, Indian banks offering online services still have a long way to go. From online banking to reach a critical mass, there must be sufficient number of users and the sufficient infrastructure in place information technology has introduced new business paradigms and is increasingly playing a significant role in improving the services in the banking industry.

Subsorn and Limwiriyakul (2012) investigated that there was a distinct lack of internet banking security information provided on all the selected Thai banks' websites as compared to the selected Australian banks which provided better internet banking security information.

Harshad Patel and Vijay Pithadia, (2013) found that "Advancement achieved in the Information Technology and communication Technology in the last two decades has resulted in the successful implementation of Electronic Banking in India". Today, the banks able to offer the choice of customer services to provide banking business across the bank counter, over the telephone or through computer or internet. "The key to survival, therefore, is maintenance of customer loyalty by providing them with value added services customized to their needs. The focus of study is to certain the role of value added services to satisfy and retain customer loyal. Some of these value-added services Automated Teller Machines cards (ATM), Credit card, Debit card, Internet banking, Tele banking, Mobile banking, Home Banking and so on.

R**ajpreet Kaur Jassal and Ravinder kumar Sehgal (2013)** Online banking had become increasingly important to the profitability of financial institutions and adding convenience for the customers. As the number of customers started using online banking increases, online banking systems are becoming more desirable targets for criminals to attack. To maintain the customers' trust and confidence in the security of their online bank accounts and financial institutions identifies how attackers compromise accounts and develop methods to protect them. Security breaches are not only because of banks faults and banks inadequate polices but customers are equally responsible for it, because customer's awareness regarding security is equally important.

Sven Kiljan (2017) examined 80 banks across the globe over 2 years' period. The researcher focused on home and mobile banking application which is using the standard web technologies. Based on study the mobile banking is larger attack target like home banking in the past. The use of authentication methods and their ways to secure is being examined by the researcher. Communication security is mostly uniform and good enough for daily use. The researcher dedicated mechanisms to compare and evaluate online banking user authentication and transaction authorization methods. An existing mechanism that quantifies the qualities of user authentication methods on three levels was expanded with aspects related to online banking. This mechanism was used by seven ratters to evaluate four implemented and eight proposed sets of user authentication and transaction authorization methods. Another evaluation mechanism the researcher designed that focused on user testing is a modular web framework that allows the testing of new ideas for authentication and authorization methods, without developing from scratch and without using a physical test center. A proof of concept was developed and used by test candidates. Usage data was retrieved from which conclusions could be made, which warrants the usefulness of such a framework.

III. Research Methodology and Analysis

3.1 Objective:

To analyze the factors that influences the security system of Online/Net banking a part of e-banking services and to evaluate customers' satisfaction towards various factors of security system in e-banking services

3.2. Path Analysis

The above path analysis is run on a sample of 422 respondents to know the correlation and regression of independent variables with respect to satisfaction level regarding security on using Online/Net Banking. Likewise, the independent variables are accessibility, security awareness, reliability, cost effectiveness, responsiveness, service quality and technical improvement and the second dependent variables or mediator variables are service factors and Technical factors on security of Online/Net Banking.

3.3. Model Fit

Table I. Model Fit.

Chi Square	P	DF	RMSEA	GFI	AGFI	CFI	NFI
1.372	0.504	0.244	0.000	0.999	0.982	1.000	1.000

From the above table it is found that the calculated chi-square value is 1.372, p value is 0.504 which is greater than 0.05, which indicates perfectly fit. Here GFI (Goodness of Fit Index) value and the AGFI (Adjusted Goodness of Fit Index) value is greater than 0.90 which represent it is a good fit. The calculated CFI (Comparative Fit Index) value and NFI (Normed Fit Index) values are greater than 0.90 which means that it is perfectly fit. It is found that RMSEA (Root Mean Square Error of Approximation) value is 0.000 and which is less than 0.08, which indicates it is perfectly fit.

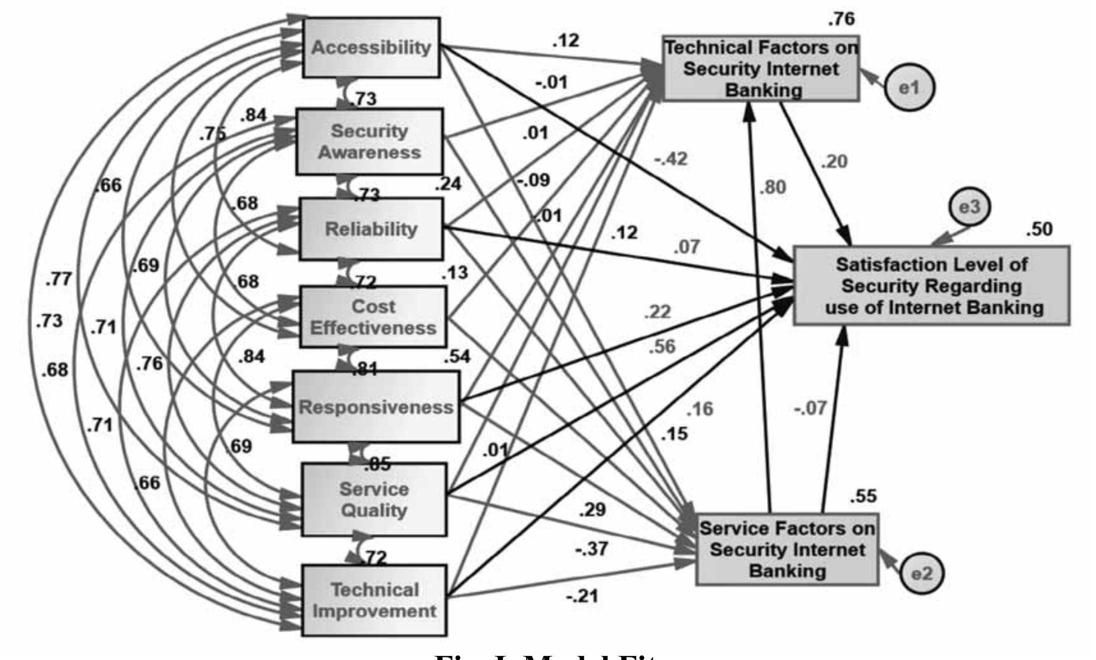

Fig. I. Model Fit.

Table II. Regression Weights

DV	Path	IV	Estimate	S.E	C.R.	B	p
Service factors on security internet banking	<---	Accessibility	.115	.053	2.194	.151	0.028
Service factors on security internet banking	<---	Security Awareness	.171	.040	4.337	.235	0.000
Service factors on security internet banking	<---	Reliability	.111	.057	1.949	.129	0.051
Service factors on security internet banking	<---	Cost Effectiveness	.437	.054	8.097	.542	0.000
Service factors on security internet banking	<---	Responsiveness	.206	.049	4.216	.287	0.000
Service factors on security internet banking	<---	Service quality	-.221	.045	-4.857	-.374	0.000
Service factors on security internet banking	<---	Technical Improvement	-.108	.028	-3.884	-.208	0.000
Technical factors on security internet banking	<---	Accessibility	.095	.041	2.300	.117	0.021
Technical factors on security internet banking	<---	Security Awareness	-.004	.031	-.123	-.005	0.902
Technical factors on security internet banking	<---	Reliability	.009	.044	.210	.010	0.834
Technical factors on security internet banking	<---	Cost Effectiveness	-.081	.045	-1.793	-.094	0.073
Technical factors on security internet banking	<---	Responsiveness	-.005	.039	-.130	-.007	0.897
Technical factors on security internet banking	<---	Service quality	.007	.036	.183	.011	0.855
Technical factors on security internet banking	<---	Technical Improvement	.064	.022	2.902	.116	0.004
Technical factors on security internet banking	<---	Service factors on security internet banking	.848	.038	22.358	.798	0.000
satisfaction level of security regarding use of internet banking	<---	Technical Improvement	.196	.071	2.768	.158	0.006
satisfaction level of security regarding use of internet banking	<---	Service quality	.790	.109	7.224	.561	0.000

satisfaction level of security regarding use of internet banking	<---	Responsiveness	.368	.122	3.025	.215	0.002
satisfaction level of security regarding use of internet banking	<---	Reliability	.138	.141	.972	.067	0.331
satisfaction level of security regarding use of internet banking	<---	Technical factors on security internet banking	.441	.157	2.807	.197	0.005
satisfaction level of security regarding use of internet banking	<---	Service factors on security internet banking	-.171	.171	-1.000	-.072	0.317
satisfaction level of security regarding use of internet banking	<---	Accessibility	-.772	.131	-5.889	-.425	0.000

Considering the significant individual path coefficients, it is seen that the influence of independent variables on service factors on security internet banking, accessibility shows (C.R. – 2.194, beta – 0.151, p – 0.028), security awareness shows (C.R. – 4.337, beta – 0.235, p – 0.000), cost effectiveness shows (C.R. – 8.097, beta – 0.542, p – 0.000), responsiveness shows (C.R. – 4.216, beta – 0.287, p – 0.000), service quality shows (C.R. – -4.857, beta – -0.374, p – 0.000), technical improvement shows (C.R. – -3.884, beta – -0.208, p – 0.000). Hence the p values are less than 0.05 and the hypothesis are rejected and significant influence over service factors on security internet banking at 1% level. Other remaining independent variable is reliability not influencing over dependent variable of service factors on security internet banking.

Considering the significant individual path coefficients, it is seen that the influence of independent variables on technical factors on security internet banking, accessibility shows (C.R. – 2.300, beta – 0.117, p – 0.021), technical improvement shows (C.R. – -3.884, beta – 0.208, p – 0.021) and service factors on security internet banking shows (C.R. – 22.358, beta – 0.798, p – 0.000). Hence the p values are less than 0.05 and the hypothesis are rejected and significant influence over technical factors on security internet banking at 1% level. Other remaining independent variables are security awareness, reliability, cost effectiveness, responsiveness and service quality not influencing over dependent variable of technical factors on security internet banking.

Considering the significant individual path coefficients, it is seen that the influence of independent variables on satisfaction level of security regarding use of internet banking, technical improvement shows (C.R. – 2.768, beta – 0.158, p – 0.006), service quality shows (C.R. – 7.224, beta – 0.561, p – 0.000), responsiveness shows (C.R. – 3.025, beta – 0.215, p – 0.002,) accessibility shows (C.R. – -5.889, beta – -0.425, p – 0.000) and technical factors on security internet banking shows (C.R. – 2.807, beta – -0.197, p – 0.005). Hence the p values are less than 0.05 and the hypothesis are rejected and significant influence over on satisfaction level of security regarding use of internet banking at 1% level.

Other remaining independent variables are reliability and service factors on security internet banking not influencing over dependent variable of satisfaction level of security regarding use of internet banking.

Relationship between Service quality and Technical Improvement (C.R. = 11.991, r = 0.720 and p = 0.000), relationship between Service quality and Responsiveness (C.R. = 13.260, r = 0.847 and p = 0.000), relationship between Responsiveness and Cost Effectiveness (C.R. = 12.915, r = 0.810 and p = 0.000), relationship between Cost Effectiveness and Reliability (C.R. = 12.011, r = 0.722, p = 0.000) and relationship between Reliability and Security Awareness (C.R. = 12.142, r = 0.734 and p = 0.000), relationship between Security Awareness and Accessibility (C.R. = 12.065, r = 0.727 and p = 0.000), relationship between Technical Improvement and Accessibility (C.R. = 12.064, r = 0.727, p = 0.000), relationship between Technical Improvement and Security Awareness (C.R. = 11.581, r = 0.684 and p = 0.000), relationship between Technical Improvement and Reliability (C.R. = 11.919, r = 0.714 and p = 0.000), relationship between Technical Improvement and Cost Effectiveness (C.R. = 11.360, r = 0.665 and p = 0.000), relationship between Technical Improvement and Responsiveness (C.R. = 11.656, r = 0.690 and p = 0.000), relationship between Service quality and Accessibility (C.R. = 12.492, r =0.767 and p = 0.000), relationship between Service quality and Security Awareness (C.R. = 11.918, r = 0.714 and p = 0.000), relationship between Service quality and Reliability (C.R. = 12.416, r = 0.760 and p = 0.000), relationship between Service quality and Cost Effectiveness (C.R. = 13.180, r = 0.838 and p = 0.000), relationship between Responsiveness and Accessibility (C.R. = 11.339, r = 0.663 and p = 0.000), relationship between Responsiveness and Security Awareness (C.R. = 11.656, r = 0.690 and p = 0.000), relationship between Responsiveness and Reliability (C.R. = 11.569, r = 0.683 and p = 0.000), relationship between Cost Effectiveness and Accessibility (C.R. =12.283, r = 0.747 and p = 0.000), relationship between Cost Effectiveness and Security Awareness (C.R. = 11.488, r = 0.676 and p = 0.000) and relationship between Reliability and Accessibility (C.R. = 13.188, r = 0.839 and p = 0.000). Hence the p values are less than 0.05 and the hypotheses are rejected. It is concluded that positive relationship among the variables.

3.4 Findings

Service factors that influencing on security of e-banking is significant with reliability and cost effectiveness of e-banking service. Technical factors of e-banking security services are significant with easy accessibility of security systems provided by the bankers, cost effectiveness of the services and system server responsiveness. Service quality of the e-banking security system is highly significant with technical factors and technical improvement activities done by the service provider banks. Online/ net banking services are also highly perceived by its customers towards technically strong on security when compared to other banks online or net banking services.

Satisfaction of customers towards e-banking security system is significant with service quality, technical improvement activities and responsiveness of system server and easy accessibility of system.

IV. Suggestions

- E-banking security system should be reliable with customers' standards and their profile. It should alter based on their individual needs and expertise.
- E-banking security system should be easy accessible by ordinary person who have the customers of their bank, highly complicated system administration may lose their customers.
- E-banking security system should be affordable cost with respect to their security system. High cost may charge by the service provider bank; customers may shift their banking activities to other low cost providers.
- E-banking security system should be high speed responses, due to security issues, it may take more time to response, and customer may get irritation.

Recommended solution for secured Electronic payment transaction via Online/Net Banking

- Bio Metric to be incorporated to Online/Net banking like face/Palm/ finger/skin which reads via laser sensors devices and touch screen.
- To have unique hologram stickers or identification on banking/e-payment websites.
- In case of fund transfer based on the level of amount transactions the security authentication needs to be increased i.e. Rs. 50,000 above answering security question and auth code, 1 Lakh and above biometric / voice / face recognition via web cam etc.
- For internet, online or e-payment -need to generate and use a duplicate one time or one day debit/credit card details called as E-debit card or E-credit card by logging into either net banking or another secured bank website. i.e. generates duplicate E-debit/credit card number, CVV no., expiry/issue date, password, OTP Pin etc. for e- payment
- Also, to use encryption format wherein if the bank credentials or auth code is given it is encrypted in a code format and sent to the bank

servers so that it is difficult to be tracked/traced when the credentials are entered

- An emergency contact no. like 100 e.g. 500, 1000 etc to be provided by the banks/RBI, this needs to be notified to customers and displayed in ATM centres.
- To stick precautionary steps to be taken by customers along with emergency contact no. especially on the ATM Machine, vendor outlet and online webpage and Advertisement
- To develop and bring more secured Anti-virus software's which can be installed by the banks and in the customer's system and biometric password protection for the front and back end programs. To check if the programs are not cut/paste from the websites but written on own
- To send a list of licensed anti-virus software and low cost bio-metric devices to be installed by the customers and if possible to sell them in the bank either at a very low or free of cost which can be purchased by everyone.
- Copy of Back ground check report of bank officials, security guard and technicians etc to be sent periodically to police department

V. Conclusion

Online/net banking is one of the user-friendly banking technologies for bank and customers. Many banking transactions and banking services are being added and incorporated in the Online and net banking. But on the contrary there is a rise of cyber-crimes/frauds/threats and if banks and customer adhere and follow strictly the precautionary steps and security measures then surely even more major development and innovation will take place for advanced user friendly digitized online/net banking.

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MEDIATING ROLE OF WORK ENGAGEMENT BETWEEN BURNOUT AND TURNOVER INTENTION AMONG EDUCATORS IN HIGHER EDUCATIONAL INSTITUTIONS

Samini Varghese *
Jyothi Kumar **

Abstract:

In the present competitive environment, employee retention is of genuine concern in every organization. Human Resource incontestably is the most important resource of any organization and also is of significance in Educational Institutions since they are a service industry. Furthermore, an increasing number of institutions are understanding that retaining human intellectual capital is fast becoming the key source of maintain competitive edge. Higher Educational institutions are becoming vulnerable to losing their highly qualified knowledge and talented staff and therefore the importance of retaining educators are matters that have resulted in the increased interest in variables, such as work engagement, job satisfaction, burnout etc, that may influence employee retention.

In this study educators in higher education institution in Bangalore constitute the population. This study focus of the mediating relation of work engagement between burnout and turnover intention. For the analysis of the study an empirical study using a survey method is used to collect primary data. Data is gathered using a structured and standard questionnaire. The generated data are subjected to standard statistical procedures, such as descriptive statistics, internal reliability and correlation etc., The Findings of the study imply that there is a significant relationship between burnout, work engagement and turnover intention. It also shows the mediating role of work engagement between burnout and turnover intention. The study also implies that while formulating policies and procedures it is important that the management need to recognize the importance of work engagement as a mediator to turnover intention. It also suggests that by improving work engagement the effect of burnout can be reduced and will thereby decrease turnover intention among the employee.

Key Words: *Burnout, Work Engagement, Turnover intention, Educators, Higher Educational Institutions.*

Introduction

Educational institutions plays an important and crucial part in creation and formation of knowledge for future talent. According to (Coetzee and Rothmann, 2004), academics are essential to societal life, as they are accountable for imparting knowledge to the leaders of the society as well as for conducting advanced scientific research and developing knowledge. But in today's fast moving and competitive world educational institutions are facing new challenges such as technological changes, diversity in workforce, demographical changes. Higher educational institutions are in jeopardy to losing their skilled and talented employees to well paid job offers from global higher educational institutions (Ngobeni & Bezuidenhout, 2011). These challenges are initiating the managements of educational institutions to proactively formulate policies and strategies in an effort to retain talented employees and to remain competitive. In a era where intellectual capital in any organization is becoming the most important asset to maintain competitive advantage, retention strategies are critical and need to be taken seriously. Large number of educational institutions today are realizing the need to release the untapped potential of their intellectual capital in order to remain successful in an increasingly competitive global economy (Burke & Cooper, 2008; Burke & El-Kot, 2010; Lawler, 2008). In this respect, understanding the factors that keep employees in their current jobs is crucial in employing and retaining talented staff (Lawler & Finegold, 2000; Michaels, HandfieldJones & Axelrod, 2001).

In the time of globalization, turnover is a steady issue in organizations and it is present in every organization irrespective of the type and size of the organization. Employee turnover is an every organization face particularly in the field of human resource management. When an employee quits an organization, the ability of the remaining employees to finish their duties may be disturbed. Turnover is an excruciating issue in any organization, in the era of intense competition the organizations attempt to limit their turnover ratio and save their cost, turnover cost includes the cost of recruitment, selection, training and development of the employees to empower them to perform well and to gain competitive advantage.

Retaining talented employees is becoming essential in every organization as it increases the human capital and thereby becomes the key source of competitive advantage (Halawi *et al.*, 2005; Pfeffer, 2005). Organizations today are aware of the drawback of having high employee turnover and are focusing on retaining talented employees, keeping them engaged and focused to the job (Frank, Finnegan & Taylor, 2004). It is therefore paramount importance to take necessary steps in retaining skilled employees as a result to reduce turnover (Hillmer, Hillmer & McRoberts, 2004).

* **Samini Varghese,** Research Scholar, Christ University, Bangalore;
Email: samini.varghese@res.christuniversity.in

** **Jyothi Kumar,** Associate Professor, Department of management studies, Christ University, Bangalore, Email: jyothi.s@christuniversity.in

Literature Review

Work Engagement and Turnover intention

Work Engagement is referred to as the level of devotion of an employee where he wishes to do his job effectively for the benefit of himself and that of his organization. Work engagement has been defined by many researchers in many ways but the most popular definitions is described by Schaufeli and Salanova (2002). Work engagement is defined as "as "positive, fulfilling, work-related state of mind that is described by vigor, dedication, and absorption" (Schaufeli and Salanova, 2001). It is interesting to note that work engagement is described as a construct opposite to burnout. This has been tested and confirmed in various organizational settings (Schaufeli, Martinez, et al., 2002, Bakker, Demerouti, and Schaufeli, 2005, Hallberg, et al., 2007).

Dedicated employees are passionate to work hard with a positive state of mind, therefore their valuable talent is cause for achievement in the workplace (Bakker & Demerouti, 2008). The significance of work engagement(participation) has shown that antecedents and outcomes such as job satisfaction, performance and turnover intention can be mediated through the role of work engagement which is effected by work related feelings and behavioral outcomes.

According to Agarwal, Gupta (2015) employees who are engaged in their jobs experience a positive emotion which include happiness, interest and enthusiasm in their work (Schaufeli, W.B., Salanova, M., Gonzalez-Roma, V., & Bakker, A.B. 2007), they are prone to stay back in the organization. Work engagement is considered as the mediator in Job Characteristics and intention to quit, thereby addressing the literature gap of limited knowledge of how Job Characteristics is related with turnover intention. Work engagement as a mediator also shows that employees with high job resources have positive emotions and in turn reduces intention to quit. This finding adheres with the inferences of the broaden-and-build theory (Fredrickson, 2001) that states that positive emotions broaden routine manner of thinking and acting and result in performing better.

Mangi, Jalbani (2013), the study investigated if work engagement play a mediating role between emotional exhaustion, cynicism and turnover intentions among the faculty member of higher educational institutions. In the study regression is used to prove that all the variables are positive and significantly predict the turnover intention. The results of the study shows that work engagement partially mediate between emotional exhaustion, cynicism and turnover intention

Burnout and Turnover intention

Burnout refers with emotional and physical exhaustion or a person who is worn out as a result of an employees work.

(Harrington et al., 2001; Huang, Chuang, & Lin, 2003) indicates that among the various antecedents of turnover intention burnout has been found to be one of the main antecedent by many studies

Ahmad, Shahid, Haider (2012), the study with the help of Pearson Correlation and Regression analysis investigates the relationship between job stress, job satisfaction and turnover intention. The results showed that job satisfaction and job stress is significantly and negatively correlated with turnover intention. It has been evident that, employees who experience more job stress have a higher intention to quit.

Tziner, Rabenu, Radomski, and Belkin (2014), the study examined the relationship between perceived work stress, burnout, satisfaction at work, and turnover intentions. The results revealed that burnout partially mediated work stress and the relationship between burnout and turnover intention is partially mediated by work satisfaction.

Need for the Study

Education is one of the sectors which significantly affect the economic, political and social development of the nation. It is a key to enhance country's competitiveness in the global economy. Therefore, it is necessary for us to build the education system such that it is easily accessible by the entire society and provides quality education with international standards. Like business and industry, the educational field too is discovering the need for talent so as to meet the new quality standards demanded by educational boards and the society. The job opportunities in Indian education sector are more than the available employees i.e. demand is more than the supply. In Higher educational institutions, which are considered as the hub of knowledge, the retention of intellectual capital has become a crucial issue. The Business Standard, New Delhi dated August 13, 2014 states that by the year 2022 there will be a need for three million educators in higher educational institutions. It is additionally noted that the migration of faculty has left a huge gap in several educational institutions. The Union human resource development (HRD) ministry has updated the Parliament that the 16 Indian Institutes of Technology (IITs) have a faculty deficiency of 36.5 percent. The 30 National Institutes of Technology face a challenge of an educators' shortage in the range of 41 per cent. A lot of studies and researches has been conducted on the issues caused by high turnover rate in the corporate world but very little has been done on scrutinize the reasons for faculty turnover, a higher the rate of faculty turnover in an institution higher is the recruiting, selection and training costs. Retaining talents is not only the choice of employers but is also a very essential need of the hour as educational institutes are already at risk running with talent crisis

Objective of the Study

Work engagement is one of the variables in turnover intention which researchers offer as the possibility to enhance the potential to explain why individuals stay in their current jobs. The main objective of this study is to shed knowledge on the relationship between burnout out and turnover intention which can be mediated by work engagement is essential in light of the fact that such information my help higher educational institutions in enforcing effective retention practices. Empirical evidence with respect to mediating role of work engagement in relation to turnover intention has been seen in international literature. Most of such researches has been conducted in countries like USA, UK, Malaysia, Saudi Arabia and Africa. Findings in these countries can be applied to Indian setting has not been researched. Therefore the objective of this study is to examine if work engagement can act as a mediator to turnover intention among educators in higher educational institutions.

Hypothesis

Proposed Model

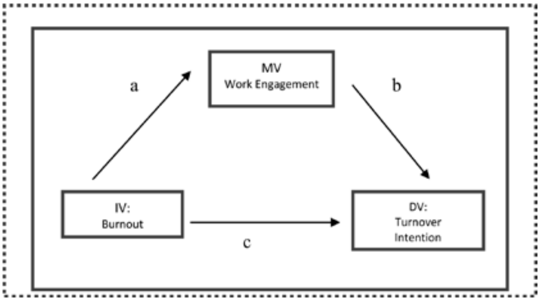

Figure 1: IV-Independent variable, Dv-Dependent variable MV,

Hypothesis

- To determine the level of work engagement and turnover intention among educators in higher educational institutions
- To investigate the relationship between burnout , work engagement and turnover intention
- Work Engagement mediates the relationship between burnout and turnover intention among educators in higher educational institutions.

Research Methodology:

Research design

A non-probability purposive and random method of sampling so as to give all individuals within the population equal chance to be chosen. Professional educators of higher Educational institutions in Bangalore constitute the population for the study. The present study is undertaken to determine the relationship between work engagement, burnout and turnover intention among educators in higher educational institutions using work engagement as a mediator. A total of 200 questionnaires were distributed among potential respondents chosen from educators from Degree Colleges, Engineering Colleges and Business Schools among the various higher educational institutions. In all, 192 questionnaires were returned, 14 of them were incomplete and therefore rejected, leaving total of 178 usable questionnaires full filled giving a response rate of 89% percentage. All the respondents were of the age between 24 to 60 years. The current study uses Likert scales to measure the responses, since this scale is widely used in marketing and social science research (Garland, 1991).

Measuring instruments

In this study, the survey covers theories relating to the constructs work engagement, burnout and turnover intention. Work engagement is measured by using a 17 item scale of Work and Well-Being Survey (UWES) by Schaufeli and Bakker (2003). Burnout: Maslach Burnout Inventory – Educators Survey (MBI-ES) (1998)- 22 item scale. Turnover intention is measured by the tool developed developed a 14 item scale by Roodt 2004.

Statistical Analysis in the study

For the analysis of the study an empirical study using survey method to collect both primary and secondary data would be used. Data would be gathered using structured and standard questionnaire as a tool for the study and to confirm themes on which the theoretical framework is based. The generated data would be subjected to standard statistical procedures. The statistical analysis has been conducted using SPSS software, version 22.0 (SPSS, 2013). Descriptive statistics and inferential statistics has been used to assess the data. The Cronbach Alpha coefficient has been used to assess the internal consistency reliability of each of the measuring instrument.

Analysis and Interpretation:

The demographic profile of the respondents with regard to the Age, Gender, Educational Qualification, Marital Status, Income, experience etc., of the respondents are shown in Table-I

TABLE - I
DEMOGRAPHIC PROFILE OF RESPONDENTS

		%
Age (in Years)	20 – 30	47.8
	31 – 40	41.0
	41 – 50	9.9
	51 – 60	1.3
Gender	Male	44.2
	Female	55.8
Educational Qualification	Graduate	4.5
	Post Graduate	89.7
	Doctorates	5.8
Marital Status	Single	31.1
	Married	68.9
Income (Monthly)	<= 10000	5.4
	10001 - 25000	36.5
	25001 – 50000	46.8
	Others	11.3
Experience	< 5	47.8
	6 - 10	23.4
	11 - 15	16.7
	16 - 20	9.9
	> 20	2.2
Presently Teaching	Professional Course	34.3
	B School	32.4
	Degree College	33.3
Teaching	Under Graduates	77.9
	Post Graduates	22.1

As shown, the majority of the respondents were spread across two age group ie., between the age group of 20 – 30 were 47.8% and between the age group 31- 40 were 41 %, Most of the respondent 55.8% were female. Most of the respondents 89.7% were post graduates and 68.9% of them were married. Among all the respondents a majority of 47.8% has an experience less than 5 years, most of them 46.8% fall under the income group between 25001 – 50000 and 77.9% taught under graduates.

Results and discussion:

1. *Level of work engagement and turnover intention among educators in higher educational institution.*

To answer H1, mean scores, standard deviations (SD), skewness, kurtosis and internal consistency reliability coefficients are compared for work engagement, burnout and turnover intention. Table-I that the internal reliability of the factors as measured by Cronbach's Alpha , are all above 0.70, which confirms internal consistency of the items in a variable. As shown in Table II, the respondents were moderately engaged with their jobs showed mean score of Vigor at (mean = 3.54, SD = 0.97), Dedication showed a mean score of (mean = 3.74, SD = 0.93),and Absorption showed a mean score of of (mean = 3.42, SD = 0.91), burnout showed a mean score of (mean = 3.72, SD = 0.79) and turnover intention showed a mean score of (mean = 3.29, SD = 0.99). The skewness and Kurtosis values value for all the constructs range between 0.67 and -0.51, there by falling within the -1 and +1 normality range recommended for these coefficients (Howell, 2008)

Table-II provides descriptive statistics for each variable. The present study used a 7-point Likert scale from 1-5 where 1 = strongly disagree, 2=disagree, 3=neither disagree nor agree, 4 = agree, and 5 = strongly agree to measure all the theoretical constructs.

TABLE-II

Variable	Mean	SD	Skewness	Kurtosis	Cronbach's Alpha
Work Engagement					
Vigor	3.54	0.97	-0.25	-0.39	0.71
Dedication	3.74	0.93	0.20	-0.82	0.82
Absorption	3.42	0.91	0.22	-0.67	0.81
Burnout	3.72	0.70	0.16	- 0.34	0.79
Turnover Intention	3.29	0.99	-0.51	-0.54	0.88

Higher score indicates higher work engagement, burnout and turnover intention

2. *Relationship between Work Engagement burnout and turnover intention among educators in higher educational institution.*

The strength of the relationship between the predictor and the outcome that is can controlled and decreased with the help of a mediator. Figure 1 above shows the model where the mediation can be seen in relation with the independent and dependent variables. Path "a" shows the relationship between the independent variable that is burnout and the mediator that is work engagement. Path "b" shows the relationship between the mediator that is work engagement and dependent variable and path "c" shows the relationship between the independent variable that is burnout and the dependent variable that is turnover intention.

Pearson correlation is computed to address H2 and H3. Table-III shows the results from the analyses conducted.

TABLE-III. -Correlation among variables

	Turnover Intention
Work Engagement	
Vigor	-0.12**
Dedication	-0.35**
Absorption	-0.19*
Burnout	0.51**

*p<.01 **p<.001

Saks (2006) recorded that work engagement had a positive influence with antecedents such as job satisfaction and a negative influence with turnover intention. Schaufeli and Bakker (2004) also emphasizes the mediating effect of work engagement (participation) on turnover intention.

In relation to RO2 and RO3, results show that all the variables were significantly related. Burnout out is found to be significantly and higher the burnout higher is the turnover intention.The model shown above shows that there is a significant and positive relationship between the independent variable that is burnout and the dependent variable that is turnover intention also there is a significant and negative relationship between the mediating variable that is work engagement and the dependent variable that is turnover intention. As seen there is a significant and negative relationship between work engagement and turnover intention. Higher work engagement leads to lower turnover intention.

Conclusion

The study explored the relationship between work engagement, burnout and turnover intention. The findings indicate that there is a significant relationship between the respondents work engagement, burnout and turnover intention. It is seen that respondents who are highly engaged in their job within the organization appears to have less intention to quit the institution, which is supported by of previous studies of

Halbesleben and Wheeler (2008) and Mitchell et al., (2001).

The results indicates that work engagement can be a stronger negative predictor of the respondents turnover intention. The findings of this study is also strongly supported by previous studies of Mangi and Jalbani (2013) who suggest that work engagement is a mediator to turnover intention. It is also agreed upon by Ahmad, Shahid, Haider (2012), employees who experience more burnout has higher intention to quit. Overall, from the findings it can be conclude that high level of work engagement leads to decrease in turnover intention. The findings of this study have contributed valuable knowledge on work engagement as an ideal mediator on turnover intention among educators in higher educational institutions in Bangalore, India.

Limitations and recommendations for future research

Work engagement as a mediator on turnover intention is useful in the study of turnover intention. It is practical to study factors that decrease turnover intention and allow organizations to select and manage people with higher dedication and vigor in their job within the organization.

This study used structured questionnaire to gather data at one point in time, cross sectional research design has been for drawing conclusions. The research is limited to the fact that no provisions has been made to record the change in how the employee would behaviour and perceptive things over a period of time. Therefore it is recommended that future research could be done using longitudinal design to examine the influence of work engagement as a mediator between burnout and turnover intention. This study used non- probability purposed sampling method to record the responses, thus generalizing the findings in the context of educators in higher educational institutions concerned. Therefore the significant association found between the variables requires future research with larger sample among educators in higher educational institutions.

Never the less having seen the above said limitations, Although theoretical and empirical implications are promising and has been researched internationally, the concept of turnover intention among educators in India is still at it introductory stages. .The findings of this study will testify to be a milestone for the researchers, management of educational institutions and employees to rightly understand the concepts of how to engage employees at the work place so as to reduce turnover intention among educators in higher educational institutions in India. The findings from this research would also increase the body of knowledge of why people stay in the institutions and provides a platform for future studies with the help of larger samples from within this domain.

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Role of Capital Markets in the growth and Development of Indian Economy

Mr. Sandeep Kumar S. *
Mr. Manjunath S M. **

Abstract

India is a growing economy in the world with stable growth rate in the past two decade. It is ranked second in the growth rate giving tough competition to closest counterpart china. Capital market acts as an integral part of financial system in any country and it assumes the major role in the development of such economy and the businesses in it. Capital market in Indian financial system is broadly divided into two parts namely primary market and secondary market. Both these markets contributes to the growth of the economy in its own and unique ways.

The main object of this study is to find out the impact of capital markets on the growth and development of Indian economy and this article is focused on analyzing the statistical impact of independent variables such as market capitalization, total turnover of the market and exchange rate on depended variable called as nominal GDP growth rate of Indian economy for last 20 years starting from 1998. Data required for the study has been extracted from secondary sources and examined using statistical tools. Methodology of this study mainly includes the regression model, Karl Pearson's coefficient of correlation model along with other statistical tools.

From the study, we found that the capital markets variables shares moderate level correlation with the Indian economy indicator and these markets plays very important role in developing economy. These markets are contributing to the development of the economy not only in monitory terms but also in non-monetary aspects.

Key words: *Economic development, capital market, GDP, market capitalization, turmover.*

Introduction:

Capital market is an effective network for the companies and financial institutions to interact with public for mobilizing funds and allocating it for the effective use to generate wealth to economy. This market offers space for the companies, government and other financial institutions to sell their stocks and bonds to raise funds they need

Mr. Sandeep Kumar S., Team Leader, Ocwen Financial Solutions Pvt Ltd.
Email: Sandeepmadival@outlook.com

Mr. Manjunath S. M., Assistant Professor, R V Institute of Management, Bangalore

in a very specialized and organized environment. This feature of the market makes it an essential agent of economic growth. Capital market contributes to the growth of the economy in many ways, directly or indirectly through specific services that it performs. Few notable tasks or services includes mobilization of savings and converting it as investments, diversifying the risk, liquidity, enhanced incentives for the corporate control and improved assimilation and dissemination of information.

The importance of the capital market as an effective and efficient channel of economic growth and financial intermediation has been well recognized and appreciated by researchers, academicians and policy makers. It is referred as primary determinant of economic growth in developing countries. Hence it is very important for us to know the role that capital market plays in Indian economy and its business.

Knowingly, Indian economy is doing well from past two and half decades and considered to be a most happening economy in the world. It is difficult for us to identify all the factors contributing for successful run of this economy and quantify the role played by each of those factor to the success of this economy. Hence, in the study we have considered one of the top most contributor to the growth of Indian economy and trying to quantify the relations that these two factors share with each other with a motive of finding the impact that capital market has on Indian economy.

Introduction to Indian Economy:

Today, India is emerged as a fastest growing economy in the world with high growth rate recorded as per the surveys conducted by major institutions in the world. It beats its close counterpart China to become number one in growth numbers in the year 2015-16 and showed the confidence in continuing the same in the near future. India's growth rate is considered to be stabilized in long term and expected to grow at a rate of ~7% year on year till FY2020. Even though country saw sudden dip in the numbers in past few quarters, initiatives taken by the government and economic outlook seems to be favoring the nation to reclaim its number to continue its successful run as a fastest growing economy.

India which is considered to be a mixed economy with a balanced approach towards spending and savings has saw the major improvements in the area of poverty level of the people, keeping control on inflation, generating employment and repayment of debt. Real GDP rate of the country dropped to 7.1% in the year 2016-17 from 8% in the financial year 2015-16 and to 5.7% in first quarter of 2017-18, many factors contributed for this slowdown including the demonetization of major currency note of the country which resulted in slowdown of economy. Output growth experienced downtrend except agricultural sector in the current financial year as compared to previous year and that led to the weak overall demand for the public and private consumption and investments.

In the recent past, the country had witnessed a major boost in terms of increased confidence showed by major rating agencies in the world and long term initiatives taken by the government to empower the nation. Steps taken by the government in recent past shown positive results in all the fundamental areas but that fail to showcase the same in its economic growth rate, baring all the short term hurdles, we can expect the country to grow faster with increase in real time GDP and other economic parameters such as inflation, employment growth, repayment of debt, reserves, etc.

Road ahead:

This developing mixed economy is currently ranked at sixth position in largest economies list and expected to become the third largest economy in absolute terms in a decade by doubling its size to US$ 4–5 trillion. Long term prospects of the country remain positive considering the young population, increase in investment rate, reduction in dependency ratio, increased foreign investments coming to the country, etc.

Capital Market:

Capital market is a most important and integral part of financial system of any country and it offers the support of capitalism to the county. It acts as a channel in movement of funds from the source of surplus funds to the source in need of money. Share market has gained lot of scope and importance in this country but debt market is still needs to be developed a lot to attract the funds from all the sources.

Capital market is a place for exchanging the long term securities, securities here represent the bundle of rights to person holds it in his name which are sold by companies, institutions and government authorities. There are different types of securities in the market with bundle of rights and there are mainly two levels of markets namely primary markets and secondary markets which deals with both stocks and bonds of the companies and the securities of the financial institutions of the country and government. Primary markets mainly deals with first time issue of financial instruments of long term nature to the public and private institutes and it consists of IPO, FPO and private placement whereas the secondary markets deals with the trading of those securities which are already issued to the public. Companies in need of funds will be benefited mainly from primary markets as it will help them to source the money required for their business but secondary markets will help the companies to increase the worth of the company. Country will gain benefit from both primary and secondary market; smooth functioning of both.

Indian capital market has its existence from long back and gained its importance post liberalization era. Indian economy undergone significant changes over the period of time, from the closed economy in 1980s to liberalized economy post 1990 and unprecedented growth after 2000. Its growth rate has increased tremendously in this era and today it has gained the top position as destination for investments by both domestic and foreign players. India's capital market shown tremendous strength to bounce back in stability and sustainability backing by strong reforms and governance of the controllers which can be evidenced by the major incidences affecting capital market.

Stock markets considered to be an integral part of capital market has its existence from long back and Indian stock market considered to be one of the oldest in Asia with a history of more than 200 years. India has 23 stock markets which spread across the country but Bombay stock exchange and National stock exchange gain more importance among all and witness the large volume trading in any day compare to other markets in the country.

Role of capital market in economic Development:

Capital markets plays vital role in development of any country and gains importance in promoting sustainable growth of the country. It acts as an imperative channel for mobilization of savings and converting it as investment with a view of enhancing long term growth prospects of the country. Thus, it acts as a major promoter in transforming country's economy into more efficient, competitive and innovative market place in the global amphitheater.

In India, capital market helped economy in many ways, by generating employment, mobilizing savings, keeping control on spending, eradicating poverty level and helping country to increase the consumption power of its private players. With a strong governance and regulation by SEBI, it is improving the efficiency of capital allocation through the enhanced mechanism called as competitive pricing.

It is also playing supporting role of developing financial institution and generating foreign capital by acting as a bridge between institutions and the players for exchange of funds, it helps the companies to source the money from public at ease and at low cost of transaction. It also helps in valuation of financial instruments and companies listed.

Literature Review:

We can hardly find any analytical research done on this subject matter. However, this topic is not new to research circle. Below mentioned researches conducted on other market were taken as reference while reviewing the literature for this study.

- Briggs Atebu, Patricia member of department of business education at Isaac Jasper Boro College at Nigeria conducted a study on capital market and economic growth of Nigeria during 2005. The research was taken up as an analytical study with an object of finding the impact of stock market and its variable on the Nigerian economy. He took market capitalization, new issue of shares and value of transaction as the stock market variable; applied multi regression and covariant model to test the data collected and concluded saying positive impact of stock market on Nigerian economy

- Omoruyi (1991), CBN (2004) had conducted the survey on the financial markets and its role in developing the economy. They also ended up giving the thumps up for the positive impact that financial market has on economy.
- Oke, Michael OJO, member of department of banking and finance at management science conducted a study on impact of capital market on Nigerian economy with an object of testing the relationship shared between the capital market of Nigeria with its economy and it ended concluding the moderate level of correlation towards the positive side.
- Catalyst institute had conducted a research to find out the role of capital market in economic development of the country in India. It was taken up as empirical study with a motive of explaining how capital market variables influence any country and its economy. It explained the impact of each components in detail and ended up with a conclusion that capital markets plays very important role in developing economy.

Research Problem:

India has witnessed the rapid and sustainable growth in last two and half decade and continuing to be a better performing economy in the world. Many factors contributes for the success of this economy in its own and specialized manners and capital market is also one among that. Many researchers and academicians proved that capital markets contributes to the success of the economy but, they fail to quantify the impact that capital market has on Indian economy leading the way for this research article.

In recent times, the concerns have been growing among policy makers to adjust for the capital markets while forming the economic policies, even though many research have been conducted over the period of time to quantify the results, fundamental weakness of most of those studies remains considerable which doesn't accounts for the validity of the time series data they have considered in their studies. Even there are instances that studies have been limited to the co-relation and simple regression models making way for a research accounting most recent data with enhanced statistical models.

This study tries to address the problem of quantifiable role of capital market on Indian economy with the use of recent data on Indian economy and capital market though advanced statistical model.

Objectives:

The primary objective of this study is to find out the quantifiable impact of capital market on Indian economy with the following secondary objectives.

- To find out the correlation between Indian GDP and major components of capital market.
- To analyze the trend of growth rate in GDP, market capitalization, turnover and exchange rate.

Research Methodology:

a. Data collection and sources:

This study is mainly based on the secondary data sourced for last twenty years starting from 1997-98. Data required for the study is real time GDP growth rates, various capital market parameters such as market capitalization, exchange rates and turnover of the market which is sourced through official websites of ministry of commerce, National stock exchange. NSE Nifty is considered as the representatives of Indian capital market while sourcing exchange rates.

b. Analytical tools and techniques:

Data collected from various sources mentioned above is analyzed using the advanced statistical models such as multi co-variant regression model and Karl Pearson's correlation of co-efficient models along with the basic tools such as mean, standard deviation and correlation model.

c. Model specification:

The link between capital market variables and Indian economy is examined using the regression model, below is the functional representation of the model.

GDP = f (Mktcap, Exgrate, Mktturn)

$GDP = \beta_0 + \beta_1$ Mktcap $+ \beta_2$ Exgrate $+ \beta_3$ Mktturn

Where: **GDP** is Real time Gross Domestic Product of Indian Economy.

Mktcap is Market capitalization of leading Indian stock markets.

Exgrate is Exchange rate of leading indices of Indian stock market

Mktturn is Market turnover of leading Indian stock markets

d. Hypothesis:

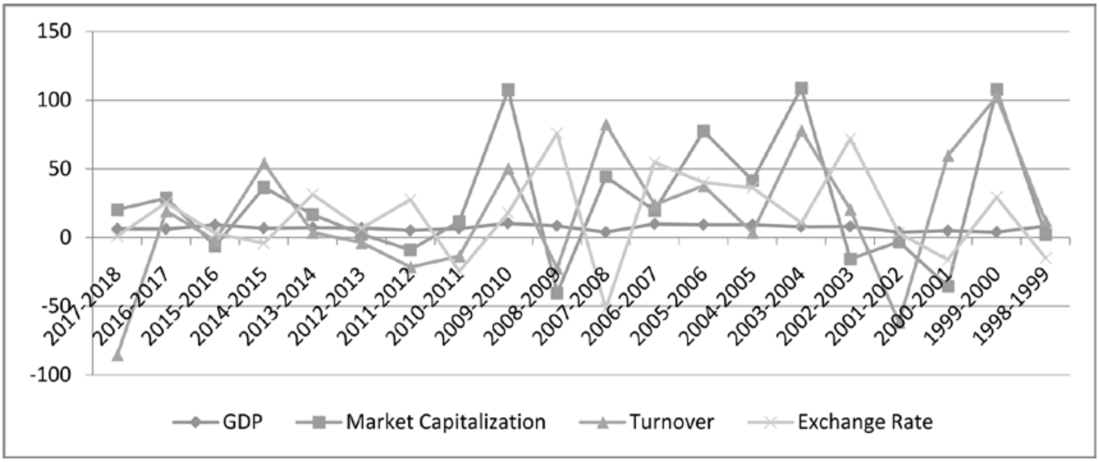
H_0: Indian Capital market and its variables does not have significant impact on the economic growth rate

H_1: Indian Capital market and its variables have significant impact on the economic growth rate.

DATA ANALYSIS:

Below table shows the Gross Domestic Product growth rate of India, market capitalization, turnover and exchange rate of national stock exchange of India.

Year	GDP rate (%)	Market capitalization (in INR cr.)	Market Turnover (in INR cr.)	Exchange rate
2017-2018*	6.3	14392501	735187	10363.65
2016-2017	6.1	11978421	5055913	10265.65
2015-2016	9.2	9310471	4236983	8185.8
2014-2015	6.7	9930122	4329655	7946.35
2013-2014	7.168	7277720	2808488	8282.7
2012-2013	6.899	6239035	2708279	6304
2011-2012	5.081	6096518	2810893	5905.1
2010-2011	6.638	6702616	3577412	4624.3
2009-2010	10.26	6009173	4138024	6134.5
2008-2009	8.48	2896194	2752023	5201.05
2007-2008	3.891	4858122	3551038	2959.15
2006-2007	9.801	3367350	1945285	6138.6
2005-2006	9.264	2813201	1569556	3966.4
2004-2005	9.285	1585585	1140071	2836.55
2003-2004	7.849	1120976	1099535	2080.5
2002-2003	7.944	537133	617989	1879.75
2001-2002	3.907	636861	513167	1093.5
2000-2001	4.944	657847	1339510	1059.05
1999-2000	3.975	1020426	839052	1263.55
1998-1999	8.463	491175	414474	977.24
1997-1998	6.184	481503	370193	1150.1



In the above table and graph, we can see the fluctuation in the GDP rate of India between 3.891 and 10.26 with an average growth rate of around 7% for last twenty years. We can observe that the economy saw the dip in numbers only during the world crisis time and except that it is posting the more than decent growth numbers. Market capitalization and turnover of the leading stock exchange of India was in uptrend for most of the years and it was growing at good rate from year to year. Average growth rate of the market capitalization was around 25% for last twenty years with 17% growth rate in turnover for the same period.

Exchange rate of the Nifty index was remained fluctuating during the period of study where it started from 1150.1 and ended at 10363. Baring few major dips caused due to global factored, this index fetched average year on year return of 16% for last 20 years.

Test results:

Below are the key descriptive statistics of the Indian GDP and capital market variables.

From the above table we can observe that Indian capital market variables have different level of correlation with Indian GDP. Market capitalization has the positive correlation with GDP whereas market turnover has negligible correlation with the dependent variable whereas exchange rate shares the considerable level of correlation with GDP at 0.45 levels. In simple terms we can term that market capitalization has weak uphill linear relation with GDP, turnover has no relationship with GDP and exchange rate has moderate level of uphill linear relation with GDP.

Regression Statistics	Values
Multiple R	0.491137362
R Square	0.241215908
Adjusted R Square	0.098943891
Standard Error	1.913709161
Observations	20

Above table shows the summary of regression statistics of the test. Multiple R represents the regression value of the test which stood at 0.49. This value suggests the proportion of the variance

Correlation	GDP	Market capitalization	Turnover	Exchange Rate
GDP	1			
Market capitalization	0.12336627	1		
Turnover	0.039738518	0.576663227	1	
Exchange Rate	0.45874414	-0.065266677	-0.127529435	1

in the dependent variable which can be explained by independent variables and, it measures the strength of the association. Study results shows that the regression level of the test is at 0.49 which suggest that these variables shares good relation or higher amount of association with each other. R square is the combined correlation between the variables used in the study and it stands at moderate level towards the positive side.

	df	SS	MS	F	Significance F
Regression	3	18.62771492	6.209238308	1.695455739	0.208050439
Residual	16	58.59652403	3.662282752		
Total	19	77.22423895			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 99.0%	Upper 99.0%
Intercept	6.4638	0.5536	11.6769	0.0000	5.2903	7.6373	4.8470	8.0806
Market capitalization	0.0096	0.0120	0.8008	0.4350	-0.0158	0.0351	-0.0255	0.0447
Turnover	-0.0045	0.0115	-0.3887	0.7026	-0.0289	0.0199	-0.0381	0.0291
Exchange Rate	0.0292	0.0139	2.0921	0.0527	-0.0004	0.0587	-0.0116	0.0699

In the above tables, we can observe that the statistical significance of the relationship shared by the variables. F values in the table is the resulted number arrived through the test which falls beyond the critical rezone for 20 variables run under 3,16 degrees of freedom. Hence, we fail to accept the null hypothesis. In order to prove insignificance of the movement the test result needed to be between the limits given in the table which is 5.29 to 7.63 but the test result is 1.69 which is much lesser than the table values.

P value is another significant factor deciding the acceptance level of the test and it also suggests that null hypothesis should be rejected. P value should not be greater than 0.05 to reject the null hypothesis but study suggest that the variables have the P value of 0.00. so we can conclude saying that capital market variables has the significant impact on the economic development of India.

Findings and Conclusion:

Many observations were made during the study with few core findings which includes the below.

- From the study we came to know that Indian capital markets have major influence and contribution on the performance of the Indian

GDP. Considering the GDP growth rate as the representative of Indian economic performance and market capitalization, turnover and exchange rates as capital market representatives , we found that these variables share the moderate level of correlation (0.24) with each other. Regression level between these variables is at 0.49 and that can be referred as high level of association that is being shared between the variables considered in the research article. We can also observe the high level of statistical testing significance for supporting the numbers posted by correlation and regression model through the gap in the F tested value and F critical value.

- The other major findings we observed during the research was the increasing trend in the number of shares listed in the stock market where the listed numbers was at 12 during 1997 and it reached 1851 in 2017 which is more than 2 times compared to beginning year considered in the study. It was also observed the increasing trend market capitalization and turnover where they posted the year on year growth rate of 25% and 17% respectively.

  Along with the above mentioned core findings, we also made few noticeable observations during the research which are as below.

- During the study, it was observed that India is one of the top growing economies ranked at top 2 in terms of growth rate, 3rd in overall economy size in terms of PPP and 6th in terms of nominal GDP size.
- Based on the current growth rate and the initiatives taken by the government of the country, it is being forecasted that Indian economy will be part of top 3 economies in the world by 2020 in terms of nominal GDP.
- During the study, it was observed that the Indian capital market has witnessed a drastic change which led it to be one of the top capital markets with high yield rate and secured transaction platform.
- From the study we found out that the Indian capital market is contributing to the economic growth in non-quantifiable ways to in the ways of employment generation, eradicating poverty level.

India is considered to be one of the most growing economies in the world and growing at a rapid pace to take part in the developed counties list. Keeping health economy is very important for any nation for that matter and it holds critically obligatory for India considering the population density and growing pressure from counterpart countries. Capital market is a most important and integral part of financial system of any country and it offers the support of capitalism to the county. It acts as a channel in movement of funds from the source of surplus funds to the source in need of money

After the critical analysis conducted on the various capital market factors affecting Indian economy and its significant contribution we can conclude saying that capital market has significant contribution for the success of the Indian economy.

Suggestions:

- Indian capital market is mainly concentrated on few region and exchanges; it is advisable to expand the market beyond those regions and exchanges. Effectiveness of the market will be improved when it has extended market coverage all over India.
- Equity market in this financial system has gained considerable importance and remained effective in contributing to the economy but the debt market of this emerging economy is lags in gaining importance that it dues. It is recommended to bring some reforms in this area to increase the trustworthiness of the debt instruments. Also it is suggested to introduce some lucrative debt instruments in the market to attack the savings.
- There is a slow shift from traditional GDP method to integral market analysis for checking the pulse of the economy, in this changing era it is better to keep the market free from biased and influential trading. It is recommended to enhance the trading mechanism and transaction level transparencies.

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INNOVATIVE PRACTICES IN BANKING MANAGEMENT AND THEIR ROLE IN ECONOMIC REVIVAL

Rohini Patil *
Sushmitha V. **

Abstract

Banking system occupies an important place in nation's economy and is indispensable in modern society. It plays a pivotal role in the economic development of the country. India is on rapid economic growth path. One of the major contributors to this growth is banking sector. In the last two decades the country has witnessed a phenomenal expansion in the geographical coverage and functional spread of our banking and financial system. Globalization has brought about structural changes including banking services. With the entry of information and communication technology, significant changes have been brought in banking system. The Indian banking industry is currently worth of USD 1.31 trillion. Banks are now aggressively utilizing the latest technologies like internet and mobile devices to carryout transactions and communicate with the masses. The banking industry is entering several new activities in the areas of merchant banking, leasing, housing finance, venture capital and other financial services in general. The range of services provided by our banks stretches from rural finance to international banking, from traditional services to innovative services. Hence contributing towards economic development of the country. The methodology adopted to study this paper is based on secondary data. This research paper highlights upon innovative banking services offered by Indian banks and its contribution to the economic development of India.

Key Words: *Innovative banking, Information and communication technology, Mobile banking, Internet banking, financial services.*

Evolution of Banking Institutions

Origin of the Word Bank

According to some economists, the word 'Bank" was derived from the German word 'BANC' which means a joint stock firm. While others say that it has been derived from the Italian word BANCO which means a heap or mound. As a matter of fact, at the time of establishment

* **Rohini Patil,** Asst Professor, MES Institute Of Management,
Email: rrpatilpatil@yahoo.com

** **Sushmitha V.** Asst Professor, MES Institute Of Management
Email: Sushmithanaidu9319@gmail.com

of Bank of Venice in 1157, the Germans were influential and hence, perhaps the word 'Banc' or 'Banco' was used by Italians to denote the accumulation of securities or money with a joint stock firm which later on with the passage of time came to be known as 'Bank'.

Development of Banking Institutions

The business of banking is as old as the civilization itself. As early as 2000 B.C, the Babylonians had developed a system of banks. They used their temples for lending at higher rates of interest against gold and silver which had been left with them for safe custody. Around the same time, the Greek temples were used as depositories for people's surplus funds and these were the center of money lending transactions.

In India, the ancient Hindu scriptures refer to the money lending activities in the Vedic period. During the era of Ramayana and Mahabharata, the banking had become a full-fledged activity. During the Smrity period which followed the Vedic period, the business of banking was largely carried on by the members of Vaish community. The banker in this period performed many of the functions which modern banker performs these days accepting deposits, granting of advances, acting as banker to the state and issuing and managing currency of the country.

The banking largely meant money lending and it was restricted to families working as sole proprietary firm. The bank of Venice founded in Italy in 1157 was the first public banking Institution.

It was only in 19^{th} Century that the modern joint stock commercial banking system developed in most of the countries. In India, the joint stock companies Act 1850 was the first legislative enactment which permitted the corporate sector to come into the banking business as per the provision of this Act. The first bank to be established under this act was the Oudh Commercial Bank in 1881 followed by Punjab National Bank in 1895 and People's Bank in 1901. After independence of the country in 1947, keeping in view the necessity of regulating rapidly growing business of banking institutions and their organizational problems, a separate act known as the Banking Regulations Act, 1949 was enacted. The banks now are no longer considered as mere dealers in Money but as institutions at the service of the people expected to make effective use of their saving for promoting maximum social good.

Indian Banking System

Banking industry in India has transcended a long path to assume its present stature. It consists of two parts:

a. The unorganized or indigenous sector.

b. The organized or modern sector.

The history of developments in Indian Banking System can be studied over two periods:

1. Pre- Independence Period.
2. Post- Independence period.

1. Pre – Independence period

Banking institutions during this period primarily consisted of indigenous banks, money lender, nidhis, loan offices etc. These institutions are to some extent still popular in rural and semi urban area. In 1850, the passing of the Joint stock companies Act greatly helped in the establishment of many commercial banks. Later on in 1921, the Imperial Bank of India and in 1935 the Reserve Bank of India were also established.

Indigenous Bankers:

They are individuals or firms dealing in hundis and sometimes accepting deposits as well. They continue banking with trading and commission business. They belong to different caste groups operating in specific areas like Multanis and Marwaris operate in Mumbai, Kolkata and Rajasthan, Chetties in Chennai etc.

They enjoy a prominent place among the various agencies providing finance to trade and industry by providing both short term and long term loans against all kinds of securities like gold, silver, land, promissory notes, hundis etc.

Money Lenders

Money lenders have existed side by side with the indigenous bankers who essentially finance consumption loans in the rural areas. They have a better personal report with their clients and grant both secured as well as unsecured loans. The security may be land, house or even crops to be grown.

Due to all round industrial and technological developments and competition by the co-operative banks, the money lenders have more profitable avenues of employment and have given up their business in the changed environment.

Nidhis, Chit Funds and Loan Offices

Nidhis are registered as companies under the Companies Act and are semi- banking institutions who raise funds either through deposits in monthly installments or through withdraw share capital.

Chit funds are registered as companies or societies under the Companies Act or the Societies Registration Act, they work on a small scale and raise funds from small number of persons and lend them to their members.

Loan officers are mostly found in West Bengal who raise their funds through deposits and lend money to Zamindars and their tenant cultivators.

European Banks

In the last quarter of 18^{th} century, English agency houses combined banking with their trading activities. The earliest European Bank was started in 1770 in the name of Bank of Hindustan. In order to cater to the needs of the foreign rulers, a number of quasi government banking institutions were established.

They included presidency Bank of Bengal 1806, presidency bank of Bombay (1840) and presidency bank of Madras (1840). The primary objective of these banks was to cater to the needs of alien rulers. In 1921, all these banks were amalgamated to constitute Imperial Bank of India.

Imperial Bank

The Imperial Bank was empowered to manage the clearing house and the government funds.

Reserve Bank of India

The Hilton Young Commission, in 1926 recommended the establishment of a separate central bank in the country known as Reserve Bank of India. It was established in April 1935 as the central bank of the country.

2. Post Independence period

The post independence period has witnessed a massive growth of the Indian Banking system. First step taken in this direction was nationalization of Reserve Bank System in September 1948 It was increasingly emphasized that the policy pursued by Reserve Bank for regulating and controlling the banking business in the country should sub serve socio-economic objectives as laid down by the government.

Reserve Bank of India

As the central banking authority, its functions include issue of bank notes, functioning as government's bank, banker's bank, custodian of foreign exchange reserves, setting up of and development of specialized financial institutions like IFCI, IDBI, NABARD etc.

State Bank of India

The Imperia1Bank of India was brought under public ownership and was converted into State Bank of India on 1st July 1955 with the objective of facilitating the extension of banking in rural and semi urban areas. By 1959, eight banks in the princely states were owned by State Bank of India and was popularly known as State Bank Group.

Social Control on Banks

The objective under this was to ensure purposeful distribution of available credit in terms of accepted investment priorities and correspondingly more efficient mobilization of savings.

Nationalisation of Commerecial Banks

1. First phase of Bank Nationalization: The scheme of social control was found to be unsatisfactory. The government felt that the public ownership of the major banks will help in the most effective mobilization and developments of national resources so that the objective can be realized with a great degree of assurance. Hence 14 major Indian scheduled Commercial Banks each with a deposit of Rs 50 crore or more were nationalized on 14th July 1969.

2. Second Phase of Bank Nationalization: On April 15th 1980, the president of India promulgated for transferring the ownership of six more Indian private sector banks each having deposits of Rs 200 crores or more as on 31st March 1980 to further control the heights of the economy.

Banking Innovations

Globalization of the economy has resulted in modernizations and innovation in Banks. Indian banking sector has undergone a huge transformation since 1990. In the 1990's greater emphasis being placed on technology and innovation. The business of banking especially financial service I retail banking is undergoing a sea change, as business shifts increasingly to the online environment. New concepts like personal banking, retail banking, and total branch automation were introduced.

Why do we need Technology in Banking?

- The increasing number of customers transacting online would move the 'market place' to 'market place' where banks would be forced to expand their product range to competitor's product, while rapidly innovating their own value added products.
- Intense competition between banks which is more severe in these adopt modern technology.
- Technology and more specifically the internet has evolved into an essentials access channel. The internet offers a cost effective means of innovating, publicizing and delivering services to the customer as well as to maintaining customer relationship.

Most of the banks, today use internet as their global expansion platform offering an increasing away of financial service online.

Technological innovations in Indian Banking Services

A. E-Banking services

B. Retail Banking

C. Plastic money and E-Money

A. E-Banking services – are the services providing banking products and various service through e-channel such as internet/mobile banking, e-banking or online banking. In simple words, it does not involve any physical exchange of money, but its all done electronically, from one account to another account using the internet.

From a personal computer, you can access your bank account information and perform many banking functions like transferring money, making payment etc. E-banking services of banks-are

Real Time Gross settlement (RTGS)

RTGS is a software package which provides an online settlement of payments between financial institutions on same day. The RTGS system now allows high value customer payments to happen through this system.

B. Retail Banking

Retail Banking refers to service provided to individuals, focusing on individual needs for different kinds of financial services in an integrated manner. It is providing increasing level of services and increased access by offering value added services to customers.

Retail payment systems are required primarily for purposes such as payments for goods and services, bill payments, cash payment and so on.

Retail payment system facilities can be classified in to two categories:

- Paper based payment system.
- Electronic clearing and settlement

1. Paper based payment system in India are as follows-
   a. MICR – Magnetic Ink Character Recognition
   b. Speed clearing of cheques drawn outside (CBS)
2. Electronic clearing and settlement
   a. ECS – Electronic Clearing Service.
   b. EFT – Electronic Fund Transfer.
   c. NEFT- National Electronic Fund Transfer.

3. Plastic Money and E- Money

Plastic money refers to the substitution of currency at the time when payment normally made of plastic. The most important advantage of plastic money is protection to the user from the risk of carrying cash.

The prevalent types of Plastic money are

a. Credit Card

b. Debit Card

c. Other Payment Channels

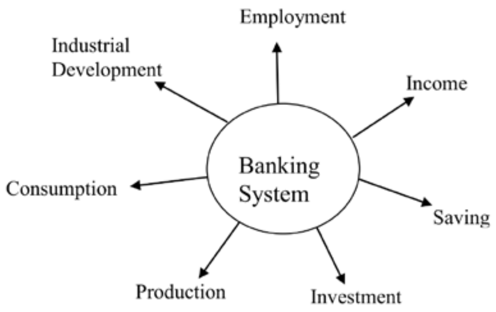
- Mobile Banking
- Prepaid Payment Instruments

Banking Innovations and Economic Development Of India

Since the nationalization of some big commercial banks in India, there has been a great surge in the banking industry throughout the world with the growing number of banking offices. The banking business today has become highly critical and competitive between various class of banks in offering a greater verity of service naturally and internationally. The main aim of modernizing banking system is to improve bank operations with a view to maintaining high standards in banking. In India class banking has given way to mass banking.

Innovation in banking system plays a very important role in the economic development of nation. Economic development is a dynamic and continuous process. Banks are the main stay of the economic progress of country. Because, the economic development highly depends upon the extent of mobilization of resources and investment and on the operational efficiency of the various segments of the economy. The major roles played by the banks in the development of economy of a country can be summarized as follows.

Economic Development through Banking System



From the above circle of development, one could understand that the banking system functions as nerve centre of the entire economic system of the country.

Importance of Banking Innovations and Economic Development

Banks plays a very important role in the economic development of every nation. They have control over a large part of the supply of money in circulation. Through their influence over the volume of bank money, they can influence the nature and character of production in any country.

In the process of economic development, the significance or contributions of modern banking system can be summarized as follows:

1. Capital formation:

The capital formation depends upon saving of various categories of people organizations. Banks offer facilities for saving and thus encourage the saving habit and industry among people. The banks with modern technology have designed a variety of novel schemes to attract the prospective customers to save with their banks.

For example: The Percentage of households availing banking service has increased from 35.5% in 2001 to 58.7% in 2011. As of May 2016, a total of 21.81 accounts have been opened under Pradhan Mantri Jan Dhan Yojana. Banks collect the small surplus and scattered savings of the people and make them available for productive purpose in large sums of finance.

2. Strengthens the organized sector of banking system:

Advancement in technology brought several changes in the operation system of banks. They are reaching more people with ICT system. Thereby they are strengthening the organized sectors and unorganized sectors for the overall economic development.

3. Helping agriculture and small scale industries:

The development of country not only depends upon the industrial development but also on the development of an agriculture and small scale and cottage industry. Small scale industries provide employment opportunities and goods manufactured by their sector are also exported out of India. Agriculture is sector which contributes around 17.9% of GDP of our country. The banks cater to the financial requirement of these sectors which leads to the economic progress of the country.

4. Bench Expansion:

Development in science and technology has definitely contributed to branch expansion of to rural and other areas, there by they are rendering banking service to remote areas. It has increased from 79,779 branches in 2009 to 1.3 Lakh branches in 2015.

5. Regulation of the flow of national income:

Banks regulate the flow of national savings into productive channels. They ensure the diversions of national savings into the productive purpose.

6. Maintaining balance of trade:

Through properly demised banking system the country can promote export through easy and timely credit facilities to exporters, quickly obtaining money from foreign buyers of goods. This will help to maintain the balance of trade in a favorable position.

7. Other Factors: with the advancement in sciences technology and digitalization following advantages

a. Improved customer experience.

b. Reduction of the costs for banking and customers as well as by using ATMs cashless transactions.

c. With more digital data available with banks, they can take data driven dynamic decisions by using digital analytics.

d. Technology is non-discriminatory everyone will be treated same at banks.

e. Digitalization reduces human error.

f. Need of handling large amount of cash will be reduced.

g. Rural and urban gap will be eliminated.

h. With the increasing cashless transactions fake currency threat will be reduced.

CONCLUSION

To conclude, innovations in banking sector in India did a wonderful job. Banks are not just a part of our lives but have significant role in our daily lives. For many, day will not end without at least single financial transactions. Thus banks always try to adopt latest technologies to benefit the customers. The developments in telecommunication technology and electronic data processing have contributed to remarkable changes in banking sector. With the increasing usage of smart phones, digitalization of banking sector is inevitable to catch-up the increasing capitalisms of the world. It indeed reduced human errors and increased convenience and has significantly contributed towards economic development of the country. But the cyber threats are on the rise, banks must be very careful and should be prepared to handle such cyber-attacks.

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