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# A REVIEW ON FACTORS AFFECTING ADOPTION OF MOBILE BANKING

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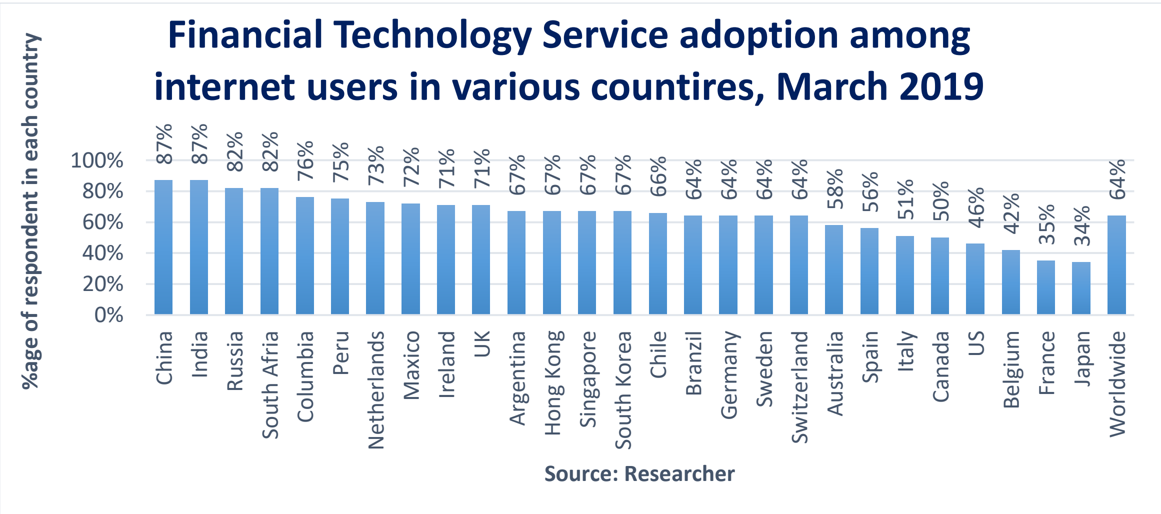
## ABSTRACT
*Mobile banking has arisen as an important distribution channel. It facilitates its customers to perform banking transactions on their mobile phones. This facility is provided by most of the banks in India and abroad. Customers can do various activities like viewing account balance, transfer funds, paying various bills etc. Mobile banking has already adopted by many consumers for doing banking transactions but the adoption is high only in some urban areas and metro cities but rest of the country is still untapped. This review paper aims to briefly review the literature on various factors influencing adoption of mobile banking identified by various researchers in worldwide and in India and advise guidelines for future research in this still developing field The most important drivers to adopt m banking are perceived usefulness, perceived ease of use and Perceived risk is the most important factor which inhibits the adoption.*

## KEYWORDS
mobile banking, banking transactions.

## JEL CODES
O33, O33.

## INTRODUCTION
Mobile banking is an ability which allows customers to perform banking tasks on their mobile phones. This is offered by most of the banks across the world. Customers can use mobile banking to do various banking activities like checking account balance, make fund transfers and pay bills, etc. Mobile banking can be done by various ways such as mobile apps, SMS, USSD. Financial technology services adoption among internet users has doubled during the past two years, and the adoption rate is growing. The data was collected from 27 markets in March 2019. It shows average 64% of digitally active consumers. (Global FinTech Adoption Index 2019)

**CHART 1**




Rising of consumer awareness and the swiftness at which customers can access their accounts using mobile has also led in a fall in usage of website usage and visits to bank branches. Footsteps to branch has fell from 476 million in 2011 to 278 million in 2016(UK finance report 2016). The current stats of mobile adoption are good news for the banks and the economy. This review paper aims to briefly review the existing literature on Mobile banking carried out worldwide and in India. The review paper has also made an attempt to produce the results and highlight the factors that affect Mobile banking adoption in India and Worldwide. This research examines 30 journal articles published between 2011 and 2019 in top journals. This review is an analysis based on studies published in technology, innovation, finance, banking journals, and major conferences.

## OBJECTIVE OF THE STUDY
Mobile banking is one of the most significant development to occur in the retail banking sector. It has provided convenience to the customer of accessing banking information anytime and anywhere. But still it is not accepted well by the banking customers. Hence it is important to explore the factors that motivate consumers in adoption of this new technology. The objective of this paper is to review the existing literature on M banking done in India and worldwide. The paper has made an effort to highlight the factors that predict the consumer's intention to adopt m banking. The review results indicate Perceived usefulness, perceived risk, perceived ease of use, self-efficacy, Social Norms, Personal Innovativeness, Financial Cost, Performance Expectancy, Hedonic Motivation are the important factors that affect adoption of m banking among the consumers.

## RESEARCH METHODOLOGY

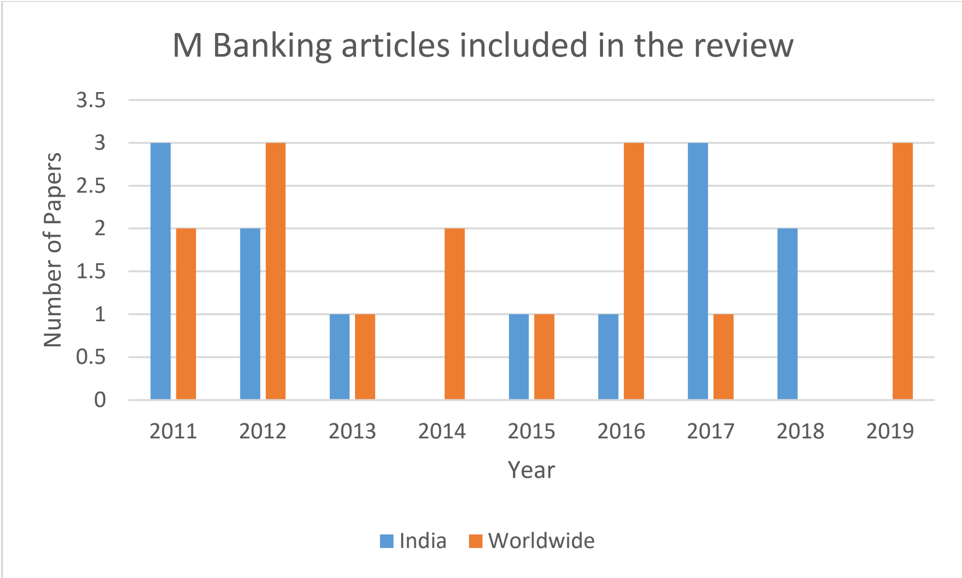
To determine the up-to-date and future directions in identifying the factors affecting adoption of m-banking we conducted an extensive and systematic literature review using Google scholar and Ebsco. The search scope was performed for the 9 years period from 2011 to 2019. We identified published articles pertaining to factors affecting m-banking, the search was further refined by reading the abstract and the papers which were not strictly focused on our research objective were excluded. The first abstraction included 50 papers, but the final assortment included 30 articles, including conceptual and empirical research papers. The following points were considered for including or excluding an article from the review:

- Identify and understand the main themes of research on mobile banking.
- Identify the factors affecting adoption of mobile banking.

The rest of the paper is organized as follows. The next section is of previous literature reviews on mobile banking with classification done in India or outside India with an objective to explore factors affecting mobile adoption. The findings in the next section and, finally, we present the conclusions, limitations, and future directions for research.

At the end of this selection stage, the number of studies was 30. Figure 1 summarizes the works in India and worldwide by year of publication.

**CHART 2**




Source - Researcher

## REVIEW OF FACTORS AFFECTING MOBILE BANKING STUDIES WORLDWIDE

Ching Mun Cheah et al. (2011) Researcher investigated the factors affecting consumer intention to adopt mobile Banking in Malaysia. A self-administrated questionnaire had been developed to the customers. He found factors such as perceived usefulness (PU), perceived ease of use (PEOU), relative advantages (RA) and personal innovativeness (PI) were positively influencing the intention to adopt mobile banking whereas social norms (SN) found to be insignificant and perceived risks (PR) was negatively affecting the adoption.

Shallone K. Chitungo et.al (2011) This empirical study investigates the applicability of the extension TAM in determining the factors that influence unbanked rural communities in Zimbabwe and found perceived usefulness, perceived ease of use, relative advantages, personal innovativeness and social norms have significant effect on user's attitude to adopt mobile banking.

Zohra Saleem et.al (2011) The purpose of this research is to identify the major factors influencing customer in Pakistan for mobile technology and found that security, authenticity and reliability of the technology are most significance.

Chian-Son Yu (2012) This study employs the Unified Theory of Acceptance and Use of Technology (UTAUT) to examine the factors impacting people to adopt mobile banking and found social influence, perceived financial cost, performance expectancy, and perceived credibility significantly influence consumer in adoption.

Ulun Akturan et al. (2012) aims to examine consumers' adoption of mobile banking by integration of the technology acceptance model from 435 university students who were future prospects and found that perceived usefulness, perceived social risk, perceived performance risk and perceived benefit directly affect attitudes towards mobile banking adoption.

Yong-Ki Lee et al. (2012) researcher examined factors based on general technology perceptions, technology-specific perceptions, user characteristics, and task-user characteristics influencing the intention to use mobile financial services (MFS). The data was collected from the bank customers of Korea and found that perceived task technology, versus a task characteristic view, significantly influences perceived usefulness.

Mohammad Rokibul Kabir (2013) The study investigates the factors that influence the users to use mobile banking in Bangladesh. Researcher analysed these factors under the four major factors Perceived Risk, Trust, Convenience, Relative Advantage and found ability, integrity, benevolence, perceived usefulness, perceived ease of use relative cost and time advantages are positively related with the intention to use mobile banking services

Payam Hanafizadeh et al. (2014) Researcher provides insights into factors affecting the adoption of mobile banking in Iran and found eight latent variables of perceived usefulness, perceived ease of use, need for interaction, perceived risk, perceived cost, compatibility with life style, perceived credibility and trust found significant affect the adoption of mobile banking.

Tiago Oliveira et al. (2014). This study found that factors influencing m banking adoption are facilitating conditions, Initial trust, performance expectancy, technology characteristics, task technology fit and behavioual intentions directly influence m banking adoption. The study was conducted in Portugal with a sample of 194 individuals.

John Wamai et al. (2015) This study investigates the factors that effects the adoption of mobile by customers of Microfinance Institutions in Kenya. 210 customers were selected randomly and found that both perceived usefulness and perceived ease of use positively affects adoption of mobile banking technology. Perceived Risk and Perceived transaction costs have negative effect on the adoption of mobile banking technology.

Adegbenjo A.A et.al (2016) This paper examines adoption and usage of m banking services for potential uses in developing countries and found lower interactions cost, availability of 24 hours services in a day and increase in the efficiency of the banking process are some of the positive factors for its adoption.

Shunbo Yuan et.al (2016) This researcher develops a research model and studied the factors in on the users of mobile banking in China and found satisfaction, perceived usefulness, perceived task-technology fit, and perceived risk are the main predictors of continuance intention of adoption of m banking.

Veera Bhatiasevi (2016) attempts to identify the factors for the adoption of mobile banking in Thailand. Researcher has used extended existing UTAUT model. The results showed that performance expectancy, effort expectancy, social influence, perceived credibility, perceived convenience, and behavioual intention posited a positive relationship to use mobile banking.

Sujeet Kumar Sharma (2017) This paper explores major antecedents influencing the mobile banking acceptance by extending two factors autonomous motivation and controlled motivation to TAM. Data was collected in Oman from 225 respondents and found major factor influencing adoption was trust and autonomous motivation.

Abdullah M. Baabdullah et al. (2019) combines two models UTAUT2 and the D&M IS Success Model. It was found that factors like performance expectancy, price value, facilitating conditions, hedonic motivation, habit, system quality and service quality have a significant impact on actual use behaviour.

Abdulkader Kaakeh et al. (2019), researched on bank customers living in UAE. to investigate the effects of factors like image, awareness, Shariah compliance and individualism, on the attitude and intention of customers. It was found that attitude and awareness affect intention directly, while image, awareness, Shariah compliance and individualism affect attitude directly and intention indirectly mediated by attitude.

Lute Sakala et al. (2019) The study was done in Zambia to identify the factors that affect the adoption and use of mobile banking services. Researcher designed the questionnaire using TAM and collected a sample of 384 respondents having retail saving or current account in commercial bank and found positive relationship between perceived ease of use, perceived usefulness, user attitude, external variables, user intention and system use.

## REVIEW OF FACTORS AFFECTING MOBILE BANKING STUDIES IN INDIA

Archana Sharma (2011) This paper examines consumer adoption of a new electronic payment service and the positive factors influencing its adoption found are perceived risk, security and trustworthiness of the services.

Purnima S. Sangle et al. (2011), this paper empirically explores the factors that can be used for making better mobile customer relationship services in banking and found perceived utility value is regarded as the most important factor.

Siddhartha, Dasgupta et al. (2011) This study examined the antecedents to behavioual intention of mobile banking in Hyderabad and found Perceived Usefulness, Perceived Ease of Use, Perceived Image, Perceived Value, Self-Efficacy, Perceived Credibility and Tradition all positively affects behavioual Intentions towards mobile banking usage.

Mohini S Samudra et al. (2012) This paper attempts to study the adoption of mobile banking in Pune city using the UTAUT model. Researcher used wide array of constructs to study the adoption and found convenience, compatibility, perception, social influence and Information are useful for the adoption of mobile banking services.

Reji Kumar et al. (2012) examines the factors influencing the continuance decisions of adopters of m-banking services in Kerala and found perceived service quality, satisfaction and continuance intentions are positive towards adoption of m banking.

Yogesh Jain (2013) paper examines factors influencing the adoption of consumer adoption of a new electronic payment service in South Rajasthan and found risk and security are the most significant factors for banking service adoption.

P. S. Aithal et al. (2015) This is an empirical study to explore customer acceptance of mobile banking by developing six hypotheses and found demography of customers, personal banking experience & incentives, technology experience, psychology & culture, and security & trust are the factors affecting usage of M banking.

**S**. V. Krishna Kishore et al. (2016) examined respondents of rural provinces in Karnataka state and used mixed sampling technique to collect 959 samples and found PE, EE, SI, Attitude, and PR significantly affect the dependent variable BI.

Deepak Chawla et al. (2017) empirically examined the influence of different factors on user attitude and intention towards adopting mobile banking and found perceived trust, perceived ease of use (PEOU), perceived lifestyle compatibility, perceived efficiency and perceived convenience significantly affect user attitude towards adoption.

Sumeet Gupta et al. (2017) researcher exploratory attempts to understand that the levels of security affect perceived risk and control on the consumer and ultimately it effects the adoption of mobile banking by Indian customers. It was found perceived risk and control plays and important role in influencing customers' intention to adopt mobile banking.

V.V. Ravi Kumar et.al (2017) article studies the factors influencing intention to use mobile banking on management students. The study utilizes two constructs of the technology adoption model and then extends it further to include two additional constructs. The results suggest that perceived usefulness and perceived ease of use, social influence and trust propensity are the underlying factors in respect of the behavioural intention to use mobile banking services.

Amit Shankar et al. (2018) identified perceived ease of use (PEOU), perceived usefulness (PU), trust, and self-efficacy (SE) are significant and have positive impact on affecting mobile payment adoption intention in India.

Richa Priya et al. (2018) examined the factors affecting mobile banking adoption among young Indian consumers. 269 respondents aged between 23 and 30 years. findings of the study suggest that perceived usefulness (PU), perceived ease of use (PEU), perceived credibility (PC) and structural assurance (SA) are strong determinants of user satisfaction (US) and behavioual intention (BI) to use the mobile banking service.

## DISCUSSION

The review reveals that which factors influence more in accepting mobile banking adoption across the world. It also helps us to identify the degree of influence of each one of the factors. The literature also gives the vision in to the modality of Mobile banking transactions. Literature review has experiential some significant points that needs attention by the banks and financial institutions to know about the fear of the customers that is not encouraging them to use m banking. These findings can help the banks to customise their services focussing on demographic feature or as per the geographic needs. Figure 2 summarizes the factors high-lighted by various researchers in India and worldwide undertaken in the study.

**TABLE 1**

| Source | Various Factors identified | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Authors | PU | PEOU | RA | PI | SN | PR | PC | FC | PE | Trust | lifestyle | PM/SE | HM |
| Ching Mun Cheah et al. (2011 | ↑ | ↑ | ↑ | ↑ | | | | | | | | | |
| Shallone K. Chitungo et.al (2011) | ↑ | ↑ | ↑ | ↑ | ↑ | | | | | | | | |
| Purnima S. Sangle et al. (2011) | ↑ | | | | | | | | | | | | |
| Siddhartha, Dasgupta et al. (2011) | | | | | | | | | | | | | |
| Archana Sharma(2011) | | | | | | ↑ | ↑ | | | ↑ | | | |
| Chian.Son Yu (2012) | | | | | ↑ | | ↑ | | | | | | |
| Ulun Akturan et al. (2012) | ↑ | | | | | ↑ | ↑ | | | | | | |
| Yong.Ki Lee et al. (2012) | ↑ | ↑ | | ↑ | | | | | | | | | |
| Mohini S Samudra et al. (2012) | ↑ | ↑ | | | ↑ | | | | | | ↑ | | |
| Reji Kumar et al. (2012 | ↑ | | | | | | ↑ | | | | | | |
| Yogesh Jain (2013) | | | | | | ↑ | ↑ | | | | | | |
| Mohd. Rokibul Kabir (2013) | | ↑ | ↑ | | | ↑ | | | | ↑ | | | |
| Tiago Oliveira et al. (2014). | | ↑ | | | | | | ↑ | ↑ | ↑ | | | |
| Payam Hanafizadeh et al. (2014) | ↑ | ↑ | | | | ↑ | ↑ | ↑ | | ↑ | ↑ | | |
| P. S. Aithal et al. (2015) | ↑ | | | | ↑ | | ↑ | | | ↑ | | | |
| John Wamai et al. (2015) | ↑ | ↑ | | | | | | | | | | | |
| Adegbenjo A (2016) | | | | | | | | ↑ | | | | | |
| Veera Bhatiasevi (2016) | | ↑ | | | | | | | | | | | |
| Shunbo Yuan et.al (2016) | ↑ | ↑ | | | | | ↑ | | | | | | |
| S. V. Krishna Kishore et al. (2016) | ↑ | ↑ | | | ↑ | | ↑ | | ↑ | | | | |
| Deepak Chawla et al. (2017) | ↑ | ↑ | | | ↑ | | | | | ↑ | ↑ | | |
| Sumeet Gupta et al. (2017) | | | | | | ↑ | | | | | | | |
| V.V. Ravi Kumar et.al (2017) | ↑ | ↑ | | | ↑ | | | | | ↑ | | | |
| Amit Shankar et al. (2018) | ↑ | ↑ | | | | | | | | | | ↑ | |
| Richa Priya et al. (2018) | ↑ | ↑ | | | | | ↑ | | | | | | |
| Sujeet Kumar Sharma (2017) | | | | | | | | | | ↑ | | ↑ | |
| Lute Sakala et al. (2019) | ↑ | | | | | | | | | | | | |
| Abdulkader Kaakeh et al. (2019) | | | | | | | | | | | | | |
| Abdullah M. Baabdullah et al. (2019) | | | | | | | | ↑ | ↑ | | | | ↑ |

Source - Researcher

SN Social Norms, PR Perceived Risk, RA Relative Advantage, PEOU Perceived ease of use, PU Perceived usefulness, PI Personal Innovativeness, FC Financial COST, PE Performance Expectancy, PI Personal Innovativeness, HM Hedonic Motivation

The user will adopt m-banking only when they find its benefits are more than the cost associated with it. The common findings across the studies in India and world-wide are that Perceived usefulness and Perceived ease of use, compatibility are the common factors which are the positive motivators for the customers to use mobile for banking activities whereas trust, risk, security, are found to be important factors that affect m banking adoption. Banks should work upon framing of relevant policies, proper regulations, and legal frameworks that will abide more confidence in the customer to shift from traditional banking to m banking.

## CONCLUSION

Mobile banking is a convenient and fast, way to do banking transactions. Banks should offer some value-added service and take steps to develop confidence in the customers to promote mobile banking adoption. If customers observe that bank has sound managerial and technical system of managing mobile banking transactions and their financial transactions will be performed without any error. Moreover, banks should demonstrate how to do m-banking in their branches and website. Banks should offer some advantages to customers doing mobile banking so that users are encouraged to take the advantages. A satisfied customer will motivate his family, friends around to use m banking.

## SCOPE FOR FUTURE RESEARCH

Smartphones devices have allowed constantly on the go in many ways. There are many banking applications, or apps assisting the users to fulfil banking needs virtually. Users love this convenience but risk in their mind is not allowing them to use this facility. Researcher should explore this these unfounded fears. Secondly most of the research is done in urban areas. Financial Conduct Authority (FCA) also recently published the latest analysis from its Financial Lives survey, which surveyed about the preferences of approximately 13,000 people in U.K. and it interestingly, revealed people in rural areas looks like they are suffering from technophobia to use banking services so that can be the departure for more research.

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# EFFECT OF NON-PERFORMING ASSETS ON BANKING SECTOR: A STUDY ON STATE BANK OF INDIA

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## ABSTRACT
*Non-performing asset (NPA) is a critical challenge for the banking sector in India and the world as a whole now-a-days. It is negatively affecting the profitability of the banking industry over the period. The NPA is a drag on the banking sector. Various related studies, researches and banking statistics evidently show that the NPA is increasing more rapidly in the public sector banks than private sector banks in India scenario. It could only meet up by the vital and efficient asset management wings on the banks. Indian is holding 33rds position in respect of the world's gross NPA ratio (10.3%). This paper has attempted to analyze the effect of NPA on the profitability and the trend of NPA of the State Bank of India over last ten years from 2009-10 to 2018-19. The study reveals that the NPA has a gradual increasing trend, but a sharp decline in year 2018-19. The paper also shows that the NPA has an inverse effect on the profitability of the State bank of India.*

## KEYWORDS
non-performing assets, public sector banks, private sector banks, efficient asset management, profitability.

## JEL CODES
G20, G21, G33.

## INTRODUCTION
At the ancient time the banking system was started with the primary objective of receiving deposits from public and lending loans to public for the purpose of mobilizing the funds in the society. They charge interest on loans and pay interest on deposits. In this way, they earn a profit. So, loans are the assets of the banks whereas the deposits are liabilities for the banks. So, far the loan borrowers are paying due interest and repaying the installment of principal loan amount on due time, loan assets are good or performing assets for the banks. When these assets fail to generate income for the banks then they are termed as non-performing asset (NPA). The loan assets are classified under four categories like good advance, sub-standard advance, doubtful advance and loss advance. Out of these classes, sub-standard advance, doubtful advance and loss advance are termed as gross non-performing asset. The NPA is a vital indicator for assessing banks' credit risk, asset quality and efficiency in allocation of resources to productive sectors. Efficiency in management of loans and advances is becoming a critical task across the world. Our nation India is not the exception. The amount of bad loans and defaulters are gradually increasing over the years in India especially in public sector banks. The NPA is like a tough virus in the banking industry. It is gradually affecting the financial health of the banking industry and also the economy of the nation.

According to the IMF data, India is holding 33rd position among the 137 countries of the world in respect of gross NPA ratio. Presently, its gross NPA ratio is 10.3%. The Ukraine has the highest NPA ratio followed by San Marino and Greece. They have 54.3%, 47.2% and 44.1% NPA ratio respectively. The Canada has the lowest NPA ratio followed by the Republic of Korea and Switzerland. They have 0.4%, 0.5% and 0.6% of NPA ratio respectively[1]. Here, the gross NPA ratio is expressed in terms of the ratio between of non-performing loans to total loans & advances.

According to RBI data, the gross NPA ratio for the Indian Public Sector banks is 14.6%, private sector banks is (old-1.9% & new-4.7%) and foreign banks is 3.8%[2]. So, Indian public sector banks have higher NPA ratio comparison to private sector and foreign banks. The State Bank of India, having the highest market capitalization, has been selected as a sample unit for the purpose of this study. The gross NPA ratio of SBI is 10.9% as of 31.03.2018[3].

## LITERATURE REVIEW
Several studies have been conducted by many academicians and researchers on a different aspects non-performing assets in Indian banking sector. Some of them are highlighted below.

Nachimuthu & Muthukrishna (2019) discussed the impact of NPA on the profitability in Indian scheduled commercial banks. They found that there was an increasing trend in NPA and due to such rise of NPA the profitability of the scheduled commercial banks had reduced in India.

Bawaa, Goyala, Mitraa, & Basub (2019) examined panel data for Indian banks with some specific financial ratios which reflects the operating capability, liquidity, solvency, profitability capital adequacy and business development capacity aspects across Indian banks which affects NPAs. They found a significant negative relationship between asset growth and NPAs in India.

Kapadia & Madhav (2019) analyzed the trends of NPAs and the factors responsible for mounting NPAs in the banking sector from non-identical aspects.

Bag & Islam (2019) aimed to analyze the recent trend of NPAs in the banking industry (public & private) with reference to India and Bangladesh. They also examined the relationship between NPAs and profitability of the banking industry. They found that the NPAs had an inverse impact on the profitability of both types of banks in both the nations, but problems were more serious for public sector banks than private sector banks. They also observed that the growths in NPAs in public sector banks were upward rising in both the nations.

Gulati (2018) analyzed new private sector banks with respect to their efficiency in NPA management comparatively. They used growth rate analysis and descriptive analysis. They found that some of the new private sector banks are more efficient in NPA management than other some new private sector banks in India.

Dave (2016) made an attempt to analyze the impact of Indian banking operations, trend and magnitude of NPAs in selected Indian public and private sector banks. He found that NPAs affect the liquidity and profitability, in addition to posting threat on quality of asset and survival of banks.

Ramasubbian & Thangavelu (2015) focused on the future trend of the NPA in Indian banking sector with the help of list square method and time serious analysis. They observed that the asset quality and financial health of private and foreign banks is improving in comparison to public sector bank and schedule commercial banks in India.

Bandyopadhyay (2013) made an analytical study to reveal the movement of NPA over time. He demonstrated an upward future trend of the NPA in the public sector banks in India. It puts a question mark on the wisdom and integrity of the top management of banks in handling credit portfolio. They suggested for replacing the practices of credit appraisal and monitoring of credit in public sector banks in India.

## OBJECTIVES OF THE STUDY
1. To evaluate the trend of the NPA in SBI.
2. To examine the effect of NPA on the profitability of SBI.

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[1] IMF Data, Quarter ended September 2018.
[2] RBI data, March 2018
[3] RBI data, March 2018

## RESEARCH METHODOLOGY

The study is purely based on secondary data. The data have been collected from various related research articles, journals, RBI bulletin, annual reports of the State Bank of India (SBI) and web based resources. The study period is ten years from 2009-10 to 2018-19. The trend analysis has been used to show the movement of NPA during the ten years of the study period. The regression analysis has been done to predict the effect of NPA on the profitability of the SBI in the said study period. In this study, profitability of the banking sector has been shown in three important dimensions such as net profit margin (NPM), return on assets (ROA) and return on equity (ROE). The non-performing assets have been measured as a ratio of net non-performing assets to net advances. NPA is taken as independent variable (IV) and profitability measures are considered as dependent variable (DV) in the study. Two variable static linear regression model is "Y = a + b.X + e". Where, Y= Profitability, a = constant term, b = regression coefficient for the independent variable, X = NPA, e = error term. The data have been analyzed with the help of statistical package Gretl to draw logical conclusion. Initially, while testing the stationary of the original time series data set imported in Gretl through a unit root test (ADF), presence of non stationary has been found in the data set. To make the data set stationary, the first difference of the variables is taken for the purpose of running the Ordinary Least Square model.

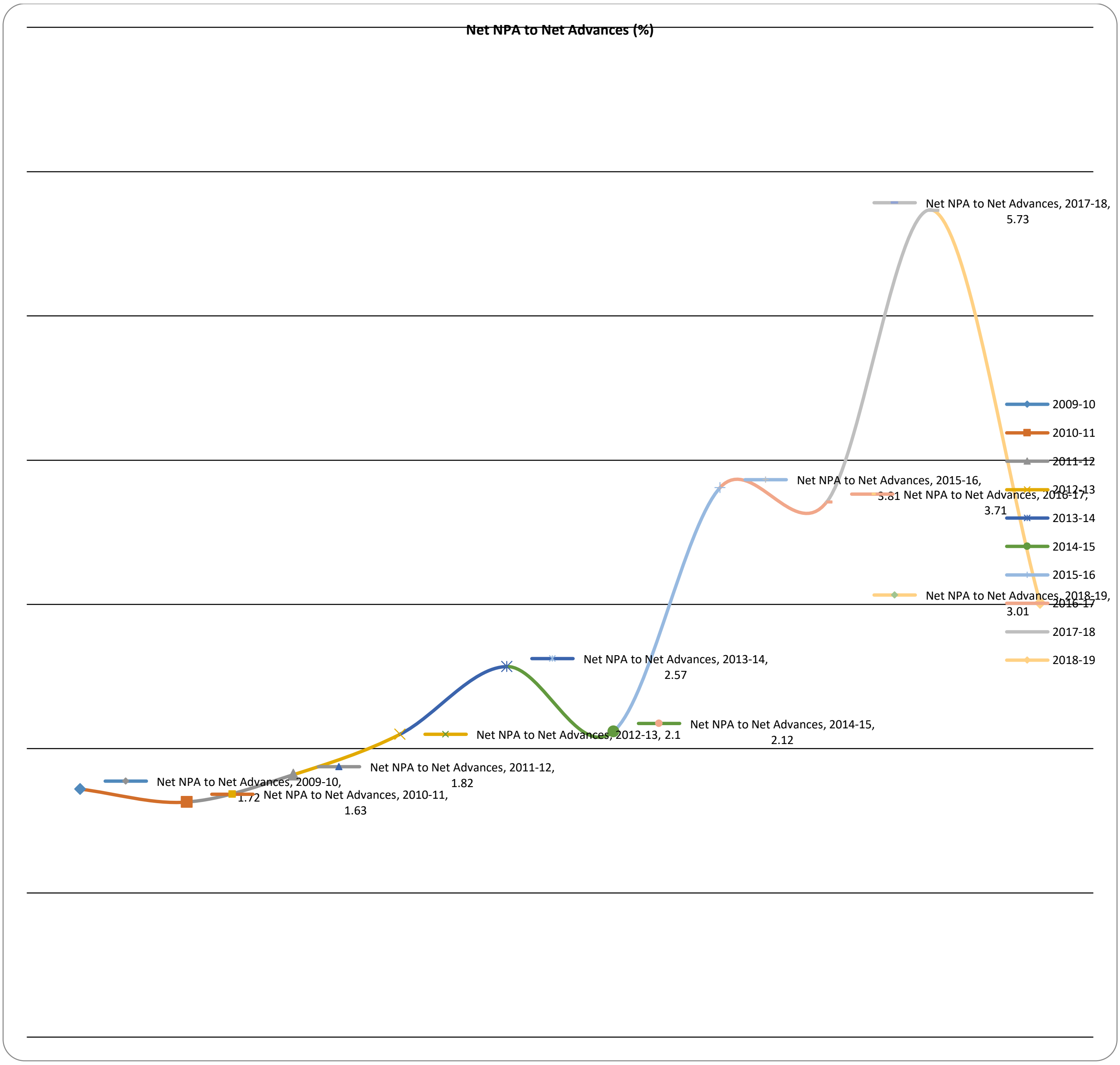
## HYPOTHESIS

$H_o1$: There is no relationship between non-performing asset and net profit margin of SBI
Regression model: NPM= a + b.NPA+ e (IV is NPA & DV is NPM)
$H_o2$: There is no relationship between non-performing asset and return on assets of SBI
Regression model: ROA= a + b.NPA+ e (IV is NPA & DV is ROA)
$H_o3$: There is no relationship between non-performing asset and return on equity of SBI
Regression model: ROE= a + b.NPA+ e (IV is NPA & DV is ROE)

## DATA ANALYSIS AND DISCUSSION

**Trend Analysis:** In this section, trends of the NPA has been shown in the following diagram over the last ten years from 2009-10 to 2018-19.

**DIAGRAM 1: TRENDS OF NPA OF SBI FROM 2009-10 TO 2018-19**




Source: Compiled from the annual reports of SBI of various years.

**Interpretation:** From above diagram, it has been observed that there was an increasing trend in NPA from 2009-10 to 2013-14. Thereafter a slight decline in 2014-15 then a sharp hike in 2015-16. In 2016-17, there was a quite stability. Again a sharp up clime in 2017-18 and a straight clime down in 2018-19. This final decline has been seen at the bank has been taking some precautionary measures to reduce NPA.

**Regression Analysis:** In this section, two variable static linear regression model analyses have been done with the help of SPSS to test the hypotheses and their respective results are shown below in the following tables:

**Hypothesis Testing - 1**

$H_o1$: There is no relationship between non-performing asset and net profit margin of SBI

Regression model: NPM= a + b.NPA+ e (IV is NPA & DV is NPM)

Model 1: OLS, using observations 2011-2019 (T = 9)

Dependent variable: d_NPM

**TABLE 1**

| | *Coefficient* | *Std. Error* | *t-ratio* | *p-value* | |
|---|---|---|---|---|---|
| const | −0.895209 | 0.672294 | −1.332 | 0.2247 | |
| d_NPA | **−1.77761** | 0.522661 | −3.401 | **0.0114** | ** |

**TABLE 2**

| | | | |
|---|---|---|---|
| Mean dependent var | −1.150000 | S.D. dependent var | 3.053498 |
| Sum squared resid | 28.12111 | S.E. of regression | 2.004321 |
| R-squared | **0.622995** | Adjusted R-squared | **0.569137** |
| F(1, 7) | **11.56739** | P-value(F) | **0.011426** |
| Log-likelihood | −17.89728 | Akaike criterion | 39.79456 |
| Schwarz criterion | 40.18901 | Hannan-Quinn | 38.94334 |
| rho | 0.035284 | Durbin-Watson | **1.812778** |
| Heteroskedasticity Test: White's test with p-value = **0.131885** | | | |

** Significant at 5%. (Source: Compiled by researcher)

**Interpretation:** The above tables show that there are two variables, namely, net profit margin (NPM) and NPA. The dependant variable is net profit margin and the NPA is an independent variable. Here NPA is measured as the ratio of net NPA to net advances. The model is NPM = a + b.NPA + e.

In this model, P-Value for beta coefficient of net profit margin is 0.0114 which is significant at 5% significance level. So, the null hypothesis is rejected and the alternative hypothesis is accepted. So, it can be concluded that there is a relation between NPM and NPA. Here, the value of F is 11.56739 which is also significant at 5% significance level. The value of R square is 0.622995 which indicates that the model is a good fit and there is a high correlation between NPM and NPA. But the negative sign of the regression coefficient indicates that there is an inverse relationship between these two variables. The adjusted R square value is 0.569137 which implies that NPA can explain about 57% of the variance in NPM. It is also notable that there is no problem of auto-correlation in the time series data used for the study, as the values obtained by Durbin-Watson test is around one (1.812778). White's test has been done for checking heteroskedasticity. The test result (P- 0.131885) shows that there is no heteroskedasticity in the data set. From the above interpretations, finally, it can be concluded that NPA has a negative impact on net profit margin of SBI.

**Hypothesis Testing - 2**

$H_o2$: There is no relationship between non-performing asset and return on assets of SBI

Regression model: ROA= a + b.NPA+ e (IV is NPA & DV is ROA)

Model 2: OLS, using observations 2011-2019 (T = 9)

Dependent variable: d_ROA

**TABLE 3**

| | *Coefficient* | *Std. Error* | *t-ratio* | *p-value* | |
|---|---|---|---|---|---|
| const | −0.0749139 | 0.0617226 | −1.214 | 0.2642 | |
| d_NPA | **−0.144012** | 0.0479850 | −3.001 | **0.0199** | ** |

**TABLE 4**

| | | | |
|---|---|---|---|
| Mean dependent var | −0.095556 | S.D. dependent var | 0.260294 |
| Sum squared resid | 0.237030 | S.E. of regression | 0.184015 |
| R-squared | **0.562694** | Adjusted R-squared | **0.500221** |
| F(1, 7) | **9.007080** | P-value(F) | **0.019909** |
| Log-likelihood | 3.595125 | Akaike criterion | −3.190251 |
| Schwarz criterion | −2.795802 | Hannan-Quinn | −4.041471 |
| rho | 0.046369 | Durbin-Watson | **1.814353** |
| Heteroskedasticity Test: White's test with p-value = **0.556598** | | | |

** Significant at 5%. (Source: Compiled by researcher)

**Interpretation:** The above tables show that there are two variables, namely, return on asset (ROA) and NPA. The dependant variable is return on asset and NPA is independent variable. Here NPA is measured as the ratio of net NPA to net advances. The model is ROA = a + b.NPA + e.

In this model, P-Value for beta coefficient of return on asset is 0.0199 which is significant at 5% significance level. So, the null hypothesis is rejected and the alternative hypothesis is accepted. So, it can be concluded that there is a relation between ROA and NPA. Here, the value of F is 9.007080 which is also significant at 5% significance level. The value of R squire is 0.562694 which indicates that the model is a good fit and there is a high correlation between ROA and NPA. But the negative sign of the regression coefficient indicates that there is an inverse relationship between these two variables. The adjusted R square value is 0.500221 which implies that NPA can explain around 50% of the variance in ROA. It is also notable that there is no problem of auto-correlation in the time series data used for the study, as the values obtained by Durbin-Watson test is around one (1.814353). White's test has been done for checking heteroskedasticity. The test result (P- 0.556598) shows that there is no heteroskedasticity in the data set. From the above interpretations, finally, it can be concluded that NPA has a negative impact on return on asset of SBI.

**Hypothesis Testing - 3**

$H_o3$: There is no relationship between non-performing asset and return on equity of SBI

Regression model: ROE= a + b.NPA+ e (IV is NPA & DV is ROE)

Model 3: OLS, using observations 2011-2019 (T = 9)

Dependent variable: d_ROE

**TABLE 5**

| | *Coefficient* | *Std. Error* | *t-ratio* | *p-value* | |
|---|---|---|---|---|---|
| const | −1.11973 | 0.987080 | −1.134 | 0.2940 | |
| d_NPA | **−2.69959** | 0.767385 | −3.518 | **0.0098** | *** |

**TABLE 6**

| | | | |
|---|---|---|---|
| Mean dependent var | −1.506667 | S.D. dependent var | 4.579776 |
| Sum squared resid | 60.62046 | S.E. of regression | 2.942799 |
| R-squared | **0.638723** | Adjusted R-squared | **0.587112** |
| F(1, 7) | **12.37570** | P-value(F) | **0.009755** |
| Log-likelihood | −21.35378 | Akaike criterion | 46.70756 |
| Schwarz criterion | 47.10201 | Hannan-Quinn | 45.85634 |
| rho | 0.119424 | Durbin-Watson | **1.711036** |
| Heteroskedasticity Test: White's test with p-value = **0.137560** | | | |

** Significant at 1%. (Source: Compiled by researcher)

**Interpretation:** The above tables show that there are two variables, namely, return on equity (ROE) and NPA. The dependant variable is return on equity and NPA is independent variable. Here NPA is measured as the ratio of net NPA to net advances. The model is ROE = a + b.NPA + e.

In this model, P-Value for beta coefficient of return on equity is 0.0098 which is significant at 1% significance level. So, the null hypothesis is rejected and the alternative hypothesis is accepted. So, it can be concluded that there is a relation between ROE and NPA. Here, the value of F is 12.37570 which is also significant at 1% significance level. The value of R squire is 0.638723 which indicates that the model is a good fit and there is a high correlation between ROE and NPA. But the negative sign of the regression coefficient indicates that there is an inverse relationship between these two variables. The adjusted R square value is 0.587112 which implies that NPA can explain around 58% of the variance in ROE. It is also notable that there is no problem of auto-correlation in the time series data used for the study, as the values obtained by Durbin-Watson test is around one (1.711036). White's test has been done for checking heteroskedasticity. The test result (P- 0.137560) shows that there is no heteroskedasticity in the data set. From the above interpretations, finally, it can be concluded that NPA has a negative impact on return on equity of SBI.

**TABLE 7: SUMMARY OF HYPOTHESIS TESTING AT A GLANCE**

| Null Hypothesis | P-Value | Decision |
|---|---|---|
| $H_o$1: There is no relationship between non-performing asset and net profit margin of SBI | 0.0114 | Reject |
| $H_o$2: There is no relationship between non-performing asset and return on assets of SBI | 0.0199 | Reject |
| $H_o$3: There is no relationship between non-performing asset and return on equity of SBI | 0.0098 | Reject |

## CONCLUSION

From above analysis and interpretations, it can be finally concluded that the growth of non-performing asset of SBI has an upward rising tendency except the very last year of 2018-19. The study also reveals that the NPA has an inverse relationship to profitability of SBI over the last ten years. In all the taken dimensions of profitability (net profit margin, return on asset and return on equity) measurement, it has been observed that the NPA has a negative effect on them. In order to minimize and control over NPA, SBI should formulate more strong recovery and preventive policy. SBI should form an efficient asset management wing, which will be exclusively responsible for managing non-performing and under performing loans to maximize the recovery value. The client assessment procedure should be stronger before lending loans rather than completion of technical paper procedures. The bank should be stricter in "Know Your Customer" norms for identification of borrowers, guarantor and verification of their address to minimize the risk of default in case of housing loans. In case of agricultural loans, a recovery camp should be organized during the harvest season. Continuous monitoring of the bank's borrowers is vital to understand the primary reason of corporate decline and to be able to identify the potential distress situation. It is essential to identify symbols of distress which reduce the borrowers' ability to repay loans. In this way, State bank of India could manage its NPA and maintain a better profitability in future.

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| Annual Reports of SBI | Date and time of access | Access link |
|---|---|---|
| 2009-10 | 12/5/2020 at 7:11 AM | https://sbi.co.in/documents/17826/35696/1275994607852_12_BALANCESHEET_SBI_GROUP.pdf |
| 2010-11 | 12/5/2020 at 7:13 AM | https://sbi.co.in/documents/17826/35696/1307544010161_13_2.pdf |
| 2011-12 | 27/3/2020 at 11:01 PM | https://sbi.co.in/documents/17826/35696/1339769825519_SBI_GROUP_FINANCIALS_AR12.pdf |
| 2012-13 | 12/5/2020 at 7:09 AM | https://sbi.co.in/documents/17826/35696/1373614553213_SBI_UNABRIDGED_ANNUAL_REPORT_2012_13_ENGLISH.pdf |
| 2013-14 | 12/5/2020 at 7:03 AM | https://www.sbi.co.in/AR_13-14/ |
| 2014-15 | 5/2/2020 at 5:44 PM | https://www.sbi.co.in/AR1415/ |
| 2015-16 | 5/2/2020 at 5:43 PM | https://bank.sbi/AR1516/ |
| 2016-17 | 5/2/2020 at 5:42 PM | https://sbi.co.in/AR1617/ |
| 2017-18 | 5/2/2020 at 5:41 PM | https://bank.sbi/AR1718/ |
| 2018-19 | 5/2/2020 at 5:40 PM | https://sbi.co.in/corporate/AR1819/ |

# A STUDY ON THE PROVISIONS OF NOTIONAL RENT IN INDIAN INCOME TAX

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## ABSTRACT

*This paper is a study on the applicability of the provisions of section 22 of income tax law, to analyse whether the exemption under the provision is applicable to the partner owner of the firm, i.e the individual whose property is occupied by the firm, in which he was a partner, and provide that premises at free of cost. The paper studies the provisions of section 22 of Indian Income Tax law, legal decisions in favour and opposing the decisions of allowing exemptions under above said section, and grounds of final judgement given by Kolkata court in Prodip Kumar Bothra v. CIT (2011) case in this regard.*

## KEYWORDS

exemption under section 22, owner – partner, deemed rent, notional rent.

## JEL CODE

H21

## INTRODUCTION

The provisions of Sec.22 of Income Tax Act,1961, provides that, annual value of property occupied by the assesse for his own business and such business income is chargeable to Income tax, then the annual value of that property held for own business shall be exempted from chargeability under Income tax law.

But in the present case, the question is that, whether the above exemption is applicable equally to the partner of a partnership firm who provides his own residential property at free of rent to the partnership firm in which he is a partner.

Lot of discussions were done in different legal case studies on the above question. Different decisions and different views were presented by different legal authorities. But at last in 2011, judgement given in Prodip Kumar Bothra Vs. Commissioner of Income-Tax, Kolkata Income Tax Appeal No. 742 Of 2004 (15-07-2011), it was held that Annual value of the property which was rented even at free of cost to the firm, by the individual who is also a partner in the firm, shall be taxable in the hands of that partner and no exemption U/s 22 is available to him.

The reasons behind the legal decisions of allowing the exemptions of that individual partner was quoted by Mr. Banerjee, who acted as Advocate on behalf of Revenue. And it is advisable to individual partner to receive rent for such property, from the partner firm, even though he is a partner in that firm. Provisions of Income tax law has allowed such rent as deduction for that firm, which is also a indirect financial benefit for the partner who is the owner of the Property occupied.

## REVIEW OF LITERATURE

Karnataka vs. K.N. Guruswamy, reported in (1983) 146 ITR 34: If the property or a portion of it, owned by an assessee, is occupied by him for the purpose of his own business or profession, or a property owned by a firm is used for its business, such assessee is entitled to exemption under section 22. In the view that we have taken, the contention urged for the Revenue should prevail, and the Tribunal's finding that the assessee is entitled to exemption under Section 22 should be rejected.

Commissioner of Income-tax vs. K.M. Jagannathan, reported in (1989) 180 ITR 191:…..the tribunal was right in the view it took for the purpose of sec 22. Of the Act, the business carried on by the firm should be regarded as being carried all the partners and therefore, no income from the property should be computed in respect of the portion of the property in respect of the portion under the occupation of the firm in the computation of the income from the property in the hands of the assessee – partner.

Commissioner of Income-tax vs. P.M. Thomas, reported in (1990) 181 ITR 256:…..the assessee is carrying on business in partnership the profits of which are chargeable to income tax. It cannot be stated that the assesseeis not occupying the building for the purpose of his business. The business is done in partnership, the other partners are occupying the ground floor along with the assessee and the partnership business is carried on by him along with all the partners. Therefore, we are of the view that the annual letting value of the ground floor of the building belonging to the assessee which is in occupation of a firm in which the assessee is a partner is not includable in the income of the assessee under section 22 of the Act and, consequently, the reopening of the assessment is not suitable.

Commissioner of Income-tax vs. Rabindranath Bhol, reported in (1995) 211 ITR 799 : in the case in hand, we are of the considered opinion that the literal construction put by Karnataka high court to sec 22 of Income tax act works out gross injustice and does not subserve the object of the legislation. In the aforesaid premises, we respectively differ with the views expressed by the Karnataka High court and agree with the conclusion and reasoning's adopted by the Gujarat High court, and hold that the income from a house property owned by the assessee-partner and used in the business carried on by the partnership firm in which the assessee is a partner would qualify for exemption provided in sec 22 of the income tax act 1961.

Prodip Kumar Bothra v. CIT (2011) 62 DTR (Cal) 47: …..after taking into consideration the overall position of a partnership firm in the light of the Income tax Act, 1961 we are of the view that the exemption under Section 22 of the Act in respect of a property not owned by the partnership firm cannot be availed of by an individual co-owner merely because he happens to be a partner of a firm in occupation of a part of the property.

## RESEARCH OBJECTIVES

1. To study the provisions of sec 22 of Indian Income Tax Act, 1961.
2. To study the applicability of exemption under sec. 22 of IT Act, 1961 to Partner – owner.
3. To suggest to the Partner – owner in case of non – applicability of sec. 22 of IT Act, 1961.

## RESEARCH METHODOLOGY

The present research study is a blend of secondary data and the major source of data was used from different websites of legal decisions, government portal of Income tax, website of business magazines etc. and it is a descriptive and exploratory research method which has been used to analyses the secondary data collected, in order to conclude whether the provisions of section 22 are applicable to owner partner of a firm.

## STUDY ON THE PROVISIONS OF SECTION 22, OF INDIAN INCOME TAX LAW, REGARDING ALLOWANCE OF EXEMPTION ON ANNUAL VALUE OF PROPERTY OF THE PARTNER, WHICH WAS OCCUPIED BY THE FIRM IN WHICH HE IS A PARTNER

As per section 22 of Income Tax Act, 1961, "The annual value of property consisting of any buildings or lands appurtenant thereto of which the assessee is the owner, other than such portions of such property as he may occupy for the purposes of any business or profession carried on by him the profits of which are chargeable to income-tax, shall be chargeable to income-tax under the head "Income from house property".

Here we have to have a look on some vital points, which are as follows;

1) What is taxable?
2) Who is charged to tax?
3) When it will be exempted?

Unlike charging section of other heads of income, the charging section of House property income provides the provisions for both taxability and exemption.

Two peculiar points what we can observe in the above charging section 22 of IT Act, 1961 are, firstly, the income charged to Taxability is Annual value of the property, but not the income or profit as per the provisions of charging sections of other heads of income.

And the second point was that, the owner of the property shall be charged to tax, even though he is not the actual receiver of the income, as provided in the charging section of the head, "Income from House property".

So, as discussed above, what is taxable is the Annual Value of the property after deductions allowed were adjusted. And who is charged to tax, is the owner of the property. The exemption which is available to the owner, only if he carries on business in his own premises, which profit is subject to income tax.

It is clear that exemption can be claimed by the assessee, if he occupies his property for his own business, so the annual value of such property occupied for his business purpose is not charged to tax.

But the key point under the study of the present paper is, the question raises the same exemption is available to the owner of the house property, if that house is occupied by the partnership firm, in which the owner one of the partners.

Legal provisions in favor of applicability of exemption to such owner – partner are,

As per the provisions of section 4 of Partnership act, 1932 - "Partnership" is the relation between persons who have agreed to share the profits of a business carried on by all or any of them acting for all. And also, with reference to provisions of Section 5 of Partnership Act, 1932- status of partner, the relation of partnership arises from contract and not from status;

By elaborating the above provisions of partnership act, it was clear that, a Partner ship firm is formed by a contract between two or more partners to carryon the same business. And it did not have any separate legal status or legal entity. So, partner and partnership firm both and same and not distinct persons.

As per the provisions of section 25, of Partnership act, 1932 - Every partner is liable jointly with all the other partners and also severally, for all acts of the firm done while he is a partner. And as per the provisions of section 26 of Partnership act, 1932,- Where, by the wrongful act or omission of a partner acting in the ordinary course of the business of a firm or with the authority of his partners, loss or injury is caused to any third party, or any penalty is incurred, the firm is liable therefor to the same extent as the partner.

According to the provisions of section 25 and 26 of the said partnership act, 1932 – Firm is liable for conduct of a partner and at the same time partner is also liable for the conduct of Firm. They both are liable for mis conduct of each other. And in the same way, it seems to be that, they both are not distinct persons. As they both are liable for the misconduct of any of them, either the firm or a partner, the exemption under section 22 cannot be disallowed by showing the partner and firm as distant persons.

The same was held in, Commissioner of Income-tax vs. Rabindranath Bhol, reported in (1995) - in the eye of law, a firm is compendious expression indicate that several persons constituting that firm are carrying on a business. But the compendious expression cannot give to the firm a legal entity or a legal existence.

And as per the provisions of section 28, of partnership act, 1932 - a partner is the agent of the firm for the purposes of the business of the firm.

It was also held in the same case, that – one partner is agent of the other in carrying out that business. Consequently, when a partnership carries on business, each partner therefor must be said to be carrying out that business.

One of the crucial characteristics of Partnership firm is "Unlimited liability", according to which a partner is personally liable for losses of a firm. So, as per just and equity, if the losses of firm have to be borne by individual partner, then the exemption of section 22 which is said to be allowed to partner in individual status only, should also be allowed to the partnership firm, in which he is a partner. And the unlimited liability characteristic also makes the sense that partner and firm are not distinct.

Legal decisions of court of law, against the applicability of exemption to such owner – partner are,

As per the judgement given in Prodip Kumar Bothra v. CIT (2011) case, a partner who is the owner of the property occupied by the firm, in which he was also a partner, exemption under section 22, of the Income Tax Act, 1961 is not allowed.

The following are the grounds under which above legal decision was given.

1) To get exemption under section 22, the property should be owned by the partnership firm, but not by the partner.
2) The owner and occupier must be same person.
3) To claim exemption, the property occupied by the owner for business, and such business profit shall be chargeable under the hands of that owner.

In the legal judgment of, Commissioner of Income-Tax, vs K.N. Guruswamy, the court has followed the decisions of Delhi court in Bhai Sunder Dass & Sons v. CIT and also the decision of Calcutta high court in, Sarvamangala Properties Ltd. v. CIT [1973] 90 ITR 267, that, "property owned by a firm has to be treated as property of the firm and liable to be taxed in respect of income from property in its assessment and not in the assessment of its partners.

Based on the above issues, raised by Mr. Banerjee, Advocate who argued on behalf of Revenue department, Court has issued the judgement, that, the exemption under section 22 of the act in respect of property not owned by the partnership firm cannot be availed, by an individual co-owner merely because he is the partner of the firm, which occupied for its business operations.

## A COMPARATIVE ANALYSIS OF PROVISIONS APPLICABLE BETWEEN AN INDIVIDUAL AND SAME INDIVIDUAL AS PARTNER IN A FIRM

**Case A**: - If an individual Mr. Z is Carrying his business in a portion of his house, and the business is chargeable to income tax, then the provisions of Section 22 of Income Tax Act, 1961 shall be applicable and Mr. Z will get exemption from taxability of Annual value of the property used for carrying his business.

And he shall not be eligible for claiming deduction under section 30, because charging rent for own property is a notional rent and such notional rent is disallowed for claiming deduction by Mr. Z.

**Case B**: - If the same individual Mr. Z is carrying his business in leased property, there is no question of Section 22 and he can deduct the amount of rent paid to the owner under section 30 of Income Tax Act, 1961.

**Case C**: - If the individual Mr. Z is a partner in a firm M/S XYZ, and Allowed a portion of his own house property to carryon business of same firm and not charging any amount of rent, then the annual value of that portion shall be taxable as "Deemed income" and he cannot claim exemption under section 22 of Income Tax, Act,1961 as per the judgement given in, Shri Prodip Kumar Bothra v. Commissioner of Income-Tax, Kolkata case.

Here in this case, Mr. Z will not get any rental income, but he shall be chargeable to house property tax as deemed income.

**Case D**: - If the individual Mr. Z, constitute a firm M/S XYZ in which he is a partner, and allowed a portion of his own property to carryon business of same firm but charged some amount of rent from the firm, then deduction of rent paid under section 30 shall be allowed to the firm and the annual value of the property shall be taxable under House property to Mr. Z as in above case.

Here both the firm and partner will get benefited and can avoid negative effect of the provisions of "deemed rent".

## ANALYSIS OF TAX SAVINGS UNDER SEC 22, AVAILABLE TO AN ASSESSEE IN INDIVIDUAL STATUS AND PARTNERSHIP STATUS

On comparing all the above four cases, A, B, C and D, the last one is beneficial to both the individual Mr. Z and the firm M/S XYZ. But when it will be beneficial to both. That means, at what amount of rent if Mr. Z charges from M/S XYZ, both will get benefited. It must be more than the annual value of the property but at what amount.

## RECOMMENDATION AND SOLUTION

***For a total income more than Rs. 10 lakhs after deduction of notional rent at an amount of more than Rs. 52100, per month, which is allowable as deduction to the firm, then the tax liability of the Partnership firm will be less than the tax liability of the individual owner partner.***

**Test check of above solution**

In case the individual Mr. Z carried on his business in his own premises in individual capacity: -

**TABLE 1**

| **Individual Assessee (Mr. Z)** | **Amount (Rs.)** | |
|---|---|---|
| Total Income Before deduction of notional rent | 15,00,000 | (More than Rs. 10,00,000) |
| **Less:-** Notional rent (not allowed as deduction) | **nil** | |
| Total income After deduction of notional rent | 15,00,0000 | |
| Tax liability of Individual Assessee Mr. Z | *2,62,500* | *Refer tax calculation, Table: - 2* |

**TABLE 2**

| ***Tax calculation;*** | Amount (Rs.) | |
|---|---|---|
| up to Rs. 2,50,000 nil | | |
| Rs. 2,50,000 to Rs. 5,00,000 tax at a rate of 5% | 12,500 | (5,00,000 – 2,50,000) X 5% |
| Rs. 5,00,000 to Rs. 10,00,000 tax at a rate of 20% | 1,00,000 | (10,00,000 – 5,00,000) X 20% |
| Above Rs. 10,00,000 tax will be at a rate of 30% | 1,50,000 | (15,00,000-5,00,000) X 30% |
| Total tax liability | *2,62,500* | |

In case the individual Mr. Z constituted a firm and carry on his business in his own premises charging rent for the premises:

**TABLE 3**

| **Assessee as a partnership firm (M/S XYZ)** | **Amount (Rs.)** | |
|---|---|---|
| Total Income Before deduction of notional rent | 15,00,000 | (More than Rs. 10,00,000) |
| **Less: -** Notional rent (allowed as deduction) | 6,36,000 | (monthly rent of Rs.53000 more than Rs.52100) |
| Total income After deduction of notional rent | 8,64,000 | |
| Tax liability of Individual Assessee Mr. Z | *2,59,200* | (30% of Rs. 8,64,000) |

So, here, tax liability of Firm Rs.2,59,200 is less than the tax liability of Individual assessee Rs.2,62,500.

So, it was proved that the suggestion of constituting a firm and leasing the property to that firm is beneficial to individual assessee and firm, rather than continuing the business as individual status.

## SUGGESTIONS

It is common in practice of partnership firm, providing some partner's premises as principal place of business, to reduce the rental expenditure to be paid it the same business operations were carried in any other building or it may block more capital in property, if any building was purchased.

Here, according to the layman knowledge, who thinks firm's business as his own business, in ignorance of law, the owner partner will not charge any rent for the building occupied by the firm to carry on its business operations. But as said in the above case law of, Prodip Kumar Bothra v. CIT (2011), the annual value of such rented property shall be charged to house property tax in the hands of that partner-owner as deemed income.

So, to avoid the negative effects of this deemed income provisions, we can adopt the provisions of section 30 of income tax act,1961, under the head " Profit or gains from business or profession". Which allows deductions of rent paid to the partner for occupying his premises for business operations. And such rent should be more than the annual value of the property.

It benefits to the firm for claiming deduction and get tax savings and for the partner owner, as he is getting rent amount, even though it is taxable under the head "House property"

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# A STUDY OF CUSTOMER BEHAVIOR TOWARDS TECHNOLOGY IN BANKING SECTOR: A STUDY ON DHARWAD CITY

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## ABSTRACT

*The modern world technology play important role in banking sector has enabled customer to take the banking services at anytime and anywhere in the form of ATM, Mobile banking and internet banking like as paytm, Google pay and phone pay etc. this has not only focused on baking service but also has reduced the transaction cost but also leads to high level of consumer satisfaction so now a day's Bankers must aware about customers' behaviour towards Electronic Banking Services. Technology in banking sector it is rapidly changes in internet banking system now a day's rely on innovation and technology provide customer needs and satisfaction electronic banking it is facelifts 24/7 service. But question arise about consumer perception and awareness to the update technology in banking service and how much beneficial to the customer in e-banking relating knowledge can readily be made available to consumer with the help of internet banking. Because there are several network oriented innovations for –banking like as green card, smart card,* Electronic Data Interchange, National Electronic Funds Transfer *and* Real Time Gross Settlement *etc. technology examines customer related factors risk, complexity and perceived. This paper aims the e-banking service almost preferred by customer's satisfaction towards banking service.*

## KEYWORDS

ATM, consumer behaviour and satisfaction, internet banking, mobile banking.

## JEL CODES

M30, O32, O33.

## INTRODUCTION

E – Banking is the one of the huge accomplishment of e- commerce this development is change in e-business environment and innovation. The present situation in every sector customer is 'king' it means that no sector can exist without consumer. Therefore, the number company are facing most difficult challenge to understanding and studying consumer behaviours. Especially when it come service sector such as banking sector the consumer behaviour analysis becomes more complex and difficult to understanding their requirements and satisfaction.

e- Banking is the one of the best instrument in banking sector. The development of technology and internet has facilitated the emergence of e-banking. E-banking it provide opportunities for banks to increase the speed and efficient control in their service to customers at any time (24/7, 365 days).

## LITERATURE REVIEW

**Dr. Vannirajan & B. Anbazagan (2007)** The study tries to make an assessment of SERVPERF scale in the Indian Retail banking sector by doing a survey in banks at Madhurai. The study found that in public sector banks tangibles and assurance are most important and in private sector banks reliability, responsiveness and tangibles are most important.

**P K Gupta (2008**) Objective of this study was to find out the behavior of customers with respect to internet banking vis-à-vis conventional banking. The study found out that internet banking was found to be easier and speedier than conventional banking and trust, accuracy and confidentiality were the most important factors here.

**Ellaine Wallce & Leslie De Cheratatony (2009**) Study finds out the importance of assurance and reliability, customer orientation teamwork etc. in performance of. Also the study highlights criticality of branch& employee teamwork for performance. Continuous commitment and service recovery were also found important

**Mohammed Siddique Khan, Siba Sankar Mahapatra (2009)** The study was to identify important parameters affecting service quality in internet banking. Factor analysis of the data collected finds 7 factors which included factors like reliability, access, user friendliness privacy etc. Correlation analysis shows that a significant positive correlation exists between factors. Also it was found out that business class differs from other classes in perception

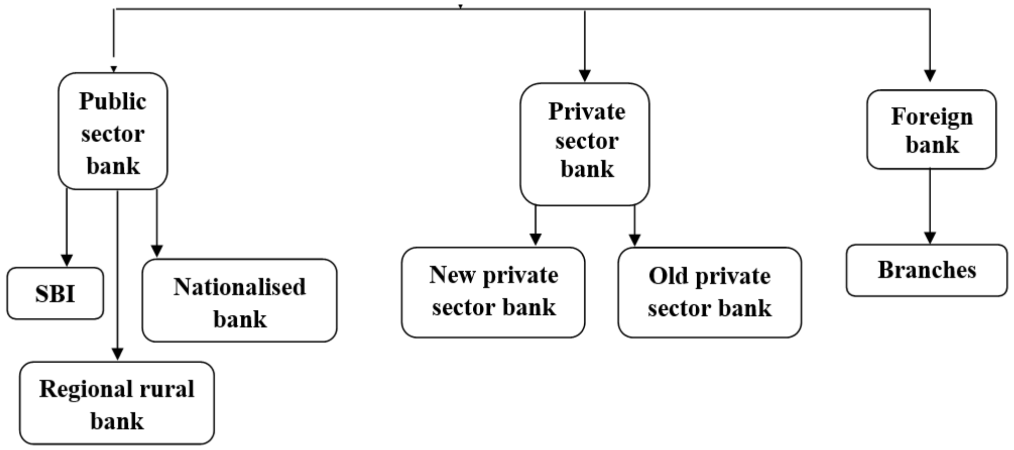
**Padhy P K and B N Swar (2009)** the paper investigated role of technology in banking and its impact on perceived service quality in public, private and foreign banks in Orissa using a s ample size of 300 customers. Foreign bank was found to be very close to expectations of customers followed by ICICI and AXIS. Service quality in public sector banks was found to be very low

**Rod et al (2009)** The study focused on relationship between service quality, overall internet banking service quality and customer satisfaction in New Zealand. The study found out that online customer service quality and online information systems were significantly and positively related to overall customer internet banking service quality. Overall internet banking service quality and customer satisfaction were positively correlated

**Akiko Ueno (2010)** The paper talks about the importance of quality. The study finds out the features that are fundamental in supporting service quality. The secondary research finds out the human resource functions like recruitment, teamwork etc. in maintain service quality.

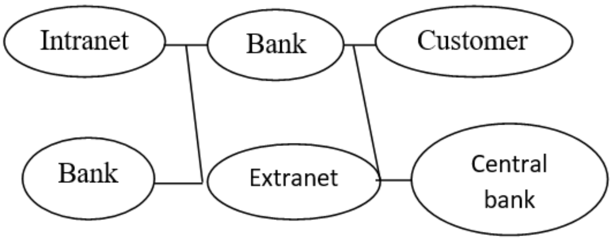
### BANKING STRUCTURES IN INDIA

**CHART 1: BANKING STRUCTURES IN INDIA**




### MODEL OF E-BANKING

**CHART 2**




### IMPORTANCE OF THE STUDY

1. It provides how much understand and uses of e-technology
2. Taking advantage of integrated banking services, banks may compete in new markets can get new technology and grow their market issue.
3. It provides some security and privacy to customers, by using and security technologies.

### OBJECTIVES OF THE STUDY

1. To study the consumer's demographic profile.
2. To identify the consumer awareness on e-banking
3. To evaluate the attitude of consumers towards m-banking
4. To understand the concept of e-banking and its importance.
5. To identify the e-banking benefits and problems from consumer point of view.
6. To examine the impact of e-banking products on the behaviour and satisfaction of consumers.

### RESEARCH METHODOLOGY

Researcher have used structured questionnaire and a five point balanced likert scale for measuring consumer attitude towards technology in banking sector. Primary data was collected from respondents of Dharwad city through a questionnaire designed for a sample of 200 respondents by using the survey method. Random sampling method was adopted by the researcher and selected the samples. The data collected from the respondents are coded, tabulated and percentage analysed.

Secondary data was collected from the available literature, journals and web search wherever necessary. The Questionnaire method was chosen for its versatility speed and cost benefits. Due to shortage of time the researcher has used only descriptive statistical and percentage to arrive at findings and conclusions.

**PICTURE 1**

## DATA ANALYSIS AND INTERPRETATION

**TABLE 1: GENDER OF RESPONDENTS**

| Gender | Male | Female |
|---|---|---|
| Frequency | 75 | 125 |
| Percent | 37.5 | 62.5 |

**TABLE 2; AGE OF RESPONDENTS**

| Age | Below 18 | 18-30 | 30-50 | Above 50 |
|---|---|---|---|---|
| Frequency | 20 | 130 | 35 | 15 |
| Percent | 10 | 65 | 17.5 | 7.5 |

**TABLE 3: EDUCATIONAL LEVEL**

| Educational Level | 12th standard and below | Graduation or equivalent | Post-graduation or equivalent | Other |
|---|---|---|---|---|
| Frequency | 27 | 85 | 50 | 38 |
| Percent | 13.5 | 42.5 | 25 | 19 |

**TABLE 4: MONTHLY INCOME**

| Monthly Income | Up to 50000 | 50001 to 100000 | 100001 to150000 | Above 150000 |
|---|---|---|---|---|
| Frequency | 70 | 65 | 37 | 28 |
| Percent | 35 | 32.5 | 18.5 | 14 |

**TABLE 5: NATIONALITY**

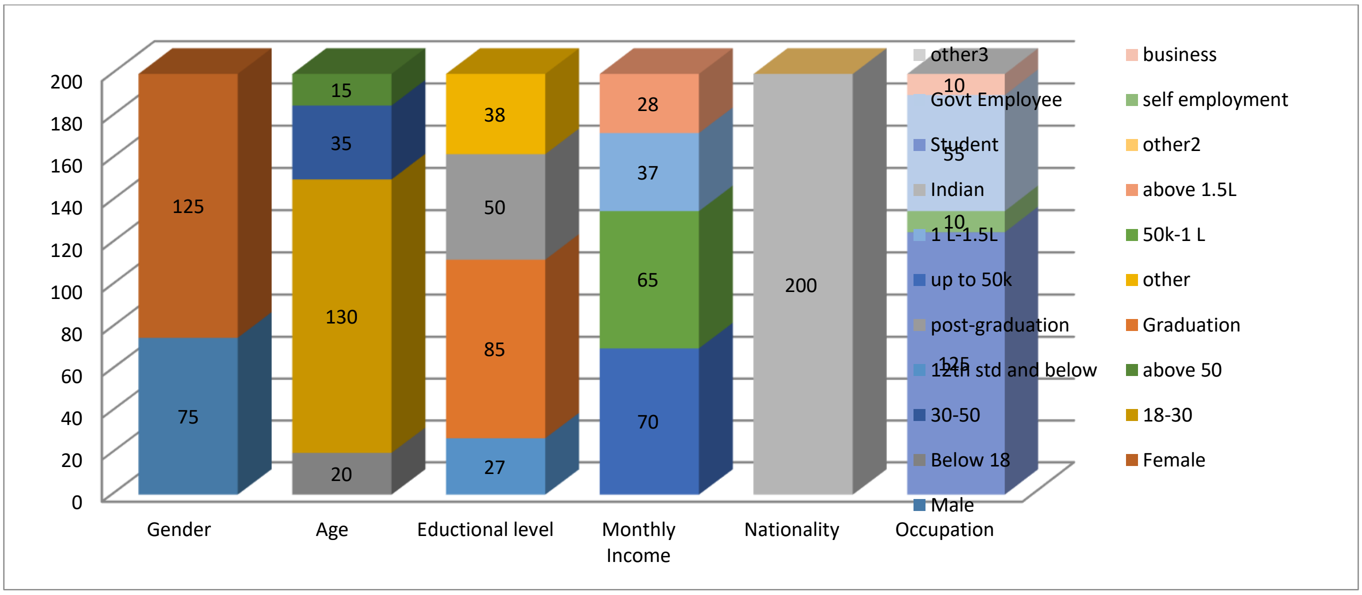
| Nationality | Indian | Other |
|---|---|---|
| Frequency | 200 | 00 |
| percent | 100 | |

**TABLE 6: OCCUPATION**

| Occupation | Student | Self-employment | Govt employee | Business | Other |
|---|---|---|---|---|---|
| Frequency | 125 | 10 | 55 | 10 | 00 |
| percent | 62.5 | 5 | 27.5 | 5 | 00 |

**CONSUMER'S DEMOGRAPHIC PROFILE**

**CHART 2**




Source: Table 1 to 6

The above table shows demographic profile total respondent were 200 by which most of the respondents are female 125, in this survey all age grouped are response out of this the majorities are age between 18-30, respondents are having complete graduation, all respondent are Indian and number of respondent are occupation student and Govt employee

**TABLE 7: WHAT DO YOU KNOW ABOUT E-BANKING**

| Awareness | Significant | Little bit | Not at all |
|---|---|---|---|
| Frequency | 169 | 31 | 00 |
| percent | 84.5 | 15.5 | 00 |

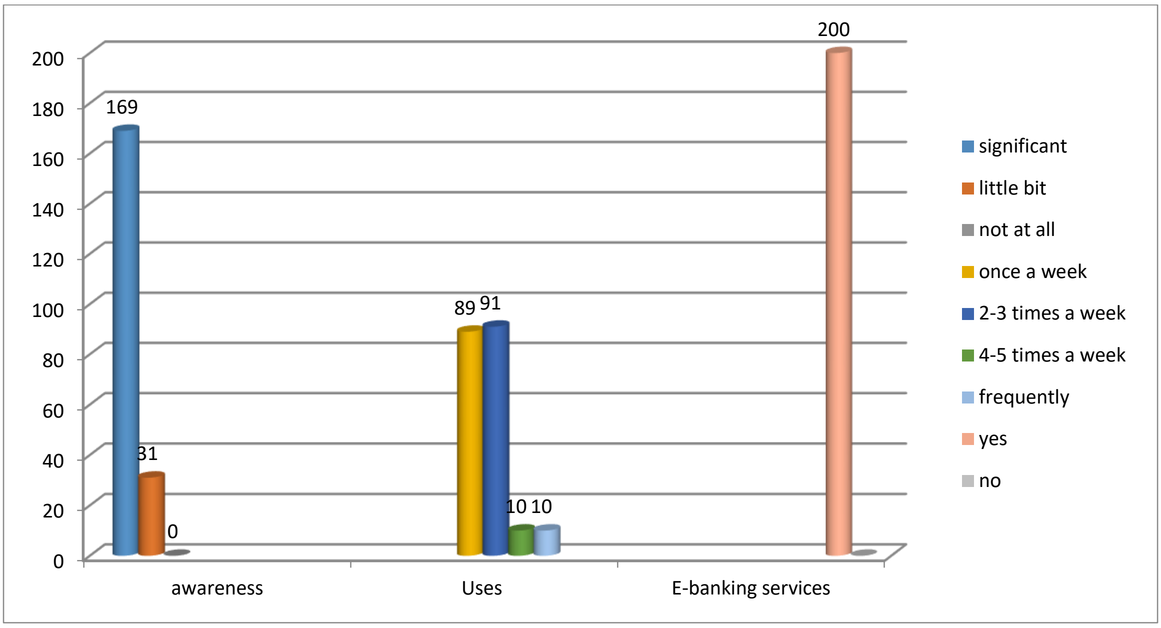
**TABLE 8: FREQUENCY OF USE OF E-BANKING SERVICES**

| Uses | Once a week | 2-3 times a week | 4-5 times a week | Frequently |
|---|---|---|---|---|
| Frequency | 89 | 91 | 10 | 10 |
| percent | 44.5 | 45.5 | 5 | 5 |

**Table 9: USE ANY E-BANKING SERVICES**

| e- banking services | Yes | No |
|---|---|---|
| Frequency | 200 | 00 |
| percent | 100 | 00 |

CHART 3




Source: Table 7 to 9

The above table shows that most of the respondents are aware and using the e-banking system and respondents are frequently using e-banking concepts. And also all responds are having and using e –banking examples are ATM, M-banking and Paytm etc.

**TABLE 10: REASONS THAT CUSTOMERS HAVE NOT OPENED AN E-BANK ACCOUNT**

| Reasons | Under age | Never heard e-banking | Concerned about security | Have not taken time to open an account | I prefer to have personal human relation |
|---|---|---|---|---|---|
| Frequency | 00 | 00 | 80 | 70 | 50 |
| Percent | 0 | 0 | 40 | 35 | 25 |

**TABLE 11: HOW LONG HAVE YOU BEEN USING THE E-BANKING SERVICES**

| Duration | Less than 1 month | 1 month – less than 1 year | 1 year- less than 2 year | 2 year or more |
|---|---|---|---|---|
| Frequency | 00 | 00 | 35 | 165 |
| Percent | 00 | 00 | 17.5 | 82.5 |

**TABLE 12: WHERE DO YOU USUALLY ACCESS THE INTEREST FROM**

| Access | Home | Work place | College | Cyber café | Other |
|---|---|---|---|---|---|
| Frequency | 30 | 60 | 40 | 05 | 65 |
| Percent | 15 | 30 | 20 | 2.5 | 32.5 |

**TABLE 13: WHICH ELECTRONIC FEATURE DO YOU USE REGULARLY**

| Feature | Pay bills | Make an A/c inquiry | Wire transfer | Transfer funds between A/c | Process patrol | Order cheque book |
|---|---|---|---|---|---|---|
| Frequency | 42 | 82 | 26 | 16 | 20 | 14 |
| Percent | 21 | 41 | 13 | 8 | 10 | 7 |

**TABLE 14: HAVE YOU HAD DIFFICULTY LOGGING INTO THE BANKS WEBSITE**

| Logging | All the time | Some times | Not at all |
|---|---|---|---|
| Frequency | 30 | 150 | 20 |
| Percent | 15 | 75 | 10 |

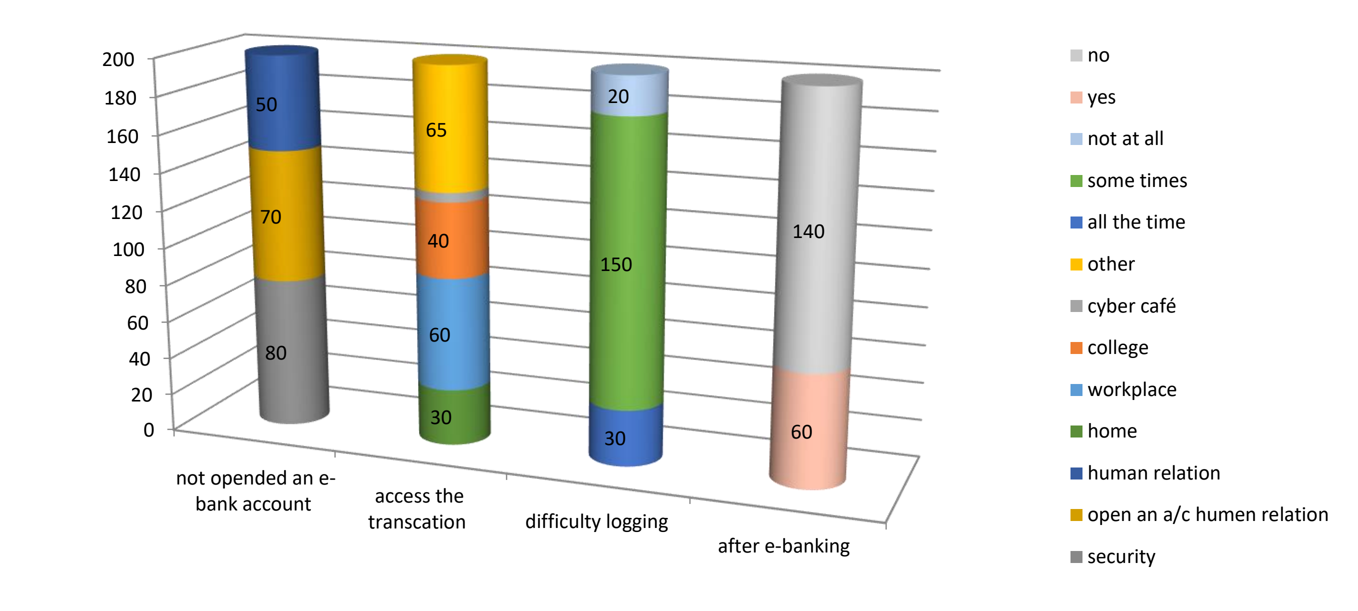
**TABLE 15: DO YOU ALSO HAVE A TRADITIONAL BANK A/C**

| Traditional bank | Yes | No |
|---|---|---|
| Frequency | 35 | 165 |
| Percent | 17.5 | 82.5 |

**TABLE 16: DO YOU STILL VISIT THE BANK BRANCHES SINCE YOU STARTED USING E-BANKING SERVICES**

| Branches | Yes | No |
|---|---|---|
| Frequency | 40 | 160 |
| Percent | 20 | 80 |

CHART 4




Source Above table

The above tables show that the total respondents were 200 by which 80& 70 respondents are agree to security and it's taken more time respectively so reason of that consumer not open e-banking. And numbers of respondents are access internet transaction at work place and college. And numbers of respondents is faces difficult logging into the bank account in sometimes and also after installing e-banking majority of responds are not visit to bank

**TABLE 17: WHAT ARE THE REASONS THAT YOU TYPICALLY VISIT YOUR BANK BRANCH**

| | Frequency | percent |
|---|---|---|
| To deposits cash | **60** | 30 |
| To withdraw cash | **40** | 20 |
| To get advice for investment option | **10** | 5 |
| To pay taxes | **00** | 0 |
| To raise a loan | **35** | 17.5 |
| To operate PPF | **00** | 0 |
| To take out a DD | **55** | 27.5 |
| To operate a locker | **00** | 00 |

**TABLE 18: WHAT ARE YOUR REASONS FOR CHOOSING E-BANKING SERVICES**

| Benefits | Conveniences | Time saving | Safety | 24 hours access to account | Reliability | User friendly |
|---|---|---|---|---|---|---|
| **Frequency** | **25** | **80** | **00** | **60** | **00** | **35** |
| **Percent** | 12.5 | 40 | 0 | 30 | 0 | 17.5 |

**TABLE 19: IN USING OF E-BANKING SERVICES HAVE YOU FACED DATA QUALITY ISSUES**

| Quality | Accuracy | Completeness | Update status | Reliability | Relevance | Easy access |
|---|---|---|---|---|---|---|
| **Frequency** | **14** | **25** | **51** | **40** | **15** | **55** |
| **Percent** | 7 | 12.5 | 25.5 | 20 | 7.5 | 27.5 |

**TABLE 20: OVERALL HOW SATISFIED YOU WITH E-BANKING**

| Satisfied | Very satisfied | Satisfied | Neutral | Dissatisfied | Very dissatisfied |
|---|---|---|---|---|---|
| **Frequency** | **151** | **49** | **00** | **00** | **00** |
| **Percent** | 75.5 | 24.5 | 0 | 0 | 0 |

**TABLE 21: DO YOU THINK HUMAN CONTACT IS IMPORTANT FOR BANKING**

| Significant | Completely | Sometimes | Unsure | Not at all |
|---|---|---|---|---|
| **Frequency** | **12** | **141** | **40** | **07** |
| **Percent** | 6 | 70.5 | 20 | 3.5 |

**TABLE 22: WHAT WOULD ENCOURAGE YOU TO USE MORE THE E-BANKING SERVICES**

| | Rewards | Simples procedure | Higher security | Lower transaction |
|---|---|---|---|---|
| **Frequency** | **23** | **159** | **15** | **03** |
| **Percent** | 11.5 | 79.5 | 7.5 | 1.5 |

**TABLE 23: PLEASE RANK THE E-BANKING SERVICES IN ORDER OF BEING USER FRIENDLY**

| Rank | Telephone banking | M-banking | ATM |
|---|---|---|---|
| **Frequency** | **65** | **60** | **75** |
| **Percent** | 32.5 | 30 | 37.5 |

**TABLE 24: QUALITY OF SERVICES IN E-BANKING**

| Quality | Excellent | Very good | Good | Averages | Poor |
|---|---|---|---|---|---|
| **Frequency** | **72** | **50** | **42** | **25** | **11** |
| **Percent** | 36 | 25 | 21 | 12.5 | 5.5 |

## FINDINGS

- Majority (42.5%) of the consumer's have educated.
- Consumer have expressed strongly about the concepts of E-banking.
- ✓ Majority (84.5%) of the respondents knowing about E-banking.
- ✓ People are using and knowledge about e-banking and benefits of M & E-banking system.
- ✓ From the results we can conclude that the frequency2-3 times a week of use of e –banking.
- ✓ From the above result s concerned about security and they are preferring to human relation so respondents have not opened an electronic bank account.
- ✓ Respondents state that usually30% access the internet from in workplace and also college.
- ✓ Consumer's attitudes towards technology in E-banking.
- ✓ Most of the consumers for choosing e-banking services because of time saving and 24/7 hours' access to account.
- ✓ Majority of respondent's reason for visit to bank to deposits Cash, to withdrawal cash and to take out a DD with respect of 30%, 20% and 27.5% respectively.
- ✓ From results above people agree easy access and update status of using of E–banking services they have faced data quality issues.
- ✓ Majority (75.5%) respondents are very satisfied with e-banking services.
- ✓ Respondents are think human contact important for banking relation.
- ✓ Number of respondent are agreeing to the quality of services in e-banking.

## SUGGESTION

According to survey improve the e-mode system and avoided error and improver surveyor. Some of the ATM and others devises not working properly so improver that and update.

## CONCLUSION

The banking sector has update many changes the new economic policy based on privatization, globalization and liberalizations 1991 adopted by government of India. Customer is the king in the modern days banking. Today the customer services preference keeps on changing at a rapid speed and their demands. For the banking sector challenging and tough job for security and convince to customer. The aim of the bankers is to make the customers satisfied and happy to achieve their targets. Today number of banks is there and each bank follow different procedure it is very difficult to follow the customers. Even though the consumer is well educated some time high technology banking services difficult to the customer for the transaction. For the effective banking transaction, the banks should have well communication, soft skill must require. Universal banking procedure can help the customer for the better truncation and customer comfort and satisfied.

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# IMPACT OF PANDEMIC INDUCED LOCKDOWN ON STOCK MARKET PERFORMANCE WITH SPECIAL REFERENCE TO INDIAN EQUITY MARKET

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## ABSTRACT

*The paper attempts to understand the impact of Pandemic induced lockdown on stock market performance pre and during the lockdown period with special reference to Indian equity market. The following observations were made from the findings of the study. Pandemic induced lockdown seems to have a temporary or short term impact of the stock market performance. Due to lower than the expected earnings coupled with fear of possible economic slowdown, overall sentiment of the market remained negative during the 1st, 2nd and 3rd phase of lockdown. However, the market seemed to have recovered from the pandemic shock during the 4th phase of the lookdown. During pre-lockdown period the Sensex was found to be trading at higher valuations. On the other hand, during lockdown period the market swing from expensive to cheap. However, this trend could not sustain for the longer period as it was observed that during the 4th phase of the lockdown the market was found to be rebounding and market swing from cheap to expensive again. In terms of volatility the market was found to be more volatile during the lockdown period due to negative sentiments towards the equity market. Increase in the foreign portfolio investment coupled with government measures to strengthen the economy boosted the investors' confidence in equity market during the 4th phase of the lockdown.*

## KEYWORDS

COVID-19, FPI, lockdown, market-cap-to-GDP ratio, pandemic, P/E ratio, sensex, volatility index.

## JEL CODES

H24, K34.

## INTRODUCTION

During December of 2019, the world became aware of new global-scale threat called at first as corona virus, which changed the lives of millions of people around the globe. The corona virus has multiple impacts regarding public polices, economic production, and population dynamics at macro and micro scale levels across countries, the magnitude of these changes remains unknown since the Corona virus (now called Covid-19) strikes pretty fast at almost every nation of the world (directly or indirectly). [Sheif M. Hassan et.al 2020, (*Submitted for the consideration of EEA Covid-19 project networking. This paper is a part of M&S Research Hub Institute's research project (Covid19 and global Economy)*)]. In early and mid-January 2020, the virus started to spread to other Chinese provinces, supported by a huge movement of people towards their hometowns to celebrate Chinese New Year which turned the outbreak into a national crisis. Although Wuhan official announced a complete travel ban in terms of its residents of January 23, the virus still spared quickly. The WHO declared a global emergency due to the rapidly spreading of COVID-19 on January 30, 2019. It's only the sixth time that such type of global emergency has been announced, with past examples including that of the Democratic Republic of Congo Ebola outbreak and the Zika Virus. Chinese scientists linked this disease to a virus family known as corona viruses, which included both the severe acute respiratory syndrome (SARA) virus and the Middle East respiratory syndrome (MERS). (HaiYue Liu et.al Feb 2020). Indian government confirmed first case of COVID-19 on January 30 2020 in Kerala. Following the increase in the number of cases of corona virus in India the prime minister of India on 19th mach 2020 asked all citizens to observe ' Janata Curfew' on 22nd march 2020. Following this event the PM Modi on 24 March announced 21 day lockdown throughout the country. Prime Minister Modi emphasized that the only solution to control the spreading of COVID-19 is to break the chain and practice social distancing.

Ever since COVID-19 strike, markets loom under fear as uncertainty prevails. It has sent markets around the world crashing to levels not witnessed since the Global Financial Crisis of 2008. Following the strong correlation with the trends and indices of the global markets as BSE Sensex and Nifty 50 fell by 38%. The total market cap lost a staggering 27.31% from the start of the year. The stock market has reflected the sentiments this pandemic unleashed upon investors, foreign and domestic alike. Companies have scaled back layoffs have multiplied and employee compensations have been affected resulting in negligible growth in the last couple of months. Certain sectors such as hospitality, tourism and entertainment have been impacted adversely and stock of such companies have plummeted by more than 40% [S Ravi May 2020 *(Impact of COVID-19 on Indian Stock Markets, BW Business World, http://www.businessworld.in/ Accessed on 18 June 2020.)*]

## LITERATURE REVIEW

1. **Sehgal, Sanjay & Tripathi, Vanita (2007):** examined if there is value effect in Indian stock market. The study also attempts to identify important sources that cause it. The study found statistically significant value effect using alternative measures such as book to market equity (BE/ME), earnings to price (E/P), cash flows to price (C/P) and dividends to price (D/P). Value effect is found to be significant on unadjusted as well as risk-adjusted return basis. Trading strategy based on value effect is found to be economically feasible.
2. **Sehgal. S and Pandey. A (2010):** The paper attempts to evaluate the equity valuation in India using Price multiples. The samples of study covers 13 prominent sector and data are taken from 145 large companies that satisfy their screening criteria for the period from 1999 to 2007. The findings of the study reveal that "Price-to-earnings provide the best price forecast compared to the other three multiples, price-to-book value, price-to-cash flow and price to sales. Finally, authors recommend that the historical price to earnings (P/E) is the best price multiples for developing price forecast in the Indian environment.
3. **Paramati, Sudharshan Reddy & Gupta, Rakesh (2011):** found that there is a bidirectional relationship between IIP and stock prices (BSE and NSE) and quarterly results reveal that there is no relationship between the GDP and BSE but in case of NSE and GDP there is a unidirectional relationship and that runs from GDP to NSE. The study also confirms that there is a long-run relationship between the stock market performance and the economic growth. Finally, the results of error correction model revel that when the long-run equilibrium deviates then the economic growth adjusts to restore equilibrium by rectifying the disequilibrium.
4. **Masoud, Najeb (2013):** Concludes that there is a positive relationship between efficient stock markets and economic growth, both in short run and long run and there is evidence of an indirect transmission mechanism through the effect of stock market development on investment. They are seen as providing a service that boosts economic growth. The results are consistent with the theoretical and empirical predictions.
5. **Yadav. S (2017):** In his paper, stock market volatility – A study of Indian stock market concludes that "in general over that reference period the bull phase is longer, the amplitude of bull phase is higher and the volatility in bull phase is also higher. The gains during expansions are larger than the losses during the bear phases of the stock market cycles. The bull phase in comparison with its pre liberalization character is more stable in the post liberalization phase. The results of his study show that the stock market cycles have dampened in the recent past. Volatility has declined in the post liberalization phase for both the bull and bear phase of the stock market cycle"

6. **HaiYue Liu et.al (2020):** found that countries in Asia experienced more negative abnormal returns as compared to other countries. Further panel fixed effect regressions also support the adverse effect of COVID-19 confirmed cases on stock indices abnormal returns through an effective channel by adding up investors' pessimistic sentiment on future returns and fears of uncertainties.
7. **Hakan Yilmazkuday (2020):** found that having 1% on an increase in cumulative daily COVID-19 cases in the U.S results in about 0.01% of cumulative reduction in the S&P 500 index after one day and about 0.03% of reduction after one month. Historical decomposition of the S&P 500 Index further suggests that the negative effects of COVID-19 cases in the U.S on the S&P 500 Index have been mostly observed during March 2020.
8. **Gormsen, Niels Joachim and Koije, Ralph S.** J (2020): the study shows how the actual forecast and the bound evolve over time. As of June 8, the researcher stated that their forecast of annual growth in dividends is down 9% in the US and 14% in the EU compares to January 1, and forecast of GDP growth is down by 2.0% in the US and 3.1% in the EU. The lower bound on the change in expected dividends is -18% in the US and -25% in the EU at the 2 –year horizon. Finally, the News about fiscal stimulus around March 24 boosts the stock market and long-term growth but did little to increase short-term growth expectations. Expected dividend growth has improved since April in both the US and the EU.
9. **Enrico Onali (2020):** found that changes in the number of cases and details in the US and six other countries majorly affected by the COVID-19 crisis do not have an impact on the US stock market returns, apart from the number of reported cases for china. However, there is evidence of a positive impact, for some countries, on the conditional hetroscedasticity of the Dow Jones and S&P 500 returns. VAR models suggest that the number of reported deaths in Italy and France have a negative impact on stock market returns, and a positive impact on the VIX returns.
10. **Sivakumari, S & Sudhakar, Suraj & K P, Nitha (2020):** the paper shows the predictive power and valuation accuracy of P/E Model, P/B model and CAPM to know the significance and reliability of the models for Sensex stocks in Indian Stock Market. The study selected a sample of 30 companies which constitutes the BSE sensitive index (Sensex). There are high levels of valuation errors for stocks in India using P/E model and P/B Model. But the valuation accuracy of capital asset pricing model was at high level and can be used for predicting the intrinsic value of Sensex stocks in Indian stock market.

After reviewing the above studies, it is evident that no specific study is undertaken to examine the impact of pandemic induced lockdown on the stocks markets in Indian context. In view of this the present study makes an attempt to study the impact of lockdown due to covid-19 pandemic on the stock market with special reference to equity market in India.

## OBJECTIVES OF THE STUDY

The following objectives are set for the present study:

1. To understand the stock market performance in terms of Risk and Return.
2. To understand the valuation of stock market during the study period.
3. To know the amount of foreign portfolio investment in equity market during the study period.

## METHODOLOGY

The present study aims to examine the Impact of pandemic induced lockdown on the stock market performance in India. In order to achieve the stated objective, the following method is employed.

Firstly, in order to have comprehensive understanding of the impact of lockdown on the BSE-Sensex the researcher has attempted to study the performance of 30 share index pre and during the lockdown period. For this study the period starting from November-2019 to February 2020 is taken as pre-lockdown period and a period starting from March 2020 to June 2020 is lockdown period.

Secondly, BSE-Sensex is taken as proxy for the stock market performance in India the performance of BSE-Sensex is read in terms of Risk, Return, Valuation, and foreign portfolio investment in equity markets. Risk is measured using S&P BSE Sensex 3-month Realized volatility index. **"**The S&P BSE Sensex 3-Month Realized Volatility index is the first of its kind in India. It provides market participants with accurate measures of the historic volatility of the S&P BSE Sensex over a three-month time horizon. It is synchronized with BSE's three-month futures and options contract expiration cycles and is reset every three months.**"** The monthly data relating to the 3-Month Realized Volatility index is collected and the average value of the same is taken to understand the level of risk or volatility of the stock market. Market returns are calculated by dividing the closing price of the present month by the previous month and deducting one from the result. Price-to-earnings ratio and market-cap-to-GDP ratio is used to measure stock market valuation.

The following table depicts the different bands for understanding the market valuations using Market-cap-to-GDP ratio as measure of market valuation.

**TABLE 1**

| Ratio = Total market Cap/GDP | Valuation |
|---|---|
| Ratio ≤50% | Significantly Undervalued |
| 50% < Ratio≤ 65% | Modestly Undervalued |
| 65%< Ratio≤79% | Fair Valued |
| 79% < Ratio≤93% | Modestly Overvalued |

Source: www.gurufoucs.com

### SOURCES OF INFORMATION

The data collected for the study is secondary in nature. The data relating to the S&P BSE Sensex 3-month Realized volatility index, Market return, Price-to-earnings ratio is sourced from the official website of the Bombay Stock Exchange. Data relating to the market-cap-to GDP is collected from the website guru focus. Finally, the data on foreign portfolio investment in the equity market in India is taken from the official website of the National Securities Depository Limited (NSDL).

### STRUCTURE OF THE STUDY

The present paper is organized into four sections. The first section deals with the introduction. The second section consists of literature reviews, objectives, methodology, and sources of information. Results and analysis are the subject matter of third section. Findings, limitations and conclusion were offered in the last and final section.

## RESULTS AND ANALYSIS

**TABLE 2: SENSEX MONTHLY RETURNS PRE AND DURING THE LOCKDOWN**

| Pre-Lockdown period | High | Low | Close | Return (%) | Lockdown Period | High | Low | Close | Return (%) |
|---|---|---|---|---|---|---|---|---|---|
| Nov-19 | 41163.79 | 40014.23 | 40793.81 | 1.66 | Mar-20 | 39083.17 | 25638.90 | 29468.49 | -22.85 |
| Dec-19 | 41809.96 | 40135.37 | 41253.74 | 1.13 | April-20 | 33887.25 | 27500.79 | 33717.62 | 14.42 |
| Jan-20 | 42273.87 | 40476.55 | 40723.49 | -1.27 | May-20 | 32845.48 | 29968.45 | 32424.10 | -3.74 |
| Feb-20 | 41709.30 | 38219.97 | 38297.29 | -5.93 | June-20 | 35706.55 | 32348.10 | 34915.80 | 7 |
| **Average** | | | **40267.08** | **-1.10** | **Average** | | | **32631.50** | **-1.29** |

Source: Complied and calculated

Table 2 depicts the performance of BSE-Sensex pre and during the lockdown period. It can be observed from the table that during pre-lockdown period the Sensex was trading above forty thousand points. From November 2020 to February 2020 on an average the Sensex was trading at 40267.08 points. It is evident from the table that BSE-Sensex was trading at its all-time high during jan-2020 i.e. 42273.87 points. During the period Nov-19 to Dec-19 Sensex posted positive returns of 1.66 % and 1.13 % respectively. However, by the end of the jan-2020 the covid-19 pandemic had hit the stock exchanges around the world which led to fall in the Sensex return during Jan and Feb 2020. On an average Sensex posted -1.10 returns during the pre-lockdown period. The beginning of the year 2020 i.e. jan-20 and

Feb -2020 witnessed negative returns of -1.27% and -5.93 % respectively. On the other hand, during lockdown period the Sensex fell to its three year low i.e. 25, 6389.90 points during March 2020 and Sensex posted negative return of -22.85%. However, the market seemed to have recovered from the pandemic shock during the month of April 2020 as the Sensex posted 14.99% returns up from -22.85 % during its previous month close. Further it can be observed that due to lower than the expected earnings coupled with fear of possible economic slowdown overall sentiment of the market remained negative during the lockdown period as Sensex on an average gave a return of -1.29% during this period.

**TABLE 3: PRICE-TO-EARNINGS RATIO OF SENSEX**

| Pre-Lockdown Period | P/E | Lockdown Period | P/E |
|---|---|---|---|
| Nov-2020 | 27.82 | Mar-2020 | 19.55 |
| Dec-2020 | 27.95 | April-2020 | 18.78 |
| Jan-2020 | 25.67 | May-2020 | 19.46 |
| Feb-2020 | 24.64 | June-2020 | 21.82 |
| **Average** | **26.52** | **Average** | **19.9025** |

Source: BSE

Table 3 Historical average Sensex PE ratio from 2007 to 2019 is 20.49. In terms of valuation, during pre lockdown period the Sensex was found to be trading at higher valuations i.e. the price-to-earnings ratio of 30-share index was above its historical average 20.49, generally P/E ratio of 20 and above indicates the over-valuation of the market. On an average the P/E ratio of Sensex during the period from November 2020 to February 2020 was 26.52 signaling overvaluation of the market.

On the other hand, the market corrected during the lockdown period as the price-to-earnings ratio of Sensex during lockdown period was found to be declining. P/E ratio which was trading at above 20 during pre locked period had substantially declined during the pase1, phase2, and phase 3 of the lockdown period i.e. P/E ratio of Sensex during feb-2020 was 24.64, however it declined to 19.55 by the end of March 2020. The average price-to-earnings ratio of Sensex during the lockdown period was 19.90. However, the indices swing from cheap to expensive during the month June 2020 as the P/E was found to be above 20.

**TABLE 4: MARKET-CAP-TO-GDP RATIO**

| Pre-Lockdown Period | M-Cap –to-GDP (%) | Lockdown Period | M-Cap –to-GDP (%) |
|---|---|---|---|
| Nov-2019 | 73.49 | Mar-2020 | 48.29 |
| Dec-2019 | 67.61 | April-2020 | 55.26 |
| Jan-2020 | 66.74 | May-2020 | 53.14 |
| Feb-2020 | 62.76 | June-2020 | 57.22 |
| **Range** | **10.73** | **Range** | **8.93** |

Source: www.gurufoucs.com

Table 4 depicts the Market –Cap-to-GDP ratio pre and during the lockdown period. The Market-cap-to-GDP ratio is one of the widely used valuation tool to understand whether, the stock market is overvalued or undervalued. Upon observing the table, it is clearly evident the market cap-to GDP ratio during the pre-locked down period was in the band of 65% to 79% indicating that the market was fairly valued. On the other hand, the M-cap-to-GDP ratio during the lockdown period was in the band of 50% to 65%, which indicates the market is modestly undervalued during the lock down period.

**TABLE 5: FOREIGN PORTFOLIO INVESTMENT (FPI) IN EQUITY MARKET**

| Pre-Lockdown Period | FPI (in INR Crores) | Lockdown Period | FPI (in INR Crores) |
|---|---|---|---|
| Nov-2019 | 25231 | Mar-2020 | -61973 |
| Dec-2019 | 7338 | April-2020 | -6884 |
| Jan-2020 | 12123 | May-2020 | 14569 |
| Feb-2020 | 1820 | June-2020 | 20672 |
| **Average** | **11628** | **Average** | **-8404** |

Source: NSDL

Table 5 presents the foreign portfolio investment in equity market pre and during the lockdown period. It can be observed from the above table that during pre-lockdown period on an average the foreign portfolio investment in equity market was 11628 crores. Further it is also observed that during the pre-locked period though the amount invested by Foreign portfolio investors were fluctuating but investors seemed to be to have positive sentiment towards the market. However, the in the beginning of the pahse1 and phase 2 of the lockdown period investors sentiment in equity market turned negative, to speak specifically, the foreign portfolio investment during the period march and April 2020 was -61973 cr and -6884 respectively. Finally, the financial package announced by the central government to overcome the possible economic slowdown due to COVID-19 pandemic seemed to have boosted the investors sentiment which was evident by the amount of foreign portfolio investment made in equity markets during the period May and June 2020, i.e. 14569 cr and 20672 cr respectively.

**TABLE 6: S&P BSE-SENSEX 3- MONTHS REALIZED VOLATILITY INDEX**

| Pre-Lockdown Period | Average 3- Months Realized Volatility index | Lockdown Period | Average 3- Months Realized Volatility index |
|---|---|---|---|
| Nov-2019 | 6.42 | Mar-2020 | 41.22 |
| Dec-2019 | 8.13 | April-2020 | 60.02 |
| Jan-2020 | 9.43 | May-2020 | 43.41 |
| Feb-2020 | 19.57 | June-2020 | 29.86 |

Source: BSE

Table 6 depicts the average S&P BSE Sensex 3 months realized volatility pre and during the lockdown period. A High the value of volatility index indicates the high volatility and uncertainty in the market. It is clearly evident from the table that during the pre- lockdown period market was less volatile. To speak specifically, during the period from Nov-19 to Feb 2020 the average 3- months realized volatility index value were 6.42, 8.13, 9.43 and 19.57 respectively. On the other hand the during the lockdown period i.e. from Mar-2020 to June 2020 the market was more volatile as the Average 3- Months Realized Volatility index during the lockdown period i.e. from March 2020 to June 2020 were 41.22, 60.02, 43.41 and 29.86 respectively.

## FINDINGS

1. During pre-locked down period on an average the Sensex was trading at 40267.08 points.
2. BSE-Sensex was trading at its all time high during the period jan-2020 i.e. 42273.87 points.
3. During the period Nov-19 to Dec-19 Sensex posted positive returns of 1.66 % and 1.13 % respectively. However, by the end of the jan-2020 the covid-19 pandemic had hit the stock exchanges around the world which led to fall in the Sensex return during Jan and Feb 2020.
4. On an average Sensex posted -1.10 returns during the pre-lockdown period.
5. The beginning of the year 2020 i.e. jan-20 and Feb -2020 witnessed negative returns of -1.27% and -5.93 % respectively.
6. Sensex fell to its three year low i.e. 25, 6389.90 points during March 2020 and Sensex posted negative return of -22.85%.

7. Market seemed to have recovered from the pandemic shock during the month of April 2020 as the Sensex posted 14.99% returns up from -22.85 % during its previous month close.
8. Due to lower than the expected earnings coupled with fear of possible economic slowdown the overall sentiment of the market remained negative during the lockdown period as Sensex on an average gave a return of -1.29% during this period.
9. In terms of valuation, during pre lockdown period the Sensex was found to be trading at higher valuations i.e. the price-to-earnings ratio of 30-share index was above it historical average 20.49
10. On an average the P/E ratio of Sensex during the pre-lockdown period was 26.52 signaling overvaluation of the market.
11. Market corrected during the lockdown period as the price-to-earnings ratio of Sensex during lockdown period was found to be declining.
12. P/E ratio which was trading at above 20 during pre locked period had substantially declined during the pase1, phase2, and phase 3 of the lockdown period i.e. P/E ratio of Sensex during feb-2020 was 24.64, however it declined to 19.55 by the end of March 2020.
13. The average price-to-earnings ratio of Sensex during the lockdown period was 19.90. However, the indices swing from cheap to expensive during the month June 2020 as the P/E was found to be above 20.
14. Market cap-to GDP ratio during the Pre locked down period was in the band of 65% to 79% indicating that the market was fairly valued.
15. Market cap-to-GDP ratio during the lockdown period was in the band of 50% to 65%, which indicates the market is modestly undervalued during the lock down period.
16. During Pre-lockdown period on an average the foreign portfolio investment in equity market was 11628 crores
17. The beginning of the pahse1 and phase 2 of the lockdown period investors sentiment in equity market turned negative, to speak specifically, the foreign portfolio investment during the period march and April 2020 was -61973 cr and -6884 respectively.
18. The financial package announced by the central government to overcome the possible economic slowdown due to COVID-19 pandemic seemed to have boosted the investors sentiment which was evident by the amount of foreign portfolio investment made in equity markets during the period May and June 2020, i.e. 14569 cr and 20672 cr respectively.
19. During the Pre-locked period market seemed to be less volatile as the average 3- months realized volatility index value were 6.42, 8.13, 9.43 and 19.57 respectively. On the other hand the during the lockdown period i.e. from Mar-2020 to June 2020 the market was more volatile as the Average 3- Months Realized Volatility index during the lockdown period i.e. from March 2020 to June 2020 were 41.22, 60.02, 43.41 and 29.86 respectively.

## CONCLUSION

The paper attempts to understand the impact of Pandemic induced lockdown on stock market performance pre and during the lockdown period with special reference to Indian equity market. The study found that Due to lower than the expected earnings coupled with fear of possible economic slowdown overall sentiment of the market remained negative during the 1st, 2nd and 3 rd phase of lockdown. However, the market seemed to have recovered from the pandemic shock during the 4th phase of the lookdown. During pre-lockdown period the Sensex was found to be trading at higher valuations. On the other hand, during lock down period the market swing from expensive to cheap. However, this trend could not sustain for the longer period as it was observed that during the 4th phase of the lockdown the market was found to be rebounding and market swing from cheap to expensive. Further, in terms of volatility the market was found to be more volatile during the lockdown period due to negative sentiments towards the equity market. In Nutshell, pandemic induced lockdown seems to have a temporary or short term impact of the stock market performance as the market sentiment was found to be negative during the Phase1, Phase2, and Phase3 of the lockdown period. However, market was found to be rebounding during the fourth phase of lockdown. Further it was also observed that increase in the foreign portfolio investment coupled with government measures to strengthen the economy boosted the investors' confidence in equity market.

## LIMITATIONS

Following are some of the major limitations of the study
1. Foreign portfolio investment in Debt market is not considered in the present study
2. BSE-Sensex is considered as a proxy for stock market performance, while other index such as NIFTY-50 is not considered.
3. Only equity segment is taken to understand the stock market performance, while derivatives and commodity segment is ignored.

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