

DIGITAL BANKING: A STUDY OF FRAUDULENT PRACTICES IN INDIAN BANKS

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ABSTRACT:

This research study envisaged an extensive analysis of the impact of digitalization of banking operations on raising banking frauds and cyber frauds. The present technological savvy banking environment has offered wide range of facilities to its customers. By using these facilities a customer can conveniently pay and settle his due amounts while sitting at home or work place. Growing dependency on technology has offered many advantages but at the same time it is largely misused by many persons consequently responsible in raising frauds. Thus this research study has tried to covers the growing prospects of banking digitalization under the period of 2012-13 to 2018-19 and its impact on raising frauds. The study concluded with the significant impact of digitalization on raising banking frauds and cyber frauds in Indian banking sector.

Keywords: Digitalization, Banking frauds; Cyber frauds; Real Time Gross Settlement (RTGS), CCIL Operated Systems, Retail Electronic Clearing, Cards, Prepaid Payment Instruments (PPIs) and Mobile Banking.

I. INTRODUCTION:

In the contemporary scenario growing dependence on technology has created revolution in banking industry particularly in

highly populated country like India. The process of digitalization in banking covers a broader prospective in terms of extensive use of electronic medium to carry out banking operation. The digitalization helps customers to avail banking product and services though mobile phones, computers. The course of digitalization occurs without human involvement. Generally digitalization is also known as online banking or internet banking or e banking. The excessive use of smart androids phone by customers has provided a greater access to online transactions. Now they can easily order purchase or sell products and services while sitting at home. Digital banking has made transfer of payment easy. One can pay directly in bank account of the recipient.

II. REVIEW OF LITERATURE:

Florian.D &Spacek.M (2021) discussed the digitalization as one of the major aspect facing the banking industry. The study followed an exploratory research approach to assess the obstacles in digital transformation of both commercial and private sector banks. The study revealed that Management and Strategy, Employees and Customers, Technology and its regulation, need to be paid high attention compared to other obstacles related to public benefit, customer participation market knowledge and products under the preview of

digital transformation. Jain, Vipin et & all (2020) highlighted the vital role of banks in Indian economy. The banks are the spine of financial system of a country. Strong banking system is the required for economic growth. For this information technology plays an important role in bringing IT revolution in Indian banking sector.

Shettar.M.R (2019) aimed to study role of digitalization in India. The study has also focused on analyzing the factors affecting the scope of digital banking. The paper has also highlighted trends in digital banking in India and also the technological milestones in Indian banks. The study is descriptive in nature and based on secondary data.

Jagtap. V.M (2018) has explored the need and progress of digitalization in banking sector with reference to various digitalization mode of Automatic Teller Machine, Real-time Gross Settlement, Point of Sale Terminal Electronic Funds Transfer, Electronic Compensation Service, Tele Banking. The paper also highlighted the growth of Indian banking sector in terms of percentage change in payments though digitalization under the time frame of 2015, 2016 and 2017.

Sujana.M.V.S(2018) has discussed the digitalization in banking sector .the study was focused on determining the awareness of customers elated to digitalization in banking sector. Different benefits and drawbacks associated with the use of digitalization in banks are also explored under the study.

Nayak.R(2018),has discussed the importance of digital banking in rural area. Different Issues and challenges in Digitalization of rural banking are also explored. The study was focused on analyzing different factors influencing the Digitalization of rural banking such as Communication networks, education, occupation, income, gender, and socio-economic status.

III. OBJECTIVES OF THE STUDY:

- To analyze the impact of raising banking
- frauds and growing need of digitalization in Indian banking sector.
- To determine significant consequences of Banking digitalization in India.

IV. HYPOTHESES OF THE STUDY:

In order to analyze the impact of impact of raising banking frauds and growing need of digitalization in Indian banking sector the following hypothesis have been framed under the study.

H₀₁ = There is no significant impact of need of digitalization and raising banking frauds in Indian Banking sector.

H₀₂ = There is no significant impact of banking digitalization on raising cyber frauds in Indian Banking sector.

V. RESEARCH METHODOLOGY:

This study has taken has taken assistance of secondary source of data to analyze the impact of raising banking frauds and growing need of digitalization in Indian banking sector. The data is collected from the annual report of RBI, RBI Bulletins, Finance suitability report, articles published in online newspapers such as business times and economic times, news broadcasting NDTV. The collected data has been analyzed under the time frame of year 2011-12 to 2018-19.

A. Research Instrument:

In this study the statistical analysis of data has been done using correlation and student t test to determine the impact of digitalization and banking frauds in India.

B. Time Period:

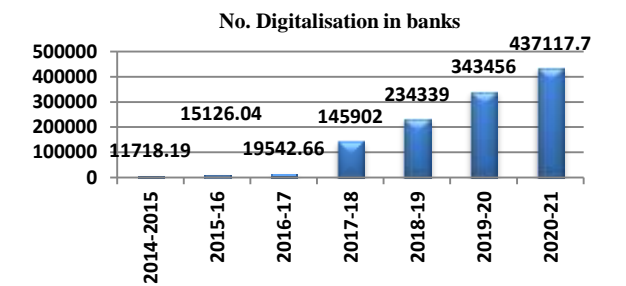
The analysis of data has been done under the time frame from the year 2014-15 to 2019-20 & 2020-21.

VI. MODES OF BANKING DIGITIZATION:

With the growing need of technology transition, banks being the social entity also concentrated its entire operations digitally. Fast technological changes have enforced banks to adhere the latest technology so as to provide its customers a techno savvy environment. The banking digitalization involved RTGS, Interbank Transactions, CCIL Operated Systems, Retail Electronic Clearing, Cards, Prepaid Payment Instruments (PPIs) and Mobile Banking. These are the various modes of payment and settlement system in Indian banking system.

Year	No. Digitalisation in banks	Volume of Banking digitalization(inCr)
2014- 15	11718.19	1,682,461.11
2015-16	15126.04	1,835,102.59
2016-17	19542.66	1,835,102.59
2017-18	145902.00	13,69,86,734
2018-19	234339.00	16,38,52,286
2019-20	343456.00	16,23,05,934
2020-21	437117.70	141485173

Source:www.rbi.org.



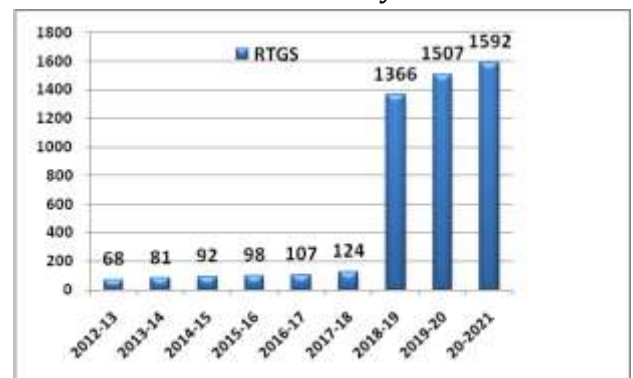
Graph No.1

Years	RTGS	CCI	Retail.E.C	Cards	PPIs	ATMs
2012-13	68.52	2.26	694.07	6398	66.94	114014
2013-14	81.11	2.56	1108.32	7219	133	160055
2014-15	92.78	3.03	1687.44	8423	314	181398
2015-16	98.34	3.12	3141.53	10038	748	212061
2016-17	107.86	3.65	4204.96	12055	1963	222475
2017-18	124.46	3.5	5467.29	13358	3459	222247
2018-19	1366.3	36.17	71132.6	160462	46072	221703
2019-20	1507	36	5729	72384	53318	234341
2020-21	1592	27.97	317851	578413	49392	239000

Source:RBI Buttein

A. Real Time Gross Settlement (RTGS):

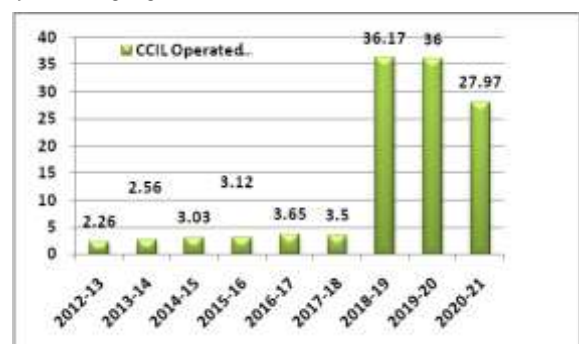
In the technology driven economy, the digital banking transactions made by customers for various payments and receipt of online purchase transactions interbank clearing, Interbank transactions are related to real time gross settlement. It is observed from the above data that there has been a continuous increase in RTGS transactions near about twenty times during the period 2012-2013 to 2018-19. This is due to consecutive raise in The customer transactions has been reported an increasing tend from 68 in the year 2012-13 to 1366 in 2018-19 and then to 1507 in 2019-20 to 1592 in year 2021.



Graph No.2

A. CCIL Operated Systems

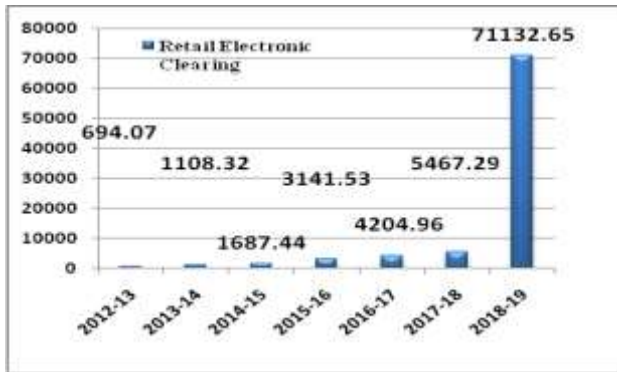
The clearing and settlement of transactions by banks through clearing corporation of India has reported an increase trend from 2012-13 (2.26) to 2018-19(36.17).It is observed that the CCIL operated system has reported an increase of eleven times during 2017-18 (3.72)to 2018-19 (33.07). While reduced to 36 (2019-20) & 27.97 in 2020-21.



Graph No.3

B. Retail Electronic Clearing

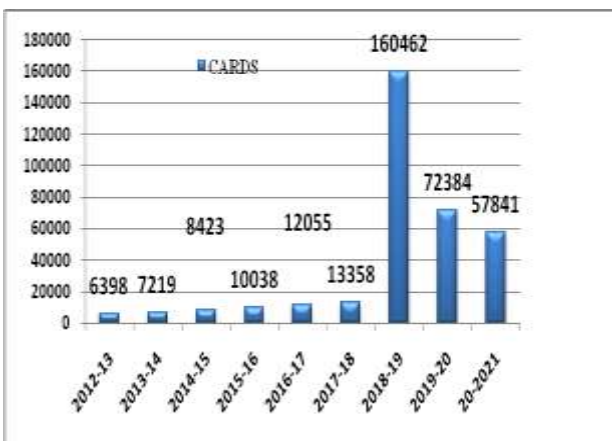
In banking system the digital transactions in the form of retail electronic clearing has observed a continuous increase from 694.07 in the year 2012-13 to 71132.65 in 2018-19 there is a drastic increase in retail electronic clearing transactions from 5467.29 2017-18 to 71132.65 in 2018-19.



Graph No.4

C. Cards Transactions

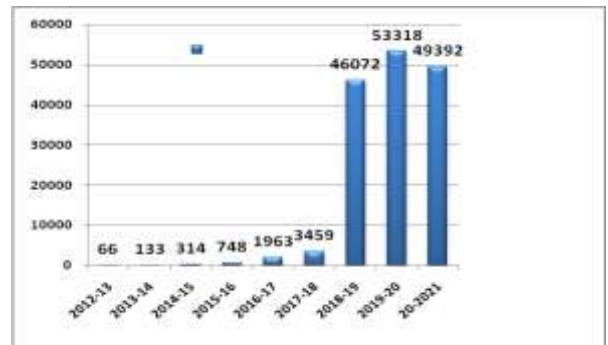
The bank provides a wider access to technology for its customer in the form of purchasing through ATM cards Debit cards and credit cards. A customer can also verify his bank amount deposited or withdrawal at any time. Thus greater usage of banking cards has made easy payment and receipts transactions. The momentum of card usage has been increased from 6398.35 in the year 2012-13 to 160462.6 in 2018-19. thus greater admittance of banking technology. While reduced to 72384 in 2019-20 & 57841 in 2020-21.



Graph No.5

D. Prepaid Payment Instruments (PPIs)

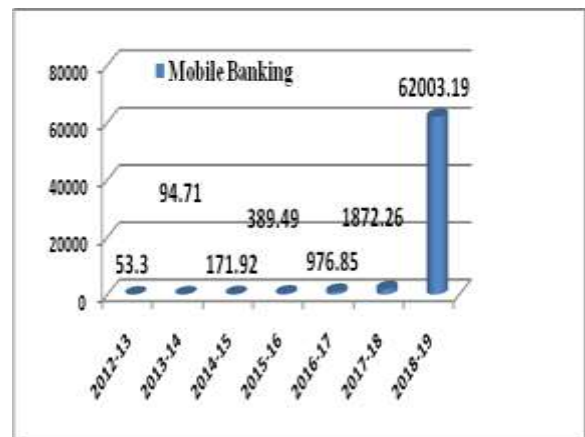
The banking digitalization has provided many facilities to its customers for purchasing of goods and services .these includes magnetic strip cards, smart cards mobile accounts online wallets. From the above data it has been observed that there is a considerable increase in prepaid instruments from 2012-13 66.94 to 53318 in 2019-20 but declined to 49392 in 2020-21.



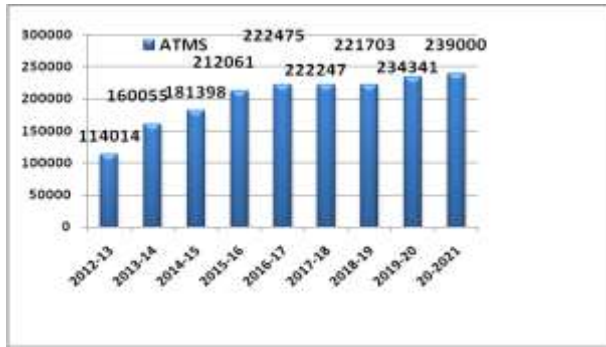
Graph No.6

E. Mobile Banking & No. of ATM's

Mobile banking has turned out to be one of the important banking services that assist its customers to carry out transactions using mobile phones. The number of users as depicted from the above table revealed an increase from 2012-13 (53.3) to 62003 in 2020-21 whereas there is an increase in number of ATM's 2012-13114014 to 239000 in 2020-21.



Graph No.7



Graph No.8

VII. Discussions and Findings:

H₀₁ = There is no significant impact of Banking digitalization on raising banking frauds in Indian Banking sector.

H₀₂ = There is no significant relationship between digitalization in Banks and Cyber Frauds.

H₀₁ = There is no significant impact of Banking digitalization on raising Banking Frauds in Indian Banking sector.

Year	No. Of Banking Frauds	No. Banking Digitalisation
2014-15	4639	11718.19
2015-16	4644.00	15126.04
2016-17	4690.00	19542.66
2017-18	5071.00	145902.00
2018-19	5916.00	234339.00
2019-20	6799.00	343456.00
2020-21	8707.00	437117.70

Source: dnaindia.com& RBI Buttein

Pearson Correlation	Adjusted R Square	df1	df2	F Change
0.957	0.916	1	5	54.517

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	162856982757	1	162856982757	54.517	0.001 ^a
Residual	14936302708	5	2987260541		
Total	177793285465	6			

- a. Dependent Variable: Banking fraud
- b. Predictors: (Constant), Digitalisation

A. Interpretation:

The correlation (r) between banking frauds and digitalization is found to be 0.957. The p value is 0.001, which is less than 5 degree of freedom $p > 0.001$ therefore null hypothesis is rejected which means there is a significant impact of Banking digitalization on raising Banking Frauds in Indian Banking sector.

H₀₂ = There is no significant relationship between digitalization in Banks and Cyber Frauds.

Year	No. Of Cyber Frauds	No. Of Banking Frauds
2014-15	13083	4639.00
2015-16	16468	4644.00
2016-17	13653	4690.00
2017-18	34792	5071.00
2018-19	28248	5916.00
2019-20	44546	6799.00

Source: dnaindia.com& RBI Buttein

Pearson Correlation	Adjusted R Square	df1	df2	F Change
0.866	0.750	1	4	12.031

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2940356	1	2940356	12.031	0.026 ^b
Residual	977618	4	244404		
Total	3917974	5			

- a. Dependent Variable: Banking fraud
- b. Predictors: (Constant), Cyber Frauds

B. Interpretation

There exist a positive and a strong correlation 0.866 between Number of Banking Frauds and Cyber Frauds during the study period. The p value is 0.001, which is less than 5 degree of freedom $p > 0.026$ Therefore null hypothesis is rejected which means that There is a significant relationship between Banking Frauds and Cyber Frauds.

VIII. CONCLUSION:

Digitalization of banking operation is the indispensable need of banks as well as society at large. The digital banking is proved valuable in smooth transfer of payments thereby saving times and getting rid of standing in long queue in banks. The automation of banking operations has also succeeded in bringing error less transactions without the involvement of humans. Due to this technology oriented banking environment customers are very convenient in online purchase. They can easily manage their large cash amounts without carrying cash every time. Different payments through mobile apps like Pay tm, Phone pay, Airtel pay etc has made easy flow of money for small daily transactions. The facilities of online banking like NEFT, and other modes has facilitated in secured transfer of money which helps household to deposit money for booking Gas cylinders, payment of online electricity bills or payment of insurance Premium, EMI etc. Thus increased digitalization has served many advantages to the society but it has also offered illegal practices for reaping unlawful benefits. Through this research study it is revealed that increased banking digitalization has significant impact on raising banking frauds. However banking frauds are not significantly correlated with cyber frauds. Before going for online facilities a customer must ensures the proper channel of using these facilities. Without knowing the full fledged information regarding the use of e banking

facilities, he or she should not initiate it. Lack of proper information related to authentic websites and portal may call troublesome situation therefore before moving ahead a customer must be aware about the manner of transactions otherwise details provided by them can be misused by hackers.

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