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# TRANSFORMATION OF BANKING TRANSACTIONS THROUGH MOBILE APPS – AN EMPIRICAL STUDY IN CHANGING FINANCIAL ENVIRONMENT

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## **Abstract**

The evolution of the banking sector has been affected by the development of the internet and mobile application technologies. With the increased use of mobile phones and the help of the Internet, virtually every area and business have changed. Using mobile apps for banking services and transactions refers to the provision of banking services with the help of mobile. The adoption of mobile applications to avail banking services has changed the banking system. It is proved successful, easy to use, and cost-effective by customers and the banking industry. Security, safety, and convenience are some of the significant factors on which mobile banking depends. At present, many customers have adopted mobile banking transaction systems. However, some customers still feel hesitant to use mobile applications to avail banking services. A sample of 122 respondents was collected through a "standard questionnaire," created on a five-point interval scale.

**Keywords:** *Mobile banking, customer, mobile technology, Electronic banking, Internet banking*

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## **Introduction**

Every industry relies upon the banking sector to make its functioning easier. With the continuous development in technology, banking is undoubtedly turning out to be a foundation for industries all over the globe. The job of innovation is expanding step by step, which is additionally advancing the financial business. Banks have embraced technology that enables consumers to pay their bills online fast, set up automated payments, and even get seasonal discounts while sitting in the comfort of their home or traveling, rather than waiting in lines to do these tasks (Chen et al., 2017). Technology has made alternate channels like ATMs, net banking, and mobile banking to suit customers' needs. Internet connectivity has moved from wired connectivity to a wireless mode that can easily be accessed across all devices, even a watch! With the mobile phone's versatility, it is no secret that mobile banking brings expansive possibilities in nations, where most of the customers and potential clients are fundamentally associated with the web through their mobiles (Sivathanu, 2019).

In India, the financial sector adopted technology and its transformational path since the 1980s. With the integration of technology into its basic functioning and processing, banks started with NEFT, ECS services, RTGS, and alternate modes for transactions such as ATMs, telebanking, mobile banking, and online banking, quickening the stride with which technology was working its way through the industry. Mobile technology is changing the world of banking by giving comfort, rationality, and availability to its customers. The number of Indian customers utilizing their mobile phones is increasing daily, day by day. 'India on the Go – Mobile Internet Vision Report 2017', issued by IAMAI and KPMG (2017), suggests that between 2016 and 2017, India is anticipated to have 236 - 314 million mobile internet subscribers. The report also states that by 2017, this number would cross over 500 million (Chen et al., 2016).

India is the fastest developing smartphone market in the Asia Pacific. Budgeted smartphones, along with network tariffs being economical, more and more people are becoming internet users. The leading mobile companies (HTC, Sony, Samsung, Apple) meet solid rivalry from new contestants' local companies like Karbonn, Micromax, and Spice. The success of mobile phones has created new paths for both financiers and consumers. Most of India's public and private banks anticipate mobile devices as the prevailing channel for clients to get through to their accounts more conveniently (Von Horn, 2019). They have also established user-friendly mobile applications and online web interfaces to offer their customers the correct mix of accommodation, usefulness, and experience. Transactions done at a branch is 43 times more expensive than those done through mobile banking, whereas telebanking or using an ATM is still costly. The cost for transactions done through the Internet or online banking is still double the cost in the report by Juniper Research, stating that developing nations like India, China, and Bangladesh saw critical development in mobile banking in the previous year. An estimation suggests that by 2019, the number of mobile banking users would estimate a whopping 32% of the worldwide populace (Das, & Ali, 2020).

Growing economies will be the ideal point of convergence for technology and banking. This fast reception of applications and versatile banking gives off an impression of being a game-changer obscuring branches of banks and internet banking in already developed nations. In light of this, it is intriguing to take a gander at the arrangement of banking administrations utilized in India and the pool of customers to whom these services are being provided (Dash et al., 2014).

### **Literature Review**

**Mishra (2014)** stressed that m-commerce's implementation in India with behavioral theories is very clearly projected in consumers' performances. The various factors that she discovered were the outlooks, subjective norms (SNS), and observed behavioral controls. She noticed these factors were the main antecedents of behavioral intentions (BIs), which moved forward with m-commerce. According to her study, which focused on the point that the psychological factors

play an essential role than technological aspects for m-commerce or e-commerce. Mostly it was noticed that the person's attitudes and the approval were related to the end-users of BIs. Focusing on the point, which she highlighted, says that if marketers encourage constructive outlooks toward m-commerce, it will better enhance the charges of implementation in mobile banking.

**Tandon, Mandal, & Saha (2003)** account concentrated on the factor that m-commerce is very significant in mobile banking in a place where the contemporary world exists. According to their study, service and network technologies are considered one of the foremost procedures in this new technological era, which noticed the vast difference between technologies' proficiencies and consumer outlooks. One crucial factor heightened is that in case of any deficiency of appropriate supervision, the idea ultimately went into disappointment in the commerce business of mobile undertakings. In many cases, manufacturers and operators have approved the speed of data transmission for the interfaces of their users.

**Grewal, Corner, & Mehta (2001)** established the uprisings in (ICT) information communications and technology. Its dealings have overwhelmed obstructions instigated by non-educated people, obtainability and charge affected by a large percentage of 70 in India exist in countryside areas. The reading highlighted that the cost of mobile service charges is less compared with other countries with India. Moreover, the individuals are keen on paying for several limitless data plan services. This made the GoI assist by promising enterprises to progress the development of e-commerce and m-banking.

**Milind Sathye (1999)** enumerates the aspects of online banking in Australian customers. According to this study, which highlighted security concerns and a lack of awareness about Internet banking, this study is concerned with and obstructs the adoption of Internet banking in Australia. The study also suggested that the distribution of commercial Internet services shares customers' service and a circulation approach.

**Eun-Ju Lee, Jinkook Lee & David W. Schumann (2002)** examined outcomes based on communication and modality in which customers take on modernism and technology. Precisely, in this study, typology sources of communication and modality are obtainable. This is congruent with the foundation's motivations and how consumers' use of automated banking is seen. The analysis indicated that interaction aspects could substantially predict the consumer taking on technological innovations. The customer's first choice for communication basis and modality fluctuate for diverse sections of adopters.

**Minna Mattila, Heikki Karjaluoto & Tapio Pentto (2002)** analyzed the Internet banking performance of advanced customers in Finland. Two critical influences have a meaningful outcome of the channel in Internet banking, which is prominent in household income and education. Agreeing to the estimated trouble with deficiency of service taking personally through

e-banking in using computers is this chief obstacle of banking through Internet taking on the mature customers. It is believed that Internet banking as a means of payment among mature consumers is the third widely held mode of payment. According to their understanding, it was noticed that it was also set up to be more unsafe among mature consumers than bank consumers in broad-spectrum.

**Anesh Maniraj Singh** (2002) looked at the Internet marketing effectiveness in South Africa and the determining factor responsible for respondents' the complete picture that banking online is not practiced that progress approaches to make practice online banking. The result exhibits in which the practice of Internet banking is more common compared to females. It was noticed that the ATM is superior to banking via Internet habit. Different facilities for checking balances/statements and inter-account transfers have avast usage percentage of Internet bankers. This crucial issue meant for those not banking online is security respectively. The particular security and reliability measures to hold them to bank online were desirable by potential customers.

**Irwin Brown, Rudi Hoppe, Pauline Mugera, Paul Newman & Adrie Stander's** (2005) study was meant to persuade issues for Internet Banking adoption in South Africa. The highlighted point shown by the study was to compare the outcomes with similar reading accompanied in Singapore to distinguish the dissimilarities in adoption procedure in association with the national environment. According to the result, which approves the attitudinal and observed behavioral mechanism dynamics that influence adoption is the same as South Africa and Singapore. Other issues show the dissimilarities with the determining factors, which is the mark encouragement of determinants certainty. The following statements show that the differences are explained in three components concerning environmental aspects. These factors include ICT policies implemented by the government, socio-economic state of affairs, and the state of Internet dispersal.

**Mari Suoranta Minna Mattila** (2004) concentrated on the factors responsible for the diffusion and adopters of mobile banking services in Finland. In connection with earlier research that has acknowledged the distinctive features of a prospective electronic services period, the potential adopter is associated. In understanding this study, one can high point some contradictory empirical findings. The reading specifies that better-of respondents were a smaller amount keen to accept the new mobile banking services. In the findings, it was noticed that the additional skillful customers and infrequent operators were further well-versed through the communication that is personally occurred, taking others such as non-users or the less experienced were additional educated by mass media.

**Lawrence F Cunningham, James Gerlach & Michael D Harper** (2005) observed the dynamic forces of estimated risk during the numerous phases of the customer purchasing procedure of e-banking facilities. According to the analysis of the study, which designates the critical factor such as financial risk, which is responsible for the risk premium, whereas emotional, mental, and risk of the time play subsidiary values as the drivers of risk for assured steps of the customer

obtaining procedure. According to the risk perceived for e-banking services, one can say that further fundamental alterations in levels of the risk compared to the service of the bank taken as traditionally. An essential finding of the risk highlighted in the study about e-banking infuses entirely every step of the customer purchasing procedure.

**Sylvie Laforet & Xiaoyan Li** (2005) explore the market positioning of China for banking online and on mobile. The safe measures issues were considered the most significant and noteworthy influence that encouraged consumers of China to embrace online banking. Obstacles that were considered the chief obstructions to online banking were the various factors such as awareness of computer, technological and the risk factors in which expertise and China function with their customary banking principles of cash-carry. The reasons that are important to highpoints were the awareness issue they lacked and no accurate information about the banking facilities of bank respectively, which became the barriers of the bank.

**Wendy W.N. Wan, Chung-Leung Luk & Cheris W.C. Chow** (2005) exhibits various reasons responsible for the adoption of Hong Kong bank. There are four primary customers' banking ways. These channels in which they function are internet banking, branch banking, telephone banking, and ATM. According to the study, one of the reasons is the effects of demographic variables and emotional principles responsible for the optimistic qualities fascinated by the networks. ATM is considered supreme commonly followed in the way of adoption in which banking through internet and banking in-branch according to their understanding in the study. Banking over the telephone is considered to be the least frequently adopted channel rendering to the study. The study also highlighted those psychological principles in which the degree channel is infatuated positive approach. This feature extended to acceptances of online banking and ATMs vs. in-branch and telephone banking. Except for ATM, the other factor that is strongly associated with adoption is the Demographic background.

### **Objectives**

1. To identify how mobile banking apps have brought transformation in the banking environment.
2. To check whether various aspects of the mobile banking transformation are significant or not.

### **Methodology**

The nature of the study is exploratory. The data was collected from 122 respondents, for which a structured questionnaire was used. Statistical techniques such as Mean and t-test were applied. The sampling method used was convenience sampling.

### **Findings of the study**

Table 1 shows several respondents based on their gender, male respondents are 54.92%, and female respondents are 45.08%. Regarding age, those between 18 and 25 years old make up 23.77%, those between 25 and 30 years old make up 33.61%, and those 30 years and over make up 42.62%. Looking at the respondents' education, Graduates are 27.05%, post-Graduates are 38.52%, and Professionals are 34.43%.

**Table1 Basic details of the respondent**

<b>Variables</b>	<b>Number of respondents</b>	<b>%age</b>
<b>Gender</b>		
Male	67	54.92%
Female	55	45.08%
<b>Total</b>	<b>122</b>	<b>100%</b>
<b>Age</b>		
18 to 25 years	29	23.77%
25 to 30 years	41	33.61%
30 years & above	52	42.62%
<b>Total</b>	<b>122</b>	<b>100%</b>
<b>Education</b>		
Graduates	33	27.05%
Post-graduates	47	38.52%
Professional	42	34.43%
<b>Total</b>	<b>122</b>	<b>100%</b>

**Table2 Transformation of Banking Transactions through Mobile apps**

<b>Sr. No.</b>	<b>Statements</b>	<b>Mean Score</b>	<b>t Value</b>	<b>Sig</b>
1.	Mobile apps have made the banking system smooth	4.12	13.45	0.000
2.	Customers are finding mobile apps easy and convenient to use	4.23	12.24	0.000
3.	Mobile apps have made allowed customers to avail banking services from anywhere and at anytime	3.89	10.00	0.000

4.	Banks are finding mobile apps more cost-effective	4.10	11.77	0.000
5.	Mobile apps have simplified the banking system	4.29	12.49	0.000
6.	Through mobile banking, it is easy to monitor daily transactions in the account	4.00	12.01	0.000
7.	Mobile banking is a free service to the customer	3.39	3.88	0.000
8.	Now the customer does not need to have desktop computers; they can easily avail themselves of banking services through mobile apps.	4.33	14.95	0.000
9.	Customers can easily apply for any loan directly from their mobile banking apps	4.19	12.74	0.000
10.	Depositing money has become easy and convenient through mobile banking apps	4.27	12.30	0.000

On the other hand, the statement with the highest mean value is "Now the client does not require a desktop computer, they can simply access banking services on the move, via mobile applications" (mean score 4.33). The second highest mean score is 4.29 for the statement "Mobile apps have simplified the banking system." The third highest mean value is 4.27 for the statement "Depositing money has become easy and convenient through mobile banking apps." The statement "Customers are finding mobile apps easy and convenient to use" has a mean score of 4.23; the mean score of 4.19 is for the statement "Customers can easily apply for any loan directly from their mobile banking apps." "Mobile apps have made the banking system smooth" scores the means value of 4.12, "Banks are finding mobile apps more cost-effective" has the mean value of 4.10, "Through mobile banking, it is easy to monitor daily transactions in the account" has the mean score of 4.00. Mobile apps have allowed customers to avail banking services from anywhere and at any time" and "Mobile banking is a free service to the customer" the mean scores are 3.89 and 3.39, respectively. The T-value of all the above statements concerning the transformation of Banking Transactions through Mobile apps is significant. The t-value for all statements is positive, and the significance value is less than 0.05.

### **Conclusion**

Digital transformation in the banking sector is a continuous process influencing the external and internal environment of the banking industry. Conducting banking transactions through a mobile application is considered a significant technological transformation of recent times. Making use of mobile applications needs an internet connection. Mobile application usage has increased rapidly, and customers are adopting the system in huge numbers as they have found it easy to use, convenient, and comfortable (Chawla & Joshi, 2019). Now they do not have to stand in long

queues and wait for their turn in the banks. With the help of mobile banking apps, they can now carry on their banking transactions anytime and from anywhere. The government has also made extra efforts to promote mobile banking apps and is motivating people for their adoption. It is cost-effective for banks because it saves time for customers and banks. Means and T-Test have been applied to find out the result of the study, and all the statements are found to be significant as the significant values for all statements are less than 0.05 (Alt & Puschmann, 2012).

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