CHALLENGES FOR ONLINE BANKING IN CUSTOMERS` PERSPECTIVE: A REVIEW

Mehmood Ali1, Muhammad Ali Khan2, Muhammad Ahmed Kalwar3\*

1Post Graduate Student, Muhammad Ali Jinnah University. Karachi, Sindh, Pakistan.

2Assistant Professor, Industrial Engineering & Management, Mehran UET, Jamshoro, Sindh, Pakistan.

3Assistant Manager, Shafi Private Limited, Lahore, Pakistan

[kalwar.muhammad.ahmed@gmail.com](mailto:kalwar.muhammad.ahmed@gmail.com)

# ABSTRACT

Purpose: This literature review was conducted with the purpose of highlighting the Barriers and challenges of banking with respect to customers` perspective

Methodology:This narrative literature review was based on secondary data which was obtained from the previously published, empirical studies, review papers and case studies. Recent research was reviewed for the organization of present research. The data/evidences which were collected form the research conducted in the past was organized into the tables and charts in MS excel.

Findings: The customers preserve their funds and money in bank for the future needs, businesses and for belongings and they want to be assured in terms of safety of their reservoirs.Therefore, it is of highest need to focus the transactional security on the e-banking phenomenon. There is number of customers who are using the services of internet banking so it when there is the question of challenges about e-banking; customer awareness should not be found in the answer but the lack of promotional events regarding the e-banking.

Importance: In the recent time, the development in technology has affected business organizations in several ways, most especially in terms of management and control; marketing and research; operations and decision making [1]. Financial system plays an important role in the economic development of the country [2]. The traditional mode of delivering products and services by banks to the consumers’ is through a single distribution channel and that is physical bank branches [3]. Nowadays, due to the advent of technology, banks provide their services physically through their branches and online channels as well; but in the way to implementation of online banking services, organizations i.e. banks face a lot of challenges. Contribution of this research is to highlight the challenges that have been faced by the organizations.

Limitations: Major limitation of present research is that every factor/challenge could not be discussed; in upcoming papers remaining factors will be focused and will be reviewed in detail.

Implications:The purpose of the bank is to assure safety to its customer and that is possible by the technical and justifying knowledge. There are some serious issues about internet banking such as lack of promotions about e-banking and legal and security issues, the reviews on the mentioned areas can be conducted for the clear understanding of the problem.

Originality: It was indicated from the literature review that most of the collected research papers were based on the bankers` perspective, country`s rules and regulations perspective, two banks` comparison perspective etc. Therefore, it is needed to be conducted the review in the customer perspective so that the customers` desires and way of looking at e-banking can be highlighted for the greater good of customers and the banking sector.

**Keywords:** Banking; challenges; online banking; organization.

# INTRODUCTION

Information technology (IT) has been playing a remarkable role in the processing, calculation and retrieval of data[4]. Companies needs to innovate their processes and practices on the advent of new technology [5].In the recent time, the development in technology has affected business organizations in several ways, most especially in terms of management and control; marketing and research; operations and decision making [1]. Financial system plays an important role in the economic development of the country [2]. The traditional mode of delivering products and services by banks to the consumers’ is through a single distribution channel and that is physical bank branches [3]. In order to cope with the quick changes in the business scenario, banks started to rely on distribution channels as an alternative strategy for differentiation and gaining further competitive advantage [3]. Banks boost technology investment spending strongly to address revenue, cost and competitiveness concerns [1]. In a world, which is becoming increasingly open as a result of the Internet and the World Wide Web (WWW), Internet banking has been gaining ground around the globe [6]. Financial services industry is developing due to the introduction of internet, rapid technological evolutions, deregulation, globalization as well as the impact of changing competitive and regulatory forces [3]. Implementation of internet in banking system has modernized the banks [2]. In banking industry, information technology is the major factor for future development of financial services industry. It is based on sharing of information, which mainly depends on information and communication technology for acquiring, analyzing and delivering data to all relevant users [7]. E- Banking is knowledge based and mostly scientific in using the electronic devices of the computer resolution through the extensive use of IT without direct resources to the bank by the customers [2]. E-banking refers to financial activities that are carried out using electronic technology [8]. E-banking means any user with a personal computer and a browser can get connected to his banks website to perform any of the virtual banking functions. In E- banking system the bank has a centralized database that is web-enabled [3]. The introduction of e-banking services is considered a breakthrough of the banking industry, bringing various benefits to both customers and financial institutions [9]. One of the benefits that banks experience when using e- banking is increased customer satisfaction [1]. It provides enormous benefits to consumers in terms of the ease and cost of transactions [10]. Electronic banking has provision networks that replaces and replicated various activities currently executing by the bank [11]. E-banking contribute in marketing, publicity and market research of the products [6]. It has strongly impacted the strategic business considerations for banks by significantly cutting down costs of delivery and transactions [1]. Hence e-banking now plays a vital role to carry out the individual as well as corporate financial activities execution [11]. Because of the advent of information technology there is a change in the banking sector which has paved way for the introduction of retail electronic payment system and has progressed in the recent years in various countries [2]. It must be noted, however, that while e-banking provides many benefits to customers and banks, it also aggravates traditional banking risks [1]. In this era of modern technology, the implementation of e-banking services plays a significant role in helping financial institutions to remain competitive and adapt to the recent changes of the market [9]. The financial products and services have become available over the Internet, which has thus become an important distribution channel for a number of banks [1]. The success of Internet banking depends on the maturity, honesty and dedication of the people. Internet banking system has proved to be more versatile than a man [6].

The use of latest technology leads to the improved performance, cost effectiveness and increased efficiency[12].E-Banking is not something new to Pakistan. The first ever ATM machine was installed in 1987 in Pakistan. Till late 1990s, the installation and growth rate of ATM machine were remained low and slow [11]. Queue is common occurrence in daily life [13]–[15]. The progress of financial transactions by technology has been driven by variations in scattering networks as demonstrated by ATM (automated teller ma- chine), Mobile Phone-banking, Pc-banking, Telebanking and most recently internet banking [11]. The usage of internet banking has grown rapidly in the last decade, alongside the Internet [16]. In 2017, 64% of the total transactions were carried out by ATM machines, 0.40% were conducted through mobile banking, and 4% of them were conducted via internet in Pakistan [11]. One amongst consumers experienced problem with Internet and internet banking is privacy; which makes the security in transactions essential [16]. These findings indicate that what the respondents have most to complain about regarding Internet banking is the safety [16]. Aggressiveness is caused by anger and impatience [17], [18]. Studies has shown that younger segments are more willing to take risks than the older segments Regarding internet banking, the older segments are even more careful than usual,[16]. The service comes across as easy to use, fast, accessible etc., but even though the respondents found the usage positive, many found the safety negative [16]. Even e-banking activities based on the internet or virtual private networks own by the bank, therefore communication channel, distribution channel and transactions channel must be secure [11].One of the most important legal challenges for the e-banking system seems to be whether the general rules of contracts provide sufficient guarantees for the validity and necessity of electronic contracts [8].

# PROBLEM STATEMENT

With the advent of technological improvement, it was needed for the banks and so the customer to move towards the electronic banking [19]. E-Banking is phenomenon by which the products and services are automatically delivered to customers through electronicplatform[19].Recently, due the advancement in the field of information technology and the Internet benefits, banks have been seeking for the provision of number of services for their customers.Unavoidable challenges are coming in the way of growth and development of e-banking [8]. Apart from the benefits of, online banking; there are many challenges in the sector of online banking; which are noteworthy for both i.e. service provider and the end user, who operates effectively from the banks. It is needed for them to be aware of those challenges so that they can be overcome effectively [20]. In the present scenario, it is needed to identify the issues of E-banking on the side of customers so that the challenges for service providers can be identified. In this way, reluctance towards the usage of E-banking among the customer can be minimized for the good of both customers and service providers.

# AIMS AND OBJECTIVES

Since, online banking is very useful, cost effective and less time consuming technology (science of art); thus, banks are needed to implement this technology. Although all the banks are providing the online banking platforms i.e. ATMs, online funds transfer, online bill payment by concerned mobile app but in this scenario, the customers are reluctant to adopt this greatly useful platform. Therefore, the aim of present research is to highlight the barriers and challenges of online banking implementation at the customers` end.

* To highlight the advantages of online banking and drawbacks of traditional banking
* To highlight the factors affecting the implementation of online banking

# RESEARCH METHODOLOGY

The term literature review is the comprehensive representation of previously conducted research on the topic. It presents the already published knowledge on the topic and thereby the problem statement or the need for new analysis [21]. There are different types of literature reviews and the narrative is a kind of literature review by which the researchers collect the problems and their solutions on the specific topic; and narrative literature review is used for the analysis of literature review. It is used to be conducted on the use of technology and by which the broader picture of controversies, problems related to the use of technology is depicted [22]. This review method, provides backup for the analysis of debates, previous research evidence and also help to indicate the lack of available knowledge on the specific topic [23]. In this literature review, narrative review method was used for the analysis of literature.

## Data Collection

Since this is the literature review, therefore, secondary data was used in this research which was obtained from the previously published, empirical studies, review papers and case studies. Recent research was reviewed for the organization of present research.

## Data Analysis

The data/evidences which were collected form the research conducted in the past was organized into the tables and charts in MS excel.

# LITERATURE REVIEW

Literature review was split into various headings so that the similar body of knowledge could be organized separately. At the very first, traditional and online banking was described and then the factors were discussed in detail having an impact on the implementation of online banking.

# TRADITIONAL AND ONLINE BANKING

Banking is the lifeline of an economy. The present and future of any economy depends upon the success and development of banking [24]. Traditional banking is characterized by physical decentralization, with branches scattered around populated areas to give customers easy geographical access [25]. The physical banks also serve to assure customers that their bank has substantial resources and can guarantee the security of their savings [26].

|  |
| --- |
| Figure 1. E-banking services  Source: Drigă,I., Internetulpentruderularea de operaţiunibancare, TribunaEconomică,nr.5/2010 as cited by [27] |

Home banking, personal computer (PC) banking, mobile banking and internet banking were counted to be the services of E-banking as cited by [27] (see figure 1). The originator for the modern home online banking services were the distance banking services over electronic media from the early 1980s. The term online became popular in the late 80s and referred to the use of a terminal, keyboard and TV (or monitor) to access the banking system using a phone line. „Home Banking‟ can also refer to the use of a numeric keypad to send tones down a phone line with instructions to the bank. Online services started in New York in 1981 when four of the city`s major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotext system [24]. E-Banking is a generic term encompassing internet banking, telephone banking, mobile banking etc. In other words, it is a process of banking services and products through electronic channels such as telephone, internet, cell phone etc. [24]. Electronic banking is defined as “Delivery of bank’s services to a customer at his office or home by using Electronic technology can be termed as Electronic Banking [28]. Hertzum et al. (2004) defined E-banking as web-based banking. In other words, ebanking refers to the banking operations, which is done over the World Wide Web. More specifically, Internet banking refers to the deployment over the Internet of retail and wholesale (corporate) banking services [29]. E-banking has been viewed as a revolutionary progress in the banking industry [30]. Banking sectors are now re- engineering its processes, products, and systems to adopt the change and to be in the race of globalization [29]. Banking has never been more important to our society than it is today. The advance of communication and computer technology and the availability of the internet have made it possible that one can do most banking transactions from a remote location even without stepping into a physical financial structure [30].

Facing extremely intensive competition from non-banking sector, the banking industry has adopted a more aggressive approach in the development of new e-banking services [30]. The objective can’t be achieved with the traditional banking as now is the age of technology [24].

|  |
| --- |
| Figure 2. Electronic banking  Source: [1] |

E-banking has been taken from the concept of E-commerce and it is categorized under the concept of E-finance as given by [1] (see figure 2). There are many reasons for development and diffusion of online banking (Pikkarainen et al., 2004). The internet offers a potential competitive advantage for banks; this advantage lies in the areas of cost reduction and more satisfaction to customer needs [29]. The industry believes that by adopting new technology, the banks will be able to improve customer service level and tie their customers closer to the bank [30]. Internet banking is enhanced by the ability of customers to conduct banking transactions anytime and anywhere, faster and with lower fees compared with using traditional bank branches [29]. E- Banking does away with the need for most visits to the bank [25]. E-banking has become increasingly prevalent, employed by many financial institutions to reduce costs associated with having personnel serve customers physically, shorten processing periods, increase speed, improve the flexibility of business transactions and provide better service overall [26]. It is evident that banks and other financial institutions in developed and developing countries are embracing e-banking. As technology evolves, different kinds of electronic banking systems emerge, each bringing a new dimension to the interaction between user and bank [25].E-banking offers banking services outside of the normal opening hours (Rubino 2000). In fact, it has effectively “opened” banks for business twenty-four hours a day, seven days a week. Customers can do their daily banking activities without having to wait in line or wait on hold for telephone banking services [26].To fully utilise the potential of e-banking services, banks should be able to appreciate all possible benefits that may derive from the introduction of e-banking facilities. Information pertaining to the facilities provided by the banks are normally posted on their websites (Balachandhler et al., 2003; Diniz, 1998) which can be described as informational, transactional, or beyond transactional [26].Realizing this fact, academicians and practitioners highlighted in their studies that information source in banks was of capital importance and they looked at information technology as strategic response to changing financial environment/challenges [28].In the past few years, the banking sector has completely transformed. The banks are facing many challenges and many opportunities are available with the banks. Many financial innovations like ATMs, credit cards, RTGS, debit cards, mobile banking etc. have completely changed the face of Indian banking. But still there is a need to have more innovative solutions so that the challenges can be solved and opportunities can be availed efficiently by the Indian banks [28].Rasulov, Javad 2012 has discussed the goals of E-banking system by the help of diagram shown below (figure 3) as cited by [8].

|  |
| --- |
| Figure 3. Purposes of Electronic banking system  Source: from Rasulov, Javad 2012 as cited by [8] |

The main objective behind integrating banking services with technology is, undoubtedly, convenience. Technology has now become familiar to most individuals, to an extent that it influences their lifestyle. It, then, becomes vital for businesses to distinguish themselves in the digital space with unique offerings.Security remains part of the core services that banks can offer, and for this reason, the interfaces with simplicity work best. More customers are acclimatizing to mobile platforms, and more users are using online platforms at a much younger age. Due to these reasons, there is an undoubted power that can be leveraged through digital channels. In order to tap into the power of digitization, however, there are a number of challenges that need to be overcome [20].

## Factor Affecting the Use Online Banking

There are number of issues having the impact on the customers` intension of adopting internet banking [28]. The issues which are focused as per the scope of this thesis are discussed under the below given headings in the gravity of literature.

|  |
| --- |
| Figure 4. Problem encountered by banks in Pakistan  Source: (Zahoor et al., 2017) [11] |

A look at the figure 1 indicates that there has been a long journey to solve and minimize the problems of online banking services. Figure 5 presents the concept of technology acceptance theory (TAM) from Davis, Bagozzi&Warshaw, 1989 as cited by [16].

|  |
| --- |
| Figure 5. Technology acceptance model from Davis, Bagozzi&Warshaw, 1989 as cite by [16] |

It was illustrated by theory that ‘perceived ease of use (PEOU)’ impacts the people behaviors about computer acceptance, their attitudes towards its usage and it is determined by behavioral intensions and which is jointly determined by attitudes towards using and perceived usefulness.

### Customers` Awareness

The revolutionary online banking is being accepted by the customers with growing awareness and education [31]. Therefore, lack of awareness regarding e-banking services and their benefits is one of the main factors which has been highlighted as hurdle in the way to adoption of e-banking [32][29][24][33][34][7]. Unfamiliarity of customer with internet is big problem especially in the senior citizens [28]. If the customer avails the service provided, it is therefore, responsibility of the service provider to make him aware about the service and its benefits. Therefore, in order to achieve the highest satisfaction of customer on the e-banking channels, then he should be provided the complete information regarding the various offered products and services [35]. Though all banking sector is providing e-banking, the main question is whether the customers are aware of all the e-banking services offered by their banks. So, it becomes necessary to study the customer awareness level towards e-banking services [36].It has been suggested by Ingle and Pardeshi (2012) that an awareness campaign may be started to make people aware of useful benefits of internet banking, like easy purchase, pay their bills, and make transactions from their offices and home. This thing may give enough awareness to more customers that they may start asking their bank about internet banking [37].Since, it is the era of smart mobile phones and it is quite easy for the user to install the app on his mobile. In this regard, it is also necessary to create awareness about the mobile banking so that more and more people use it for their benefit [38].

### Infrastructural issues

Many of the factors affecting the successful adoption of new technologies such as e- commerce and E-banking are generic in nature and that the successful adoption of internet technologies in part depends on how these are used in conjunction with the other technologies and management practices that form a technology cluster. However, the most critical challenges can be ascribed to the very limited information and communication infrastructure available in most developing countries. This infrastructural challenge makes the bank not to provide e-banking service and also makes the customers not to use e-banking services properly [34]. Success or failure in Internet banking is greatly determined by the integration of technology infrastructure with the business processes [29]. The decentralization approach is motivated by the fact that a decentralized system could respond to customers’ e-requests in a timely fashion. In fact, the most criticized aspect of the current e-banking service is the slow response to customers’ e-requests [28]. Proper completion of transaction from beginning till end is the prime concern of users of internet banking. Unfortunately they face problems during the process of transactions and many times they have to restart the whole process from beginning [28].Some new e-banking services have gained a growing popularity such as e-payments and statement aggregation involving e-mail statements, e-mail alerts, online loan decisions [30],

### Legal and security issues

Internet banking increases convenience, but as it also opens a bank to security issues [33]. The improvement of online banking and its increased use by consumers worldwide has made this service a privileged target for cyber criminals although banks have set up security systems to ensure that transactions conducted online are protected from internet security threats [27]. The usage of e-banking significantly affects the customer trust due to unavailability of cyber security [11]. The problem related to the security has become one of the major concerns for banks. A large group of customers refuses to opt for e-banking facilities due to uncertainty and security concerns [2]. E-banking security is all about the fraud protection [30].Internet banks collect and keep some very important personal information from each client. As Internet technology advances, so does the ability of criminals to hack into an Internet bank and steal important client information, according to financial expert Steve Ellis, writing on the Computer World website. Security threats can come from inside or outside the system, so banking regulators and supervisors must ensure that banks have appropriate practices in place to guarantee the confidentiality of data, as well as the integrity of the system and the data. Banks' security practices should be regularly tested and reviewed by outside experts to analyze network vulnerabilities and recovery preparedness [10]. Internet banks must constantly update security measures and stay updated on the latest viruses and hacker tools in order to protect client information [10].Uncertainty about the validity of some agreements formed through electronic media and law regarding customer disclosures and privacy protection leads to legal risks in internet banking. Customers who have inadequate information about their rights and obligations may not take precautions when using the online banking services. This leads to unwanted suits against the bank or other regulatory sanctions and disputed transactions [33]. Security awareness among the customers is also a factor which is improving as usage of internet banking is increasing [37].

## Related Literature Review

There has been a lot of research is conducted on the online banking in terms of challenges faced by service providers.

One of the descriptive research was conducted by Beatrice (2017) in Kenya, in which questionnaire was used for data collection. Research investigated the challenges faced by the internet banking. Challenges were indicated by the study were i.e. poor internet speed, customer awareness, lack of alerts of internet banking, less penetration in the market and the reception of online banking services. Research also highlighted the transaction security issues in the banks. It was concluded that the degree of awareness among the customer regarding internet banking is quite less; that`s why it was recommended to train the banks` employees so that they could pass on the gained knowledge of online banking towards the customers [33].

Study was conducted by Rahman et al, (2017) with the objective to examine the current scenario, prospects and problem of online banking (Dutch-Bangla Bank Limited) in Bangladesh. Data was collected by conducting interviews. There were 11 questions in the interview and 100 interview were conducted from the registered clients of the bank. It was concluded that customers of the bank had not enough knowledge about the e-banking services [7].

Deep literature review was conducted in Iran by Alikhani and Zare (2018) in which the issues and challenges of electronic banking rules are highlighted. In the research, legal challenges are examined for the development of electronic banking systems so that solution of those issues can be suggested. It was concluded that, the rules for the customer protection were incomplete in terms of electronic banking and on the same time, there was no clear judicial procedure thereof [8].

Phuong Nam (2014) conducted research on the implementation process of electronic banking services in Vietnam. There were two objectives in the study: 1) to uncover the reasons and stimuli for the implementation of electronic banking services; 2) to investigate the implementation process and highlight the challenges faced during the process. It was concluded that the expansion of market and the satisfaction of customers were the major motivations behind the implementation of the electronic banking; and the major challenge was the lack of knowledge (regarding the electronic banking) among customer and their unwillingness [9].

AmeenaFarooqui and P. Rajani (2017) conducted as research with the objective of examining progress of Indian banks in the context of internet banking. On the same time, challenges faced by Indian banks were also highlighted. The internet banking users increase from 193204330 (in 2013) to 462124989 (in 2016); which indicated that there was successful implementation of internet banking in Indian banks. Highlighted factors were; i.e. security risk, trust factor, customer awareness, privacy risk, strengthening the public support, availability of personnel services, competition, implementation of global technology etc.[2]

Hussain et al. (2017) indicated internet accessibility in banking sector as a reason for customer reluctance to access their bank accounts online in Pakistan. Because unavailability of cyber security, customers` trust is significantly affected by the use of electronic banking. Furthermore, authors highlighted the issues of electronic banking i.e. technological issues, ATM link network issues, security issues, non-technical personnel[11].

Al-Weshah (2013) concluded that internet banking provides many available opportunities to bank improvement such as easy and quick banking services, cheap communication tools with customers, new banking products and services to bank customers, and effective control about banking system errors. On the other hand, internet banking encounters many potential challenges in bank improvement such as lack of customers' trust and safety, lack of employees’ participation in banking industry improvement, and lack of relevant employees’ skills and capabilities in internet applications due to lack of effective training for bank employees[29].

Ashoka and Vinay M.L (2016) conducted survey in Mysore District reveal that the corresponding percentage in respect of rural customer is only 60 percentage with the total sample size of 179 the percentage for E- Banking in the aggregate group counts for 80 percentage the main reason for non-patronization of E – Banking is illiteracy and fear of losing money when E – Banking is practiced [39].

The association between demographic characteristics and the satisfaction of customers for internet banking was investigated by Kumbhar, Vijay (2011); moreover, association between service quality and customer`s satisfaction was also investigated he also investigate the relationship between service quality and customers' satisfaction as well as satisfaction in internet banking service provided by the public sector bank and private sector banks. The study found out that overall satisfaction of employees, businessmen and professionals are higher in internet banking service. Also it was found that there is significant difference in the customers' perception in internet banking services provided by the public and privates sector banks [40].

According to Nath Ravi &Schrick Paul (2001), In every business, the way the business is conducted is being transformed by e-commerce. Outdated business models are replaced by the new ones. On the same time, organization are pondering over the modification of strategies of customer relationship management and business process design. Banks are not compromising on this transformation. In the present research, views of bankers are examined on the provision of banking services via website. Results of the research indicated that internet banking in its infancy age and its offered by less number of banks; total internet banking benefits are remaining to be realized by number of banks for its implementation [41].

Pooja Malhotra and Balwinder Singh (2009), briefly indicated the present condition of internet banking in India. This research was conducted to look for the relationship between internet banking adoption and performance of bank and the risk. It has been indicated by the research that, internet banking has the significant and negative association with the risk; from which it becomes clear that risk profile of banks is not increased by the internet banking adoption in banks [42].

# SUMMARY OF LITERATURE

Literature review indicates various issues in the way to implementation and adoption of e-banking by the customers. Table 1 presents the findings and analysis of the previously conducted research work on the challenges of e-banking. Most the research were written by the Indian researchers from different cities.

Table 1. Summary of the literature review

|  |  |  |
| --- | --- | --- |
| **Reference** | **Country** | **Analysis/Finding** |
| [42] | India | 57% of the banking sector provided the facility of online transaction. The banks providing internet transaction facilities were counted to be larger and more efficient and profitable banks as compared to those which were operating traditionally. Risk profile of the bank was in significant relationship with the internet banking. |
| [37] | India | This paper aimed to highlight the challenges and opportunities of internet banking in India. Moreover, this paper also discuss the marketing strategies (competition, cost effectiveness, geographical reach, branding, customer demographics, convenience, obliquity, transaction speed, transaction speed, efficiency and effectiveness) for online banking. |
| [43] | India | Author conducted a research based on secondary data and analytical methods. He analyzed the improvement brought the by technology in the banking sector by using, averages, percentages and simple growth rate. |
| [35] | India | Customer level of awareness about E-banking was analyzed by collecting the primary and secondary data. Results indicated that most of the people did not have any idea about the e-banking. |
| [30] | Georgia | Development of E-banking applications were analyzed in in rural areas of the country and their impact on the financial institutions was also investigated. It was concluded that less number of customers of e-banking was not because of unawareness but lack of effective promotional strategies. |
| [10] | India | Highlighted the challenges of E-banking and suggested the policy implications for making the e-banking effective. |
| [1] | India | Acquainted the e-banking and its benefits and at the same time, the challenges and barrier of it were also reviewed. |
| [8] | Iran | Legal challenges of e-banking were investigated by authors as per the perspective on Iranian policies. |
| [38] | India | Reviewed the challenges in the adoption of e-banking services by customers. They concluded the main challenge as the security of financial systems. |
| [44] | Pakistan | Reported e-banking issues in Pakistan i.e. IT telecommunication infrastructural issue, capacity issue, website design issue, security issue, trust issue and money laundering issue. |
| [28] | India | Reviewed the challenges and opportunities of e-banking in the present market. |

The most highlighted and important among all the reported issues was legal and security issue. Since, it will not be safe for the customers to leave their money in accounts then obviously they will barely rely on the electronic banking.

# RESEARCH GAP

It was indicated from the literature review that most of the collected research papers were based on the bankers` perspective, country`s rules and regulations perspective, two banks` comparison perspective etc.Therefore, it is needed to be conducted the review in the customer perspective so that the customers` desires and way of looking at e-banking can be highlighted for the greater good of customers and the banking sector.

# DISCUSSION

The concept of banking activities came into existence in 18th century BC [37]. This phenomenon has the capability to basically transform the banks and so the banking industry. And speculation from the extreme views have come out that this phenomenon will abolish the models and the way how bank services were established and used [42]. On the top, the benefit of e-banking is the increased customer satisfaction [1]. Esther and Rajasekaran indicated that there were many people who don`t know about the e-banking and they suggested to banks that the customers should be assured the safety and security of their transactions [35]. Yang et al, 2007 concluded that there were less number customers of E-banking in Georgia not because of lack of awareness but because lack of effective promotional strategies [30]. PremchandNarware, 2016 indicated E-banking the ideal future banking mode and it will overcome the traditional banking undeniably [43]. The greater use of internet services has promoted the businessmen since so long to sell their products anywhere by using internet [37]. The banks providing the platform of online transaction were categorized as larger, more profitable and efficient banks [42].

Ingle and Pardeshi, 2016 reviewed the marketing strategies for online banking; strategies included competition, cost effectiveness, geographical reach, branding, customer demographics, convenience, obliquity, transaction speed, transaction speed, efficiency and effectiveness [37]. Bahl, 2012 suggested policy implications for E-banking: which included licensing, verifying an individual's identity, security, capacity planning, consumer education, adaption, legalization, harmonization and integration [10]. Alikhani and Zare concluded many challenges in the way to implementation of e-banking i.e. legal and financial regulative issues, process issues, organizational culture issues, system and infrastructural issues and above all the legal challenge was reported in Iran [8]. Gurme, 2011 conducted a review and concluded that the main challenge for the adoption of e-banking by the customer was the security of financial system because anyone could easily operate it [38]. Kazmi and Hashim reported e-banking issues in Pakistan as; IT telecommunication infrastructural issue, capacity issue, website design issue, security issue, trust issue and money laundering issue [44]. Lakshmi Bhai, 2018 reviewed the problems of e-banking as: confidentiality, integrity, authentication, customer satisfaction, availability of personnel services, competition, handling technology, security risk, privacy risk, trust factor, customer awareness and less internet penetration in Indian context [28].

Rahman et al., 2017 when asked the questions from the respondents through his already developed questionnaire that “electronic banking is easy to operate” then 64% of them replied yes and rest of 36% replied no [7]. Lusaya and Kalumba, 2018 asked the question from his respondents about the E-banking usage; 42% answered no and rest of 28% respondents answered yes: moreover, from that 58%, 8% of them use e-banking for funds transfer, 2% for bill payment and rest of 48% used it for other cash transactions [19]. Yahiya conducted a research in which he presented the results as: 74.4% users of e-banking were individuals, 11.2% were small and medium enterprises and rest of 14.4% were corporates [25].

# CONCLUSION

At the time of traditional banking, there was number of operational problems i.e. slow retrieval of data, greater chance of fraud, greater efforts of customer for transaction. Because of these issues, electronic banking was introduced into the banking sector. There are number of benefits of electronic banking and on the same time, there are number of issues are there in the way of e-banking to be fully adopted by the customers.The customers preserve their funds and money in bank for the future needs, businesses and for belongings and they want to be assured in terms of safety of their reservoirs. Since, many of the researchers has reported the security issue in the way to successful adoption of e-banking by the customers [1]–[3], [6]–[11], [16], [19], [20], [24]–[40], [43]–[48], [48]–[52]. Therefore, it is of highest need to focus the transactional security on the e-banking phenomenon. There is number of customers who are using the services of internet banking so it when there is the question of challenges about e-banking; customer awareness should not be found in the answer but the lack of promotional events regarding the e-banking.

# FUTURE IMPLICATIONS

The purpose of the bank is to assure safety to its customer and that is possible by the technical and justifying knowledge. There are some serious issues about internet banking such as lack of promotions about e-banking and legal and security issues, the reviews on the mentioned areas can be conducted for the clear understanding of the problem.

# ACKNOWLEDGEMENT

We thank our supervisor for his support in conducting our research on this topic.

# CONFLICT OF INTEREST

There was no conflict of interest between the authors of present research paper.

# REFERENCES

[1] J. Chavan, “Internet Banking- Benefits and Challenges in an Emerging Economy,” *Int. J. Res. Bus. Manag.*, vol. 1, no. 1, pp. 19–26, 2013, [Online]. Available: https://www.academia.edu/13233924/INTERNET\_BANKING-BENEFITS\_AND\_CHALLENGES\_IN\_AN\_EMERGING\_ECONOMY.

[2] A. Farooqui and P. Rajani, “E-Banking Issues & Challenges,” *IOSR J. Bus. Manag.*, vol. 19, no. 10, pp. 31–39, 2017, doi: 10.9790/487X-1910063139.

[3] N. M. Anand, “E-Banking Trends in India : Evolution , Challenges and Opportunities,” *Shanlax Int. J. Manag.*, vol. 3, no. 2, pp. 107–117, 2015.

[4] M. A. Kalwar and M. A. Khan, “Optimization of Procurement & Purchase Order Process in Foot Wear Industry by Using VBA in Ms Excel,” *Int. J. Bus. Educ. Manag. Stud.*, vol. 5, no. 2, pp. 80–100, 2020.

[5] M. S. Arain, M. A. Khan, and M. A. Kalwar, “Optimization of Target Calculation Method for Leather Skiving and Stamping: Case of Leather Footwear Industry,” *Int. J. Educ. Manag. Stud.*, vol. 7, no. 1, pp. 15–30, 2020, [Online]. Available: https://www.questia.com/library/journal/1P3-4312702391/influence-of-organizational-climate-on-job-performance.

[6] I. D. Adewuyi, “The Challenges of Internet Banking in Developing Countries,” *Niger. Acad. Forum*, vol. 9, no. 2, pp. 2–5, 2005.

[7] M. Rahman, N. K. Saha, M. N. I. Sarker, A. Sultana, and A. S. Prodhan, “Problems and Prospects of Electronic Banking in Bangladesh: A Case Study on Dutch-Bangla Bank Limited,” *Am. J. Oper. Manag. Inf. Syst.*, vol. 2, no. 1, pp. 42–53, 2017, doi: 10.11648/j.ajomis.20170201.17.

[8] M. Alikhani and A. Zare, “Reviewing the Issues and Challenges of Electronic Banking Regime in Iran,” *Economics*, vol. 7, no. 1, pp. 1–9, 2018, doi: 10.11648/j.eco.20180701.11.

[9] P. N. Dao, “Implementation of E-banking in Vietnam: Motivations and challenges – Case Company A,” 2014.

[10] S. Bahl, “E-Banking: Challenges & Policy Implications,” 2012.

[11] Z. Hussain, D. Das, Z. A. Bhutto, M. Hammad-u-Salam, F. Talpur, and G. Rai, “E-Banking Challenges in Pakistan: An Empirical Study,” *J. Comput. Commun.*, vol. 05, no. 02, pp. 1–6, 2017, doi: 10.4236/jcc.2017.52001.

[12] M. A. Kalwar and M. A. Khan, “Increasing Performance of Footwear Stitching Line by Installation of Auto-Trim Stitching Machines,” *J. Appl. Res. Technol. Eng.*, vol. 1, no. 1, pp. 31–36, 2020.

[13] M. A. Kalwar, S. I. Mari, M. S. Memon, A. Tanwari, and A. A. Siddiqui, “Simulation Based Approach for Improving Outpatient Clinic Operations,” *Mehran Univ. Res. J. Eng. Technol.*, vol. 39, no. 1, pp. 153–170, 2020, doi: 10.22581/muet1982.2001.15.

[14] M. A. Kalwar, S. A. Khaskheli, M. A. Khan, A. A. Siddiqui, and M. A. Gopang, “Comfortable Waiting Time of Patients at the OPD with Varying Demographics,” *Ind. Eng. Lett.*, vol. 8, no. 2, pp. 20–27, 2018.

[15] S. A. Khaskheli, H. B. Marri, M. Nebhwani, M. A. Khan, and M. Ahmed, “Compartive Study of Queuing Systems of Medical Out Patient Departments of Two Public Hospitals,” in *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 2020, vol. 1913, pp. 2702–2720.

[16] T. Josefsson, “Challenges with Internet banking,” pp. 1–11, 2017.

[17] M. A. Kalwar, M. A. Khan, S. A. Shaikh, A. Salam, M. S. Memon, and S. A. Khaskheli, “Aggressive Driving Behavior : A Case Study of Mehran UET ,” in *Proceedings of the International Conference on Industrial Engineering and Operations Management Dubai,* 2020, pp. 2350–2359.

[18] S. A. Khaskheli, M. A. Kalwar, A. A. Siddiqui, M. A. K. Nagar, and T. H. Wadho, “Impatience Among Drivers With Varying Demographics,” in *Professional Trends in Industrial and Systems Engineering*, 2018, pp. 465–469.

[19] S. Lusaya and B. Kalumba, “The Challenges of Adopting the Use of E-Banking to the Customers : The Case of Kasama District Banking Customers,” *Sch. J. Appl. Sci. Res.*, vol. 1, no. 2, pp. 26–31, 2018.

[20] P. Revathi, “Digital Banking Challenges and Opportunities in India,” *EPRA Int. J. Econ. Bus. Rev.*, vol. 7, no. 12, pp. 20–23, 2019, doi: 10.36713/epra2985.

[21] A. S. Denney and R. Tewksbury, “How to Write a Literature Review,” *J. Crim. Justice Educ.*, pp. 1–17, 2012, doi: 10.1080/10511253.2012.730617.

[22] S. Frennert and B. Östlund, “Narrative Review: Welfare Technologies in Eldercare,” *Nord. J. Sci. Technol. Stud.*, vol. 6, no. 1, pp. 21–34, 2018, doi: 10.1353/sym.2003.0023.

[23] R. Ferrari, “Writing narrative literature reviews,” *Eur. Med. Writ. Assoc.*, vol. 24, no. 4, pp. 230–235, 2015, doi: 10.1037/1089-2680.1.3.311.

[24] A.SUNITHA, “E- BANKING IN INDIA : INNOVATIONS , CHALLENGES AND,” *Anveshana`s Int. J. Res. Reg. Stud. Law, Soc. Sci. Journal. Manag. Pract.*, vol. 1, no. 4, pp. 30–40, 2016.

[25] S. Yahiya, “Prospects and Challenges of Electronic Banking in Ghana- A Case Stdy of the SG-SSB Limited,” Institute of Distance Learning, Kwame Nkrumah University of Science and Technology, 2011.

[26] A. Sulaiman, L. C.H, and A. WEE, “Prospects and Challenges of E-Banking In Malaysia,” *Electron. J. Inf. Syst. Dev. Ctries.*, vol. 22, no. 1, pp. 1–11, 2005, doi: 10.1002/j.1681-4835.2005.tb00139.x.

[27] C. Isac and I. DRIGĂ, “E-Banking Services – Features, Challenges and Benefits,” *Ann. Univ. Petrosani Econ.*, vol. 14, no. 1, pp. 49–58, 2014.

[28] L. B. P.S, “ E-BANKING IN INDIA - PROBLEMS AND PROSPECTS,” *Tech. Res. Organ. India*, vol. 5, no. 1, pp. 77–81, 2018.

[29] G. A. Al-Weshah, “The role of internet banking in continuous improvement areas: Quantitative evidence from Jordanian banks,” *Int. J. Bus. Perform. Manag.*, vol. 14, no. 2, pp. 181–196, 2013, doi: 10.1504/IJBPM.2013.052950.

[30] J. Yang, M. Whitefield, and K. Boehme, “New issues and challenges facing e-banking in rural areas : an empirical study,” *Int. J. Electron. Financ.*, vol. 1, no. 3, pp. 336–354, 2007, [Online]. Available: http://inderscience.metapress.com/index/d8mt84hx6125ehw5.pdf.

[31] Monisha, K. Bhudhiraja, and K. Kaur, “Electronic Banking in India: Innovations, Challenges and Opportunities,” *Int. J. Eng. Res. Technol.*, vol. 5, no. 11, pp. 86–93, 2017, [Online]. Available: www.researchpublish.com.

[32] M. Karimzadeh and D. Alam, “Electronic Banking Challenges in India : an Empirical Investigation,” *Interdiscip. J. Contemp. Res. Bus.*, vol. 4, no. 2, pp. 31–45, 2012.

[33] C. Beatrice, “CHALLENGES FACING INTERNET BANKING: A CASE STUDY OF FAMILY BANK LIMITED IN NAIROBI,” United States International University-Africa, 2017.

[34] A. Fetu, “Opportunity and Challenges of Electronic-Banking System in Commercial Bank of Ethiopia (A Case Study on Gurage Zone),” *J. Account. Financ. Audit. Stud.*, vol. 5, no. 2, pp. 106–122, 2019, doi: 10.32602/jafas.2019.23.

[35] M. Esther and R. Rajasekaran, “Commerce A Study on Customer Awareness Towards E-Banking Services in Coimbatore City,” *Indian J. Res.*, vol. 4, no. 9, pp. 230–233, 2015.

[36] S. Kumar, “a Study on Consumer Awareness and Usage of E-Banking Services,” pp. 151–157, 2015.

[37] A. Ingle and R. Pardeshi, “Internet Banking in India: Challenges and Opportunities,” *IBMRD’s J. Manag. Res.*, vol. 1, no. 1, pp. 13–18, 2012, doi: 10.1017/CBO9781107415324.004.

[38] V. M. Gurme, “Issues and Challenges in Mobile Banking In India : A Customers’ Perspective,” *Int. Res. J. Eng. Technol.*, vol. 6, no. 1, pp. 161–163, 2011.

[39] A. M L. and V. S., “Problems And Prospects Of E-banking Services - An Empirical Study in Mysore District,” *J. Chem. Inf. Model.*, vol. 2, no. 2, pp. 14–23, 2016, doi: 10.1017/CBO9781107415324.004.

[40] V. M. Kumbhar, “Service Quality Perception and Customers’ Satisfaction in Internet Banking Service: A Case Study of Public and Private Sector Banks,” *Cyber Lit. Int. Online J.*, vol. 4, no. 2, pp. 21–30, 2011.

[41] N. Ravi and P. Schrick, “Banker s Perspective on Internet Banking,” *E-Service J.*, vol. 1, no. 1, pp. 21–36, 2001.

[42] P. MALHOTRA and B. SINGH, “The Impact of Internet Banking on Bank Performance and Risk: The Indian Experience,” *Eurasian J. Bus. Econ.*, vol. 2, no. 4, pp. 43–62, 2009, doi: 10.1057/palgrave.jbr.2340189.

[43] P. Narware, “E-BANKING – CHALLENGES & POLICY IMPLICATIONS,” *Int. J. Enterp. Comput. Bus. Syst.*, vol. 6, no. 2, 2016.

[44] S. S. A. Kazmi and M. Hashim, “E-Banking in Pakistan: Issues and Challenges,” *Int. J. Acad. Res. Bus. Soc. Sci.*, vol. 5, no. 3, pp. 50–54, 2015, doi: 10.6007/ijarbss/v5-i3/1498.

[45] Z. Liao and M. T. Cheung, “Challenges to internet e-banking,” *Commun. ACM*, vol. 46, no. 12, pp. 248–250, 2003, doi: 10.1145/953460.953507.

[46] R. Nagaraj and D. P. Jegatheeswari, “A Study on the Customer Awareness of E-Banking Services in Madurai City,” *Ijsdr*, vol. 1, no. 8, pp. 219–234, 2016.

[47] J. Jasmine and A. Rajan, “A Critical Study on Concept of E Banking and Various Challenges of IT in India with Special Reference to RBI"S Role in Safe Banking Practices,” *Int. J. Pure Appl. Math.*, vol. 119, no. 17, pp. 1661–1676, 2018.

[48] A. D, “A Study of Consumer Awareness towards e-Banking,” *Int. J. Econ. Manag. Sci.*, vol. 5, no. 4, pp. 4–7, 2016, doi: 10.4172/2162-6359.1000350.

[49] M. Kinfe, “Challenges and Prospect of E-Banking in Ethiopia,” 2016.

[50] T. Amsaveni and M. Kanagarathinam, “A Study on Consumer Awareness of E-Banking Services in Public Sector Banks in Coimbatore,” *Ijariie*, vol. 3, no. 2, pp. 908–916, 2017.

[51] “Chapter I Industryanalysis 1 . 1 . Introdction of Banking Industry Banking :,” no. 1.

[52] A. D, “A Study of Consumer Awareness towards e-Banking,” *Int. J. Econ. Manag. Sci.*, vol. 5, no. 4, 2016, doi: 10.4172/2162-6359.1000350.