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A Descriptive Study of Consumer Acceptance of E-Banking in Pakistan

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Abstract

Electronic banking has transformed the consumer banking experience in Pakistan and globally. Present study proposes to explore the e-banking experience of consumers in Pakistan and identify the factors pivotal to acceptance of e-banking services among consumers in Pakistan. A cross-sectional survey design was employed to study a selected sample of 440 active bank customers from different areas of Pakistan selected through purposive sampling technique. The sample included representation of both women and men with mean age of 31 (SD= 10.03) years. A majority of the participants were frequent users of e-banking services and used it for various purposes. Perceived usefulness, trust, ease of use, safety and reliability were found to be affecting the frequency at which e-banking services were utilized. Results revealed significant gender differences in preferences of e-banking adoption. Residential settings, educational level and income of consumers were noted to be associated with varying aspects of e-banking adoption. The findings of the present study provided useful insights into the factors that shape consumers' e-banking adoption decisions and will be helpful for banks to tailor their services and marketing efforts in order to meet the preferences and needs of their customers.

Keywords: *Electronic Banking, Consumer Acceptance, E-banking Adoption, Consumer Satisfaction, Ease of Use, Safety, Accessibility.*

Introduction

Electronic banking employs telecommunication networks and electronic sources to provide various banking services and products. Customers can access their account and perform a variety of transactions at their convenience through devices. Essentially, e-banking is an electronic payment system that allows transactions through a websource operated by a retail bank, credit union or virtual bank (Caranza et al.,2021). It is also commonly referred to by other names such as virtual banking and internet banking (Reddy & Megharaj, 2021). It has revolutionized the banking industry by providing customers with the flexibility of conducting banking activities at any time, from anywhere as long as they have internet access. The introduction of internet banking was initially used as a tool for advertising services and communicating

with customers; however, with technological advancements, banks have been able to make online transactions safe and more economical (Rocio et al., 2021). The availability of e-banking services has become essential for banks to survive, as it allows them to offer better services at a lower cost (Hussain et al., 2017). E-banking also provides consumers with a broad range of services, like paying bills and purchasing items and services online (Caranza et al.,2021). As this service continues to develop, it may soon be possible to make all cash transactions online (Jolly, 2016).

E-banking services began in 1980s and referred to a banking medium that allowed customers to access the banking system using a terminal, keyboard, and monitor via a phone line. This system was also referred as "Home Banking" and was introduced in New York by Citi Bank and other leading banks in 1981 (Sanli & Hobikoğlu, 2015). However, it could not gain popularity in most countries due to the failure of the videotex system. In 1983, e-banking service were introduced first in the United Kingdom by Bank of Scotland through the Prestel system, called Homelink, which allowed consumers to access bank statements online, make online fund transfers, and pay bills online. The Stanford Federal Credit Union in 1994 became the first institution to offer e-banking to all its members. Nowadays, many banks function solely as internet-only banks, providing better interest rates and internet banking facilities.

During past few decades E-banking has gained widespread acceptance globally, and Pakistan is no exception with a high ratio of technology acceptance. Various banks in Pakistan offer e-banking services to consumers to achieve cost advantages (Illyas et al., 2013). E-Banking was introduced in Pakistan in 1987 through installation of the first ATM machine. However, it wasn't until the late 1990s that the growth rate of ATM machines and card issuance began to increase significantly. In 2002, the state bank of Pakistan made it mandatory for account holders to get the ATM card at every bank playing a crucial role in the evolution of e-banking in Pakistan through supportive atmosphere. As the economy in Pakistan grew, so did financial activities, leading to benefits for ATM networks, such as providing innovative solutions for account holders like cost-effective, fast, easy and secure ATM links (Hussain et al., 2017). Currently, banks in Pakistan offer several services to their customers including payment of utility bills and inter and intra-banking transaction facilities (Najaf et al., 2014). This has led to the introduction of the branchless banking concept and various types of cards like credit cards, debit cards and visa cards to enhance the banking experiences. The SBP has also introduced new rules to improve the quality of services provided by various banks in Pakistan, ensuring that account holder services are not compromised (Siddiqi, 2013).

The use of e-banking is reported to be effected by several factors such as accessibility (Acosta-Vargas et al, 2022). Perception that e-banking is easy to use is instrumental to develop favorable attitude towards adoption of e-banking (Mohammadi, 2015). Since the start safety has remained one of the most pertinent factors influencing the acceptance of e-banking services around the world (Hussain et al., 2017). Many consumers adopt e-banking for it being convenient, cost effective (Hussain et al., 2021) and useful compared to conventional banking services (Mohammadi, 2015; Reepu & Arora, 2022). Another factor which makes many consumers incline towards e-banking is their perceived trust on e-banking service provider being reliable and trustworthy (Yu et al., 2015). The studies that assessed the evolution and adoption of e-banking in Pakistan indicated the amount of information, privacy and security as significant factors influencing acceptance and or adoption of e-banking in banking consumers in Pakistan (Illyas et al., 2013).

In Pakistan E-banking has emerged as a new channel for consumers to experience efficient and convenient banking service. Despite the exponential growth of e-banking services worldwide, adoption of e-banking still remains slow in Pakistan. This can be attributed to several factors, including a lack of awareness and trust on e-banking service providers, weak IT infrastructure, and concerns regarding privacy and security. Therefore, understanding the factors that influence the acceptance of e-banking services by consumers in Pakistan is crucial for banks to develop effective marketing strategies and provide customers with a positive experience.

Literature Review

The widespread adoption of electronic banking has revolutionized the way individuals conduct financial transactions. A thorough literature review provided good insight of the existing body of knowledge available in Pakistan and elsewhere.

Shaikh and Karjaaluoto (2014) conducted a systematic review of studies on adoption of mobile banking between 2005 and 2014. They reviewed 55 studies in 48 journals and reported that e-commerce had a marked impact on global business but technologies also focused more on mobile commerce. mobile computing and wireless web services. Mobile banking had emerged as a distinguished distribution channel, with sizeable studies focused to note its adoption. Conceptual and empirical research activities related to mobile banking acceptance increased and grew increasingly pervasive since 2009. However, they also noted significant limitations in the literature from being fragmented to have small sample sizes drawn from both developing and developed countries. Furthermore, most studies explained adoption of mobile banking using the technology acceptance model (TAM). Most studies identified attitude, perceived usefulness and compatibility (with device and lifestyle) as the most significant contributors of mobile banking service adoption in both developing and developed countries. Moreover, several dependent and independent variables could be identified as prominent in investigations of the consumer decision-making process for m-banking. Also, literature on SMS banking in developing countries appeared to be limited, virtually no research addressed the use of m-banking through tablets or smartphones. The authors gave several suggestions for continued investigation on adoption of m-banking that evolved as a pertinent distribution platform.

Kazmi and Hashim (2015) conducted a study on E-banking in Pakistan, according to the study, online banking services are becoming increasingly popular in the banking sector as they offer customers convenient access to their accounts from their web-enabled devices. The research aimed to identify the major issues and challenges linked with establishing the e-banking services and highlighted benefits of electronic banking services, including the potential for banks to provide better services to customers and reduce operating costs. E-banking is seen as an important aspect of banking sector development in today's globalized world. By addressing the challenges and issues faced in the e-banking industry, banks can improve customer loyalty and satisfaction. It is recommended that banks consider their customers' demands and preferences to achieve successful feedback from the public. Furthermore, the study suggests that banks should enhance the speed, effectiveness and efficiency of their electronic banking services to remain competitive in the market.

Agha and Saeed (2015) investigated the factors that impact consumer's acceptance of e-banking services in Pakistan. An extended TAM was used as a conceptual framework to identify determinants of customer acceptance. Detailed questionnaires were administered online and in person to collect data from Islamabad and Rawalpindi. The study concluded that perceived usefulness, perceived credibility and social risk affected consumer's acceptance of e-banking significantly in Pakistan. It was identified that perceived usefulness and perceived credibility had significant positive relationship with consumer acceptance. However, social risk revealed to have significant inverse influence on consumer acceptance, suggesting that opinions of others matter a lot to people in the collectivist society of Pakistan. The study also highlighted that technophobia moderated the association between consumer acceptance and perceived credibility, with a weak affect on the association. Therefore, banks can enhance the e-banking acceptance by designing user-friendly websites that ensure a sense of security during transactions. They also suggested that by improving performance and standing by what they claim, banks can minimize perceived risks and build trust among their customers.

Asif (2021) conducted a study which investigated the factors affecting the use and non-use of internet banking among different age groups, particularly youths and elderly people. The research utilized a convenience sampling method and was descriptive in nature. ANOVA and two-sample Z-test and were

used to calculate the results. Findings revealed association between the experience of traditional and online banking, indicating that more experience an individual has with online banking, the more likely they are to have experience with traditional banking as well. The study also found evidence supporting association of duration of usage and online banking. It also identified youth as predominantly using internet banking, while the elderly prefer to visit banks physically. The research provides insights into why younger generations prefer online banking, while the elderly do not. The study suggested that the youth visit the bank physically to familiarize themselves with the location of the bank and their relationship manager. This can help them address any problems they may face in the future. Additionally, the study suggests that the younger clients can teach the older clients to effectively use internet banking, considering the reduced immunity of the elderly compared to the youth.

Shazad (2005) conducted a study on e-banking in Pakistan which attempted to explore the prevailing trends of e-banking in Pakistan and to understand how the bank's online environment and consumer services within that environment can be described. The study focused on focusing on Muslim Commercial Bank and Citibank and Muslim Commercial Bank and adopted a multiple case study strategy. The customer feedback and interviews were used to collect data from the bank websites. The findings revealed that customers preferred e-banking for its efficiency, lower costs and time-saving capabilities. Bank websites that had concise and clear information built trust with customers, while multimedia and graphic elements were found to be distracting. The study also found that language options, loan information and a menu of multiple services were important aspects of customer service. Consumer's lack of trust on new banking channel emerged as the main challenge faced by customers, but effective management of complaint could help increase customer trust and loyalty on e-banking.

Hussain and colleagues (2021) conducted research on the use of e-banking has become crucial for success of banking sector worldwide, and this trend has attracted the attention of regulators and researchers. A study was conducted to investigate the impact of technology adoption elements such as perceived usefulness, perceived ease of use, security and privacy and perceived behavioral control on intention to use e-banking in university undergraduates in Pakistan. The research examined the mediating role of government support in these elements and intention to use electronic banking. Questionnaires were used to gather data from students attending private university, and smart-PLS was adopted to explore relationships among study variables. The findings showed that perceived usefulness, ease of use and perceived behavioral control had significant positive association with the intention to use electronic banking. Furthermore, study identified government support mediating the relationships among study variables positively and significantly. These results provide guidance to regulatory authorities when developing policies related to electronic banking. This study addressed issues affecting effective banking performance, factors improving intention to adopt digitalization and technology in banking processes. The results showed that users' perceptions of the security, usefulness, behavioral control, ease of use and privacy of e- banking technology determine the extent to which they intend to adopt the technology in e-banking. The study also showed that perceived ease of use, usefulness, behavioral control, privacy and security enhance government support and therefore results in increased use of e-banking.

Sanli and Hobikoglu (2015) investigated development of e-banking as an innovative financial distribution channel in Turkey. They reported that the demand for web-based banking products has increased due to low service cost, customer-focused services, competitive market structure, and consumers' desire for fast and effective banking products. E-banking provides a significant competitive advantage to banks in terms of location, time, cost and focusing on advanced technologies that increased interbank competition. They used structural analysis to study the processes and innovative products to determine the effectiveness of Turkish banking industry. They identified a range of products offered in Turkish web banking leading to a noticeable increase in e-banking use. They concluded that rate of e-banking was still low compared to other countries. In order to strengthen the e-banking, researchers stressed the need to take precautions, such as diversifying banking products, overcoming the clash between web infrastructure and banking industry

security, and strengthening the understanding of the tendency of using web banking, which will be effective in speeding up the development of web banking.

Rahman et al., (2021) conducted research which shows, service organizations worldwide have been increasingly adopting technological innovations, especially in the banking sector, where internet banking has reshaped traditional banking activities in Bangladesh. To examine internet banking adoption, the study considered perceived ease-of-use, usefulness, social influence, trust and perceived enjoyment as variables. Research involved 300 university students as sample size and utilized a well-designed questionnaire for data collection, with statistical analysis carried out using SPSS. The ANOVA test was employed to determine any differences in study variables due to academic disciplines and gender. The study involved students from various universities studying different programs, with differences observed in intention and ease-of-use between male and female students. The findings reveal that students in business administration were more willing to adopt e-banking and also considered related social influence favorably. Results indicate that men were more likely to use internet banking services and prefer ease of use compared to women. Also, students studying business were more inclined to adopt e-banking over those studying other academic disciplines.

Hammoud et al., (2018) conducted a research to determine which dimension of E-Banking service quality impacts the customer satisfaction strongest in the Lebanese financial sector. The researchers distributed a survey among bank clients and employed structural equation modeling for statistical analysis. The results explained that responsiveness and communication, efficiency, reliability, ease of use, security and privacy all impact consumer satisfaction significantly, with reliability having the strongest impact. Study also suggested that consumer satisfaction could be increased by implementing e-banking properly and banks could also get a competitive advantage. The study's contribution lies in its focus on banking sector of a developing country addressing the problems existing in banking system of other developing countries. The study's findings said to help banks in underdeveloped countries leverage information technology to establish services according to consumer’s expectations. With e-Banking services still in developmental stage in Lebanon, the results could help better understand the services that banks can develop to meet the expectations of their customers.

Javed (2017) investigated determinants of mobile banking in Pakistan. He reported that in recent decades the banking industry in both developing and developed countries has undergone rapid technological changes, which has led to increased competition in the sector through the utilization of internet banking. It aimed to determine the factors influencing consumers’ attitudes towards using mobile banking, with attitude conceptualized as the dependent variable and perceived usefulness and risk as independent variables. The study included 150 participants of five selected banks. Results indicated that both risk and perceived usefulness significantly affected customers' behavior towards mobile banking in Pakistan. It further noted increase in internet banking use attributed to availability of online bill payments, fund transfers, balance inquiries, mobile recharge, and shopping through cards. The study focused on two determinants, perceived ease and perceived risk, and found that these were major factors that influenced customers' attitudes towards using mobile banking in Pakistan. The study recommended that banks should enhance privacy and security measures to mitigate fraud issues. It was recommended that banks should provide more facilities to internet banking consumers and develop user-friendly software to meet customers' needs.

Hussain et al., (2017) conducted an empirical study as per the study, electronic banking is widely utilized on a daily basis due to the busy lifestyles and need for prompt and efficient work. It is considered the best way to carry out financial transactions both in the intra and interbank transfer. However, with the increasing number of electronic transactions, there has been a rise in cyber-crimes. To retain and maintain customer satisfaction, electronic banks need to provide unique passwords and maintain high-profile security to prevent unauthorized access to users' accounts. The trust and loyalty of customers depend on various factors such as reputation, response time to customer queries, consistency, understanding, and

guarantee of service quality. Meanwhile, the expansion of e-banking networks in Pakistan over the last decade has been enabled by the arrival of information, trustworthy internet connectivity, accessibility of quick and communication technology. The faster internet availability provides more facilities to bank customers, such as easier cash withdrawal, faster money transfer, web applications, and reduction in the number of bank branches. However, along with these advantages the banking sector has also faced cyber threats due to internet connectivity, privacy of customers' accounts, including transaction security and banking system security.

The purpose of the present study was to gain a thorough understanding of consumer acceptance of e-banking in Pakistan, with the aim of helping banks develop effective marketing strategies and create a positive customer experience. The main objectives were to (a) explore main aspects of e-banking experience namely ease of use, Safety, access, reliability/trust and usefulness (b) to identify aspects of e-banking that works as correlates and barriers of e-banking acceptance; (c) to assess the reasons of using e-banking services and finally (d) to investigate gender differences in e-banking preferences and acceptance.
This research explored various aspects of e-banking experience, perceived benefits attached and convenience to adoption of e-banking. The data obtained from the survey provided significant insights into participants' perceptions, preferences, and usage patterns related to e-banking services. The insights gained from this study will be valuable for banks in developing tailored strategies and initiatives to enhance consumer acceptance and adoption of e-banking. Banks will be able to refine their service offerings, improve user experience, strengthen security measures, and effectively communicate the benefits of e-banking to their customers.

Material and Method

Research Design

This study was based on a cross sectional descriptive survey research design. In total 440 participants keeping in view previous literature and data considerations of proposed statistical analyses. The participants were selected through non probability purposive sampling technique as the study was specifically interested in studying the preferences of bank consumers who use e-banking services. Participants were bank customers from various regions of Pakistan approached through different web portals. The participants included men (49 %) and women (51 %).

Age of the participants was between 18 and 76 years with mean age of 31.31 (SD= 10.03) years. Majority of the participants were between 26 and 35 years of age (41.6%). The minimum educational level was intermediate (3 %), majority had bachelor's degree (54 %), others had masters (39%), doctorate (3%) and post doctorate (0.5%) degrees. The income of the sample ranged from 20000 to 9000000. Most of the participants were single (50%) but also included married (48 %), divorced (1 %) and widowed (1%).

Measures of Data Collection

Data in the present study was collected using a detailed self-administered questionnaire. The questionnaire comprised two sections, first section recorded personal information and second part included questions about various dimensions of online banking services. The questions explored various aspects of e-banking experience such as security concerns, ease of use, convenience, perceived benefits, and barriers to adoption of e-banking. The questions were carefully crafted to address the research objectives and gather data on the variables of interest. Both sections were in English language and found to have satisfactory psychometric properties ranging from 0.81 to 0.92.

Procedure

The design and procedure of the present study were approved by the concerned committees and research review board of FCCU, Lahore. A pilot study was conducted prior to administering the questionnaire on actual sample. This was done in an attempt to identify and address potential issues related to the comprehension, presentation, clarity and relevance of the questions. Overall, the questionnaire was well-received by the respondents, who found it easy to understand and complete. Carefully structured questionnaire was then converted into an online survey, a link was generated and shared with participants through email, social media platforms, or other suitable means. Initially, the questionnaire was sent to around 800 individuals but only 440 individuals completed the questionnaire. Throughout the data collection period, participants had the flexibility to complete the survey at a time and place of their choosing to minimize potential barriers to participation. The design and procedures employed were reviewed in detail by concerned ethical and research review bodies and approved the study for meeting ethical and research standards.

Analysis

The Statistical Package for Social Sciences (SPSS 25.0) was used to summarize and analyze the study data through various descriptive and inferential procedures. Descriptive statistics included calculating frequency, percentages, range, measures of variability and measures of central tendency. The inferential statistical procedures included Pearson product moment correlation and t test.

Table 1: Demographic Characteristics of Respondents (N=440)

Category	Frequency	Percentage
Gender		
Men	215	49 %
Women	224	51 %
Age		
18-25 Years	139	32 %
26-35 Years	183	42 %
36-45 Years	75	17 %
46-55 Years	30	7 %
>55 Years	13	3 %
Education		
Intermediate	13	3 %
Bachelors	239	54 %
Masters	172	39 %
PhD	14	3 %
Post Doc	2	0.5 %
Marital Status		
Single	222	51 %
Married	210	48 %
Divorced	5	1 %
Widowed	3	0.7 %

Women had slightly higher representation in the present sample. Age of the participants was between 18 and 76 years with mean age of 31 (SD=10.03) years. The monthly income of the participants ranged from 20000 to 9000000 with 23015 rupees average income. A large majority of the participants were educated till undergraduate level, whereas, most of the participants were single.

Table 2: Descriptive of Reasons of E-banking Service Adoption (N=440)

Reasons of use	Frequency	Percentage
Checking account balance	35	8 %
Transferring funds	109	25 %
Paying Utility Bills	49	11 %
Shopping	27	6 %
All of these	220	50 %

A large majority of consumers used e-banking sources for multiple reasons. However, majority of those who only used e-banking services for one of the reasons only used it for transferring funds.

Table 3: Descriptive Characteristics of Study Variables

Variables	N	Min.	Max.	Mean	SD
Perceived Reliability/trust	440	8.0	56.00	41.50	5.66
Perceived Ease of Use	440	15.0	57.0	44.90	5.4
Perceived Usefulness	440	7.0	49.0	39.86	5.85
Safety	440	5.0	35.0	25.14	3.70
Accessibility	440	7.0	49.0	39.86	5.85
Frequency of Use	440	1	6	3	1.29

Participants in the present study responded to different dimensions of e-banking experience that were identifying as correlates and or barriers of acceptance or adoption of e-banking in Pakistan. The frequency of use was recorded in terms of number of times someone used e-banking services. According to results, on average participants used e-banking services three times in a week, with men using these significantly more than women.

Table 4: Gender Variations Across Factors Associated with E- Banking

Variable	Gender	N	Mean	SD	t	Sig.	95% CL		Cohen's d
							LL	UL	
Safety	Men	215	24.05	3.7	5.333	0.001	-2.572	-1.187	0.104
	Women	224	25.93	3.6					
Access	Men	215	39.01	6.3	-0.388	0.698	-1.350	0.905	0.036
	Women	224	39.23	5.6					
EOU	Men	215	45.39	5.7	2.675	0.007	0.366	2.393	0.181
	Women	224	44.01	5.1					
Reliability	Men	215	40.89	5.9	2.243	0.025	-2.251	-0.148	0.142
	Women	224	42.09	5.3					
Usefulness	Men	215	40.12	5.9	0.951	0.006	0.441	2.618	0.091
	Women	224	38.59	5.7					
Frequency of use	Men	215	5.15	1.0	5.794	0.000	0.455	0.923	0.567
	Women	224	4.46	1.4					

The frequency of e banking engagement was significantly higher in men compared to women, however, they did not show significant differences on any other dimension. Men observed to give significantly more attention to ease of use compared to women. Whereas, women were identified to be more concerned with reliability and safety of the procedure compared to men. Form men usefulness was more important than women.

Table 5: Correlation of Usage of E-banking with other Study Variables (N=440)

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. PRT	1								
2. PEOU	0.646**	1							
3. PU	0.789**	0.657**	1						
4. Safety	0.433**	0.455**	0.392**	1					
5. Access	0.648**	0.696**	0.706**	0.411**	1				
6.Income	0.070	0.005	0.080	-0.019	-0.001	1			
7. Age	0.005	-0.083	-0.006	-0.126**	-0.037	0.265**	1		
8.Education	-.032	-0.034	0.008	-0.071	0.003	0.200**	0.340**	1	
9. Usage	0.25**	0.23**	0.31**	0.17*	0.28**	0.20**	-0.32*	0.40	1

Note. PRT= Perceived Reliability/Trust; PEOU= Perceived ease of use; PU=Perceived usefulness, Access= Accessibility.
*p <0.05. **p<0.01

The Findings revealed that utility of e-banking shared significant positive association with all dimensions of e-banking including reliability, ease of use, safety and ease of use. The strongest association was observed between perceived usefulness and e-banking adoption. When adoption of e-banking was related with access it revealed significant positive association.

When related with demographic variables, adoption of e-banking noticed to have an interesting pattern. The use of e-banking was high among those with higher income and education, however, a significant decrease in e-banking acceptance was noticed in older participants.

Discussion

Banks offer a wide range of financial services through e-banking platforms such as allowing consumers to operate their accounts, providing basic information about products and services, funds transfer, paying bills and purchase and redeem securities. Overall, e-banking has made banking far more accessible and convenient for users, eliminating the need for consumers to visit the bank for financial transactions (Ayinaddis et al., 2023). Banks have created complex web-based solutions for their retail customers, which has improved customer service and retention while simultaneously lowering bank operating costs (Wu et al., 2010). This has facilitated the consumers to enhance their banking experience and leave a positive impact on their life.

Present study attempted to investigate the experience of e-banking in Pakistan and to identify the factors associated with it's acceptance. Previous researches identified several behavioral dimensions and attributed them with adoption of e-banking. One of these was ease of use which many studies reported to be associated with consumer's acceptance of e-banking. Findings of the present study were consistent with the Technology Acceptance Model (TAM) and previous research that emphasized the importance of ease of use as a determinant of technology acceptance (Hussain et al., 2021). When individuals perceive a system as easy to use, it reduces perceived barriers and increases their willingness to engage with the technology. In the context of e-banking, perceived ease of use encompasses factors such as the simplicity of navigation, clarity of instructions, availability of support resources, and overall user-friendliness of the interface (Al-Emadi et al., 2021). A positive perception of these aspects enhances consumers' confidence in conducting financial transactions online, leading to greater acceptance of e-banking services.

Perceived usefulness was another dimension, which in present study was also identified as another factor related with consumer's acceptance of e-banking. Results provided robust evidence supporting this relationship with a significant positive correlation. According to a recent study (Reepu & Arora, 2022), individuals are more inclined to utilize e-banking services when they perceive them as helpful rather than

simply easy to use. Additionally, literature (Akhlaq & Shah, 2011) highlights that the impact of perceived usefulness on the intention to adopt e-banking services is partially influenced by the perception of trust. These findings underscore the importance of emphasizing the practical benefits and advantages of internet banking to drive consumer adoption, while also addressing trust-related concerns. By promoting the perceived usefulness of e-banking and building trust among users, financial institutions can enhance the desire and willingness of individuals to utilize these services.

The data of present study revealed a compelling finding, supporting a significant positive impact of trust and reliability on consumer acceptance of e-banking in Pakistan. This implies that individuals who have trust in the e-banking system and perceive it as reliable are more inclined to accept and actively participate in e-banking activities. A study conducted by Vejačka and Štofa (2017) provides additional support to this finding, further reinforcing the significance of trust and reliability in shaping consumer acceptance of e-banking in Pakistan. Trust plays a fundamental role in the adoption and acceptance of e-banking services. When consumers have confidence in the security measures, privacy protection, and overall integrity of the e-banking system, they are more likely to embrace it as a viable option for their financial needs. Trust acts as a catalyst, mitigating concerns related to potential risks and uncertainties associated with online financial transactions.

Contrary to inferences drawn in some previous studies (Akhlaq & Shah, 2011; Shaikh et al., 2018), present findings suggested that safety concerns may not exert a substantial impact on consumer acceptance of e-banking. Individuals' reactions to privacy problems can vary, and one potential reason for these differences is their cultural viewpoint. Research has highlighted that consumers' safety concerns towards e-banking depends on several factors including their cultural norms (Singh et al., 2003) and their perspectives on the roles of both government and private companies in protecting consumer privacy, past experiences and personal characteristics (Malhotra et al., 2004). Consequently, consumers often hold diverse opinions about what they consider fair or unfair when it comes to the collection and use of personal information.

The present sample also considered easy access to banking pertinent as it was noted to be positively linked with frequency of use and remained aligned to previous studies conducted in Pakistan (Rizvi et al., 2017). The previous findings revealed that the use of e-banking services rely heavily upon quality of internet and quality and access to conventional and e-banking services. One advantage of e-banking is that the consumers can exert better financial control while saving their time and commuting resources. Formal banking services are still not available to many consumers in Pakistan as the branches of the banks are not distributed evenly in remote and nonurban settlements. In such cases the consumers particularly have to rely on e-banking as reliable and secure source of fund transfer and utilizing financial services. Therefore, findings demonstrated that improved accessibility features of e-banking platforms played a significant role in encouraging individuals to adopt and utilize e-banking services as was also reported in other researches (Abdullahi et al., 2018).

Other than behavioral preferences, adoption of e-banking is also influenced by significant demographic variables, therefore, present study considered education, age, income and gender significant for e-banking adoption. Present study identified education to be positively associated with adoption and usage of e-banking services. Aligned to our findings, previous researches have demonstrated that individuals with higher levels of education are more likely to utilize these services. These studies suggested that education plays a significant role in shaping consumers' attitudes and behaviours towards internet banking (Jiménez & Díaz, 2019). This finding can also be attributed to the fact that individuals with better education possess greater digital literacy skills, better accessibility and understanding of the benefits and functionalities of internet banking.

Individuals with higher incomes are more likely to have the financial means to afford the necessary technological infrastructure, such as computers, smartphones, and internet connectivity. This might be the reason for finding a positive association of income and use of e-banking in present study and aligned with

findings reported previously (Anguelov et al., 2004). Gender is usually attributed to significant variations in attitudes and preferences. Findings of present study revealed noticeable variations between men and women in terms of their adoption and usage of e-banking services as men used e-banking significantly more. This finding is supported by previous studies reporting significant gender differences in adoption of e-banking services (Merhi et al., 2021) with men reported to have higher frequency of e-banking usage (Jha, 2019). These differences can be due to the fact that men are reported to view new technologies more valuable and therefore more inclined to e-banking (Nahar, 2022). Secondly, women sometimes refuse using e-banking services considering the process to be complex and less safe compared to conventional banking services (Nahar , 2022).

Age played a substantial role in influencing the adoption and usage of e-banking services, at least within the scope of the current study. Present data observed older age to be linked with lower adoption of e-banking services which is aligned to findings of previous studies (Yates, 2020). It is worth considering that younger individuals tend to be more technologically savvy compared to older age groups. Their familiarity and comfort with technology, including digital platforms and mobile devices, may contribute to their higher adoption and usage of e-banking services. This higher level of technological proficiency among young people could potentially explain the direction of association between age and e-banking usage. As technology continues to advance and become increasingly integrated into daily life, it is essential to acknowledge the generational differences in technology adoption and utilization when examining the factors influencing e-banking behavior (Yates, 2020).

Although the study established associations between e-banking and various factors, it is crucial to recognize that further research is necessary to establish causal relationships among the identified factors. It is recommended that future research expands its scope to encompass diverse demographic variables and investigates e-banking acceptance in different contexts and cohorts. Despite the limitations, the findings of this study have practical implications for both researchers and professionals in the banking industry. The insights gained can guide banks and financial institutions in developing effective marketing strategies, enhancing the usability and security of their e-banking platforms, and building customer trust. By addressing the identified factors, banks can improve customer satisfaction, increase adoption rates, and contribute to the growth and development of e-banking services.

Conclusion

This study has provided interesting insights in e-banking acceptance and key factors associated with it. The importance of access, ease of use, reliability and perceived usefulness were identified in shaping consumers' attitudes and behaviors towards e-banking.

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