BREAKING BARRIERS: HOW TRUST SHAPES MOBILE BANKING ADOPTION IN A DIGITALLY DIVIDED METROPOLIS

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Article Info

Abstract

With the advancement of technology, the banking industry has witnessed substantial changes, particularly in the realm of electronic financial transactions such as money transfers, utility payments, insurance premiums, mortgages, and stock trading. In Pakistan, despite the growing use of smartphones, there has been a relatively low acceptance rate of mobile applications for banking services. This study examines the market acceptability of mobile applications in Karachi, Pakistan, through a structured online survey using standard variables from the Technology Acceptance Model (TAM). A total of 277 valid responses were collected from 300 distributed questionnaires. The Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was employed to analyze the data and test the hypotheses. Findings reveal that while security and convenience have a minor impact on trust, factors such as responsiveness and relative advantage significantly influence it. This highlights the importance of these factors in enhancing consumer trust and satisfaction with mobile banking services in Pakistan. Although mobile banking has been available for some time in Pakistan, there is a lack of research focusing on the application of PLS-SEM to evaluate young users' satisfaction as mobile banking customers. This study has addressed this gap by providing valuable strategic insights for banks to design mobile banking services that enhance customer satisfaction.

Introduction

The usage of mobile banking has become increasingly prevalent, particularly following the outbreak of the coronavirus, which significantly disrupted industries, including banking, restaurants, and other businesses (Zhu et al., 2020). The virus spread not only through person-to-person contact but also via contaminated objects, prompting governments to issue instructions like staying home and shutting down borders (Mwiya et al., 2022). In response, the banking sector implemented protective measures, while mobile banking emerged as a crucial tool for financial inclusion, especially in developing countries where access to traditional banking services is limited (Hossain et al., 2020). Leveraging mobile technology, individuals without access to physical bank branches can now participate in the financial system, promoting economic empowerment and reducing inequality (Brown, 2018).

Advancements in technology have enabled organizations to interact more effectively with customers, offering fast delivery services through online platforms (Nimako et al., 2013). Most companies are adopting advanced online technologies to make their products and services easily accessible to customers (Rod et al., 2009). Mwiya et al. (2017) describe the essential role of banks globally in encouraging customers to deposit money, transfer funds, and obtain loans. Amid the coronavirus pandemic, maintaining social distancing became crucial, prompting the banking sector to provide online services, allowing customers to check their balances and transfer funds via the bank's online website (Johnson, 2019). Mobile banking has revolutionized financial management by enabling users to perform various transactions from their mobile devices, including checking account balances, transferring funds, paying bills, and making deposits (Smith, 2017).

The banking sector's adoption of online services, facilitated by advanced technology, has become a critical instrument for electronic commerce (Raza et al., 2020). Ghane et al. (2011) note that during the coronavirus crisis, reliance on online banking increased, with banks playing a key role by providing online services that allowed customers to conduct transactions from home (Sikdar et al., 2015). The bank communicates its services to customers through websites, helplines, and other channels (Rahi et al., 2016). As technology advances, the competition in the banking sector intensifies, with banks needing to offer satisfactory online services to meet customer needs (Anuar et al., 2012).

On a global scale, the dynamics of the mobile banking industry continue to evolve, driven by the proliferation of smartphones and internet connectivity (Humphrey et al., 2016). Factors such as convenience, security, and cost-effectiveness have driven the global adoption of mobile banking (Lee & Lee, 2018). Financial institutions worldwide have invested heavily in developing robust mobile platforms (Wang et al., 2019). However, variations in mobile banking usage are evident across different countries and regions. In Pakistan, the local industry has seen significant growth in mobile banking adoption, influenced by factors like increased smartphone penetration, government initiatives for digital financial services, and collaborations between financial institutions and telecom operators. According to Ahmed (2020), mobile banking has not only provided convenience but also contributed to financial inclusion, enabling access to basic financial services for the unbanked population (Khan & Raza, 2018). Mobile banking has also supported entrepreneurship, providing access to microloans and fostering economic growth (Samad & Zafar, 2019).

Technology has significantly transformed people's needs by making tasks quicker, safer, and more convenient (Indrasari et al., 2022). In the banking sector, the shift towards e-commerce became particularly pronounced during the COVID-19 pandemic due to the associated risks and potential impacts on money transfers (Amir et al., 2019). E-banking was developed to provide financial transactions that are faster and more convenient for clients while also reducing the spread of the virus. However, the financial services sector faced challenges, especially in developing countries, as a result of this digital shift (Endri et al., 2021).

Traditionally, banking required customers to visit the bank for every transaction, such as retrieving account information or transferring funds. Online banking now allows customers to perform these tasks

from the comfort of their homes via mobile devices. Despite its benefits, many customers remain unaware or hesitant to adopt online banking due to various obstacles and security concerns (Rajasulochana et al., 2022). Issues such as security risks from hackers (Omar et al., 2022), complex user interfaces, unreliable customer support, and technical glitches (Smith & Johnson, 2019) hinder customer trust and satisfaction. As identified in the literature, there are significant research gaps in understanding the factors influencing the adoption of mobile banking, including security, relative advantage, convenience, and responsiveness (Shamsi et al., 2020). This study aims to bridge these gaps by exploring these factors and their impact on customer trust in the context of Karachi, Pakistan.

2. Theoretical Background

The rapid advancement of technology has transformed the banking industry, offering innovative services like mobile banking that provide convenience and accessibility for customers (Indrasari et al., 2022; Amir et al., 2019). Mobile banking allows users to perform tasks such as transferring funds, checking account balances, and paying bills remotely, reducing the reliance on traditional banking methods. However, in developing countries like Pakistan, the adoption of mobile banking remains relatively low. Barriers such as security concerns, complex user interfaces, and limited digital literacy hinder customers from fully trusting and utilizing these services (Smith & Johnson, 2019; Omar et al., 2022). These factors highlight the importance of understanding the determinants of technology acceptance to improve customer trust and satisfaction.

The Technology Acceptance Model (TAM) serves as a foundational framework to analyze user acceptance of technology. Developed by Davis (1989), TAM emphasizes two critical factors influencing adoption: perceived ease of use (how effortless the technology is to use) and perceived usefulness (how well the technology enhances a user's performance). These factors shape user attitudes and behavioral intentions toward adopting new technology. TAM has been extensively applied in various domains, including e-banking and mobile banking, due to its ability to explain technology adoption effectively (Brown & Venkatesh, 2005).

In the context of mobile banking, TAM's core constructs can be expanded to incorporate additional factors such as security, relative advantage, convenience, and responsiveness, which significantly influence customer trust and usage (Shamsi et al., 2020). Security is a particularly critical factor, as concerns about data breaches and fraud deter users from adopting mobile banking (Ali et al., 2021). Similarly, the perceived benefits of mobile banking, such as convenience and relative advantage, motivate users to transition from traditional banking methods. Responsiveness, defined as the speed and effectiveness of support services, also plays a vital role in building customer trust and satisfaction.

By applying TAM, this study aims to evaluate how these factors influence customer trust in mobile banking services in Pakistan. Understanding these dynamics will provide valuable insights for financial institutions to develop user-friendly, secure, and reliable mobile banking solutions. This will not only enhance customer trust but also promote broader adoption, fostering greater financial inclusion and digital transformation in the region.

2.3 Development of Hypotheses

2.3.1 Impact of Relative Advantage on Trust

Relative advantage refers to the perceived benefits of using mobile banking compared to traditional banking methods, such as improved efficiency, time savings, and cost-effectiveness (Yang et al., 2023; Davis, 2021). Features like accessibility, ease of use, and personalized services further enhance this perception (Karjaluoto et al., 2019). The ability to perform banking anytime and anywhere strengthens trust by increasing users' confidence in the system's reliability and efficiency (Lee et al., 2021).

Trust in mobile banking represents users' belief in the system's security, competence, and reliability (McKnight & Chervany, 2022). Studies consistently demonstrate a positive relationship between relative advantage and trust. For example, Karjaluoto et al. (2022) and Wang et al. (2023) found that perceived advantages like convenience and credibility enhance users' trust in mobile banking.

H1: Relative advantage has a positive impact on trust.

2.3.2 Impact of Convenience on Trust

Convenience in mobile banking is characterized by features like 24/7 access, quick transactions, and user-friendly interfaces that reduce the need for physical visits to bank branches (Bhatti & Ali, 2023; Lee & Kwon, 2020). Personalized services and location-based notifications further enhance user satisfaction and perceived control (Thakur & Srivastava, 2023).

Convenience directly influences trust by improving ease of use and reducing perceived risk, which are essential for fostering reliability in mobile banking platforms (Bhatti & Ali, 2022). Satisfied users are more likely to trust and repeatedly use the platform (Hossain, 2020).

H2: Convenience has a positive impact on trust.

2.3.3 Impact of Security on Trust

Security refers to measures ensuring the confidentiality, integrity, and safety of users' financial information, including encryption, secure authentication, and device-level security (Smith, 2023; Brown, 2021). Strong security protocols reduce risks like fraud and identity theft, enhancing users' confidence in mobile banking (Johnson et al., 2019; Thompson et al., 2023).

Trust is closely tied to users' perceptions of security and privacy controls. A transparent approach to addressing security concerns reinforces trust by demonstrating the provider's commitment to protecting users (Nguyen et al., 2021). Effective security measures such as multi-factor authentication also empower users, increasing their reliance on mobile banking platforms (Lynch, 2020).

H3: Security has a positive impact on trust.

2.3.4 Impact of Responsiveness on Trust

Responsiveness in mobile banking reflects the platform's ability to address users' needs promptly, through swift navigation, quick loading times, and efficient customer support (Smith, 2023). A responsive platform demonstrates reliability and reduces transactional uncertainties (Harris et al., 2016; Peterson, 2018).

Responsive services create positive perceptions, increasing user satisfaction and trust. For example, platforms that promptly address user concerns foster loyalty and trust by showing a commitment to customer needs (Jones et al., 2019; Davis et al., 2017).

**H4: Responsiveness has a positive impact on trust.**

2.3.5 Impact of Trust on Usage

Trust is the confidence users place in the reliability, security, and competence of mobile banking services (Smith, 2022). It reduces perceived risks and enhances the perceived usefulness and ease of use of the platform (Chen et al., 2020).

Trust positively impacts usage by fostering loyalty, promoting word-of-mouth recommendations, and encouraging customers to explore additional features and services (Yousafzai et al., 2021; Karahanna & Limayem, 2023). Customers with high trust levels are more likely to continue using the platform and integrate it into their financial practices (Kwak et al., 2020).

H5: Trust has a positive impact on usage.

2.4 Research Framework
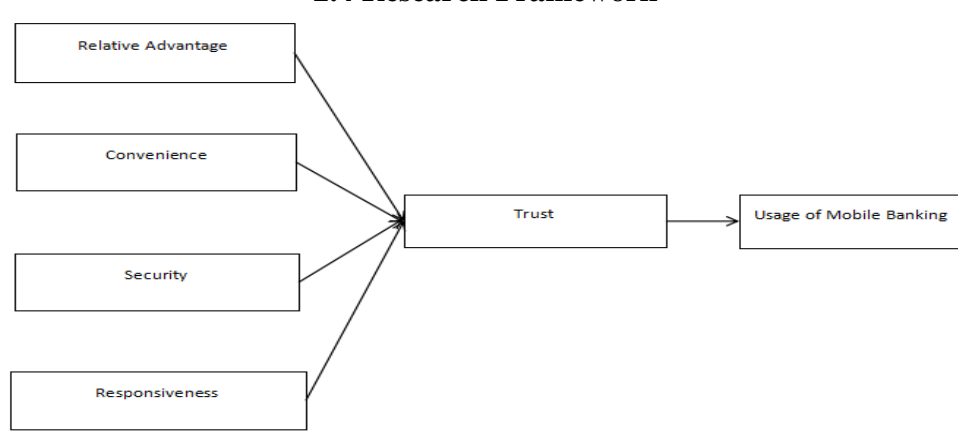
3.1 Research Methodology

This chapter outlines the research methodology employed in this study. It includes the research design, approach, philosophy, data collection methods, data analysis techniques, data sources, target population, sample size, data collection techniques, data collection instruments, sampling techniques, statistical methods, model hypothesis, and ethical considerations.

3.2 Research Design

The research employs a causal-comparative design to examine the relationship between variables. In quantitative research, there are four main types of research designs: descriptive, correlational, causal-comparative, and experimental. This study uses a causal-comparative design to explore case-and-effect relationships among constructs.

3.3 Population, Sampling, and Sampling Technique

The population for this study consists of individuals who frequently use mobile banking services. Respondents include those who actively engage with the banking sector through mobile banking platforms. Non-probability sampling is employed, as most respondents are familiar with mobile banking features. A sample size of 161 is suggested using the Daniel Super Calculator.

3.4 Instrumentation and Data Collection

Data is collected through structured questionnaires. The instrument was validated by a language expert to ensure its suitability for the target audience. The questionnaire was based on a 5-point Likert scale, adopted from previous studies.

Data was gathered using self-administered questionnaires distributed via Google Forms to a total of 300 respondents, with 277 valid responses used for analysis after data screening.

Table 1 – Source of Instrument

Construct	Likert Type	Source	No. of Items
Relative Advantage	5	Kahandawa & Wijayanayake (2014)	5
Convenience	5	Achieng & Ingari (2015)	4
Security	5	Ghosh & Barua (2014)	4
Responsiveness	5	Ghosh & Barua (2014)	5
Trust	5	Wong (2013)	4
Usage of Mobile Banking	5	Sudipa et al. (2022)	4

4 STAITISTICAL ANALYSIS AND RESULT

 This research aims to determine how the purposed of the model is calculated. Statistical methods such as SPSS and Smart PLS are used to analyze the data. The data screening was performed with SPSS, and the hypothesis was tested with Smart PLS. The data collected from 50 participants to perform a pilot study with the help of SPSS software after achieving the realiability of the questionnaire the data collected from 300 participants and then do additional analysis using the data screening procedure. In this chapter, the results of the data collected from online banking users have been run. The data was gathered through a questionnaire, and this study is based on quantitative, while many statistical tests were run to understand the meaning of data collection. This result will help to conclude the findings of the research. The software used to run the test is SPSS or PLS.

4.1 RELIABILITY (Pilot Study)

A pilot study should be conducted to perform a well-intentioned investigation (Van Teijlingen & Hundley, 2001). A pilot study is carried out to ensure that the research instrument is reliable. The term "reliability" refers to the consistency of a system. Cronbach's Alpha, the most popular method for assessing the dependability of a research instrument, was also employed for reliability testing. Cronbach's Alpha was first introduced in 1951 by Cronbach. The reliability was assessed using SPSS. Hair et al., (2014) stated that the value of the Cronbach's alpha should be atleast 0.7. The findings show that the dependability of all 8 variables is more than 0.7, as measured by Cronbach's alpha.

Variables	Cronbach Alpha	No. of Items
Relative Advantage	0.914	5
Convenience	0.872	4
Security	0.823	4
Responsiveness	0.898	5
Trust	0.900	4
Usage of Mobile Banking	0.926	4

4.2 Data Screening

These steps were followed while screening the data. Firstly, modify the out-of-range numbers and put them into SPSS. Furthermore, outliers and missing data are removed, which is a part of data cleaning and deducting incorrect or missing information.

4.2.1 Missing Values

When the method of finding out-of-range values was completed, another procedure was to enter the missing values in SPSS. In the data 2 missing values were found and removed. So, the data is further preceded into other tests.

4.2.2 Univariate and Multivariate Outliers

Following the missing value analysis process, the next step is to identify univariate and multivariate outliers using many imputations. To depict the Z-score elements, univariate outliers appear. According to (Tabachnick & Fidell, 2007), univariate outliers are values that fall beyond the range of +3.29 and -3.29, in the data 2 univariate ouliers were found and removed. There were 21 multivariate values were deducted and removed with less than 0.001 in the provided set of data

4.3 Demographic Profile of Respondents

This is the demographic profile of the results of the respondents which is shown in the table 1:

		F	%
Gender	Male	159	57.4
	Female	118	42.6
Age	20-29	66	23.8
	30-39	81	29.2
	40-49	81	29.2

	50 and above	49	17.7
Online Transaction Frequency	1--9	103	37.2
	10-19	105	37.9
	20 and others	69	24.9
Which Bank	Askari bank	19	6.9
	Allied bank	25	9
	Bank Alfalah	32	11.6
	Bank Al Habib	17	6.1
	HBL	1	0.4
	Meezan	64	23.1
	MCB	71	25.6
	UBL	25	9
	Others	23	8.3
Main Reason to use MB	Fund Transfer - within bank	41	14.8
	FT - Other banks	120	43.3
	School, College/University fees payment	1	0.4
	Mobile top up	63	22.7
	Limit enhancement of card	26	9.4
	Others	26	9.4

The numerical values of items are shown in the table. The numerical values of items indicate the frequency and percentage of the items. For demographics, the focus in this study is gender, age, online transaction frequency, which bank, and reason to use mobile banking. There were more male respondents than female for the collection of data 300 responses were collected out of which 23 responses were eliminated. After elimination of invalid responses 277 responses were left. A total of 277 respondents were collected out of which 159 were males and 118 were females. In the targeted age group,81 are from the 30 to39 age group and 81 people are from the 40 to 49 age group. (10-19) online transaction frequency level of the respondents was 105. Out of 277 respondents 25.6% use MCB.

4.4 Construct and Convergent Reliability

Result of convergent validity show in the table 2.

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Convenience	0.841	0.842	0.679
Responsiveness	0.918	0.931	0.754
Relative Advantage	0.928	0.930	0.777
Security	0.887	0.892	0.746

Trust	0.917	0.925	0.803
Usage of Mobile banking	0.944	0.946	0.856

The convergent validity through CR and AVE should be greater than 0.70 and 0.50 those values are suggested to be accepted (Hair et al., 2017). All the variables used in this study were greater than 0.7 and 0.50. As a result, achieves convergent validity.

4.5 Discriminant Validity

The degree to which each of the variables is different from the others is known as discriminant validity. It denotes that each variable in the model has a distinct and distinct interpretation (Hair, Hult, Ringle, & Sarstedt, 2016). There are three suggested measures of discriminant validity. Fornell and Larcker, the latent variable correlations are compared to the square root of the AVE values, and the square root of each construct's AVE should be higher than its greatest correlation with any other construct. Second, the cross-loading on the related construct should be higher than the entire indicator is other loadings. Thirdly, The Heterotrait-Monotrait (HTMT) method is applied, with all values being less than the proposed threshold of 0.85

4.5.1 Fornell and Larcker Criterion

Result of the discriminant validity use Fornell-Larcker Criterion show in the table 3.

	C	R	RA	S	T	UM
Convenience	**0.824**					
Responsiveness	0.838	**0.868**				
Relative Advantage	0.747	0.768	**0.881**			
Security	0.774	0.796	0.727	**0.864**		
Trust	0.800	0.886	0.753	0.801	**0.896**	
Usage of Mobile Banking	0.841	0.890	0.763	0.813	0.891	**0.925**

With the requirement that the initial value of every single column must be bigger than every other value in that particular column, the Fornell-Larcker table values must be diagonal (Ab Hamid et al., 2017). The initial value of each column should also be higher than 0.7, according to another requirement of the Fornell-Larcker table. Values below 0.7 mean that there are factoring errors. As a result, not achieve FLC.

4.5.2 Cross loadings

Result of the discriminant validity use cross loading show in the table 4.

	Convenience	Responsiveness	Relative Advantage	Security	Trust	Usage of Mobile Banking
C1	0.771	0.664	0.671	0.624	0.663	0.630
C2	**0.811**	0.689	0.591	0.620	0.627	0.708
C3	**0.874**	0.685	0.588	0.657	0.653	0.703
C4	**0.835**	0.721	0.610	0.647	0.686	0.726
R1	0.646	0.777	0.572	0.599	0.622	0.643
R2	0.682	0.856	0.637	0.659	0.694	0.706
R3	0.717	0.870	0.640	0.674	0.756	0.765
R4	0.792	**0.917**	0.738	0.760	0.881	0.873
R5	0.786	**0.914**	0.725	0.743	0.853	0.844
RA1	0.631	0.621	0.897	0.581	0.648	0.641
RA2	0.620	0.628	0.893	0.590	0.631	0.652
RA3	0.635	0.646	**0.906**	0.612	0.631	0.645
RA4	0.737	0.777	**0.900**	0.704	0.738	0.741
RA5	0.655	0.694	0.807	0.703	0.655	0.670

S1	0.676	0.718	0.669	**0.894**	0.711	0.721
S2	0.592	0.648	0.588	**0.838**	0.660	0.666
S3	0.654	0.629	0.563	**0.848**	0.622	0.639
S4	0.745	0.743	0.679	**0.875**	0.761	0.772
T1	0.742	0.831	0.691	0.780	**0.940**	0.855
T2	0.766	0.824	0.710	0.757	**0.936**	0.839
T3	0.633	0.705	0.580	0.627	0.807	0.683
T4	0.719	0.808	0.709	0.696	0.894	0.805
UM1	0.792	0.866	0.746	0.753	0.858	**0.944**
UM2	0.793	0.828	0.728	0.776	0.838	**0.940**
UM3	0.808	0.836	0.706	0.764	0.833	**0.930**
UM4	0.714	0.760	0.639	0.715	0.766	0.886

Vertical values that are bold will be greater than their contrast, those threshold values are accepted in discriminant validity through cross-loading (Monecke & Leisch, 2012). As a result achieve cross-loadings.

4.5.3 Heterotrait-Monotrait (HTMT)

	Con	R	RA	Sec	Trust	UM
Convenience						
Responsiveness	0.950					
Relative advantage	0.842	0.823				
Security	0.893	0.874	0.795			
Trust	0.909	0.956	0.812	0.882		
Usage of Mobile Banking	0.943	0.948	0.812	0.885	0.955	

4.6 Model Fit and Explanatory Power

The R-square values for the structural models demonstrate strong explanatory power. For the Trust construct, the model explains 81.6% of the variance (R^2 = 0.816), with an adjusted R-square of 0.814, indicating minimal overfitting and robust predictive capacity. Similarly, the model for Use of Mobile Banking (UM) accounts for 79.4% of the variance (R^2 = 0.794), with no significant difference between the R-square and adjusted R-square (0.794), suggesting that the predictors included in the model are highly relevant and non-redundant.

These results underscore the effectiveness of the selected variables in explaining both Trust and UM. The near-identical R-square and adjusted R-square values for both constructs imply that the models are parsimonious, with no unnecessary predictors diluting their explanatory strength. The high R-square values (above 0.75) are particularly notable in social science research, where values above 0.50 are often considered substantial (Hair et al., 2019). This indicates that the hypothesized factors—such as security, convenience, or responsiveness—collectively exert a strong influence on users' trust and subsequent adoption of mobile banking in Karachi.

The findings align with prior studies emphasizing the centrality of trust in digital financial services (Shamsi et al., 2020; Omar et al., 2022) but go further by quantifying its predictive dominance in the context of a megacity like Karachi. The strong model fit for UM (79.4%) also highlights the practical significance of addressing barriers such as usability and reliability to drive mobile banking adoption in urban Pakistan.

Table 4 R-Square and Adjusted R-Square Values for Trust and Use of Mobile Banking (UM)

Construct	*R*-square	**Adjusted *R*-square**
Trust	.816	.814
UM	.794	.794

4.7 Path Analysis

The relationship between the dependent and independent variables is observed in the path analysis, in which the results of the hypotheses are show. The results of hypo-testing using path analysis are shown in Table 5.

	Estimates	T statistics	P values	Result
Convenience -> Trust	0.084	1.397	0.163	Not Supported
Responsiveness -> Trust	0.577	8.197	0.000	Supported
Relative Advantage -> Trust	0.097	2.118	0.034	Supported
Security -> Trust	0.206	3.516	0.000	Supported
Trust -> Usage of MB	0.891	58.850	0.000	Supported

The table shows that the convenience ($p<0.163$) has positive insignificant impact on trust. Likewise, Responsiveness ($p<0.000$) has a positive significant impact on Trust. Relative Advantage ($p>0.034$) has a positive significant impact on Trust. Moreover, Security ($p<0.000$) has positive significant impact on Trust. In addition, Trust ($p<0.000$) has positive significant impact on Usage of mobile banking.

Conclusion

The analysis has aimed to analyze the impact of customer trust in online banking, in Karachi, Pakistan. Hence, this research is based on quantitative study. This section goes into great depth on all the facts. The final collection of information requires confirmation as to whether it is prepared for data gathering or not. The final data-gathering procedure was initially addressed with the teacher, he confirmed approval of it. Once receiving permission, work on gathering and compiling the final data began. extremely maintained both scenarios for gathering info. These data were gathered using two different methods. Distribute questionnaires in physical copies or make one via the internet from a website and send it to various groups of people for gathering data. Regarding the reality, the hard copy item was challenging and unsafe for everyone given the existing circumstances. As a result, an online survey form that was simple for each person to fill out was devised for the data gathering. For the subject matter, an online poll received over 277 replies, which want to be targeted. SPSS is a software used to screen data. SPSS is an important tool that helps researchers to analyze their data without any advancement of skills.

After using SPSS, run SmartPLS for the following test. Some of these are bootstrapping, bling folding, and PLS algorithm. The justification of these tests is that the value of convergent validity of CR and AVE is greater than 0.7 and 0.50. The result of Fornell_Larcker and cross-loading was also achieved. The result is discussed in the literature review according to each hypothesis. All the hypotheses in the literature review are supported because the hypotheses are based on the model, which is a research model, and the model is based on the base paper I'm working on.

The path coefficient was used to determine the direct effect of the variables on each other, and the result of the path coefficient indicated that there is a positive relationship with each other.

Managerial Recommendations

Researchers' managers in banks, and legislators should consider the outcomes. The investigation proved that client fulfillment is a result of views regarding service level parameters such as safety website qualities, security/privacy, responsiveness, convenience and relative advantage of their services. Users who are happy with the services offered by a business are more likely to engage with it again as well as recommend its services to others. The financial institution offers electronic banking services are available to both present and future consumers.

Guidance for executives and policymakers has been grounded on each of the significant variables associated with internet service performance. To begin, dependability is an element that includes trust from customers in secure Internet banking offerings, delivery of offerings on time, or modification of banking web pages. "The trust that a person's statement or commitment is genuine along with the expectation that the other person will meet his/her obligations in an exchange relationship." For financial institutions to be deemed reputable or honest by their consumers, they must guarantee that any additional

key components of the online experience are offered to the client. To accomplish it, a great user experience that matches or exceeds the needs of consumers must be present in each face the client has with the services offered by online banking. Only after that trust will grow.

Furthermore, the response is a factor that gauges how simple it is for customers to reach bank workers who can respond fast as well as effectively to customer queries & concerns. Users who have not succeeded in making purchases online appear to have found it pricey to call support service workers using non-toll-free phone numbers, which affects the comfort of finding bank customer support staff. As a result, financial institutions are recommended to keep themselves strong by providing lower phone call costs or other viable and less expensive alternatives for communicating with their client care people.

Moreover, Convenience means how well your website meets the user requirements. The bank should make its website in such a way that the customers do not have any problem logging in to their website and logging out of its web page loading, the bank should improve its website and increase its download speed.

Limitations and Future Research

This study shows a significant impact on customer trust with online banking, but it still has some limitations. The study has certain limitations. First, this study focuses exclusively on five independent components. However, there may be many additional elements that impact consumer trust. Furthermore, this study did not examine demographic parameters such as gender, age, and race, which may be associated with mobile banking uptake and satisfaction. Customers' expectations and trust can be influenced by both demographic and geographical considerations. These phenomena deserve extensive examination. Future study should explore how demographic characteristics, such as culture and socioeconomic status, influence the impact of service quality on consumer trust. Second, the sample size is quite small when compared to the big population. As the number of mobile banking users grows, more research is needed to identify trends in consumer behavior and improve the quality of mobile banking services.Third, Future researchers should collect data in larger amounts, and from different perspectives. This study is only limited to Karachi, Pakistan. Future researchers should broaden their horizons and focus on as many cities as possible for their findings. This study is based on surveys. Future researchers should also expand the target group of this research.

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