

Received: January 2024 Accepted: February 2024

DOI: <https://doi.org/10.53555/ks.v12i2.2878>

Investigating the Factors Influencing the Acceptance of Islamic Mobile Fintech Service A Utaut2 Perspective

*Muhammad Abdullah Idrees¹, Muhammad Nadeem Khan², Muhammad Farhan³, Muhammad Umair Zafar⁴

Abstract

The philosophy of FinTech is initially a trend all over the world to include more people in the money system, and the financial segment of Pakistan has also entered the new relativism stage drama of innovations as it witnesses a surge of financial solutions. Every now and then new mobile FinTech service providers take a stage and show amazing success. They succeed at the rate that eclipses the one of classic banking companies. Nevertheless, in the sphere of Islamic banks as the leaders on this market, they have obstacles to overcome in terms of making the great number of people appreciate the advantages of Islamic Mobile FinTech Services (MFS) in particular. With the aim of determining the factors that spur customers' promotion of using Islamic MFS in Islamic banks, this study will centre on this issue. This investigation used the modified UTAUT2 model. Database was obtained via online Google form wherein 310 Islamic Bank customers were surveyed. The next step was to put the information through the structural equation model in SMART PLS which went through the process. Research results reflect that social influence, facilitating conditions, price, and perceived credibility show that positive effects on the acceptance of Islamic MFS. However, the appearance of performance expectancy and effort expectancy does not seem to be the restraining factors for people to engage themselves in Islamic MFS. Those results offer great cognition to academicians, the researchers, the Financial Services Market providers, and the FinTech service companies.

Keywords: *fintech, Islamic Banks, Islamic mfs, utaut2*

Introduction

The financial services digitalization has reorganized them as well as transformed into many models that grant such access for an extensive number of users to use. The public budgeting constitutes one of the aspects of the society which has definitely undergone a significant metamorphosis due to the increasing interconnected technologies together with smart automation that has gained momentum. The tech quite simply shook up the financial subsection making all these new mechanisms and models which are now used as creative alternatives (Lxunger and Mietzner, 2020). A FinTech platform is now adopted globally for banking making it baseline for many banks to achieve operation efficiency and financial services personalization. Fintech is an emergence of future-proving technology innovations like cloud computing and internet, focusing on banking, payments, returns, and other services (Giglio, 2021). According the Market Research Firm McKinsey and Company, the digital banking

¹ Lecturer at Salim Habib University, Karachi, Pakistan

*Corresponding Author: Muhammad Abdullah Idrees, Email: m.abdullahidrees91@gmail.com

² Associate Professor at Iqra University, Karachi, Pakistan

³ Assistant Professor at Bahria University, Karachi, Pakistan

⁴ Manager - Alumni, Marketing and Communications at Dow University of Health Sciences, Karachi, Pakistan

existence in emerging countries is becoming more and more popular than it is becoming in those who are in a transitioning stage from one power status to the other in the Asia-Pacific region (McKinsey, 2021). From 20% to 33% was the rise of active users of digital financial services in Asia-Pacific Region in the period of 2017-2021, this increasing figure peaked in reaching 88% in 2021. This extensive usage had recently seen the large majority of the customers which are from the Asia-Pacific regions which are around 90% getting adopted.

Mobile FinTech Services (MFS) are extensively accessible by FinTech companies and are widely utilized within the banking sector. MFS states to the accessibility of financial facilities for both businesses and non-business entities through mobile phones (Hasan and Islam, 2021). Customers utilizing financial services can securely store their funds in MFS accounts and effortlessly conduct money transfers with anyone, anytime, and anywhere. The banking industry in Pakistan continues to embrace technological advancements through the integration of FinTech services, particularly by private sector banks. Various private companies offer a total of 13 mobile FinTech services, with 9 provided by commercial banks and 3 by Islamic Banks in Pakistan. According to data from Pakistan Bank, there are approximately 185.06 million MFS account holders in the country. In September 2022, the average daily transaction volume in Pakistan amounted to 4,083.7 million Rupees, representing a 1% increase compared to August 2022. These transactions encompass peer-to-peer (P2P) businesses, salary payments, electronic payments, commercial packaging, government services, and more. In the first quarter of 2022, Islamic banking customers accounted for 28.21% of the market share. Despite the potential demand from Islamic banking customers, they are not able to access Islamic MFS due to concerns regarding service reliability. In contrast, traditional bank MFSs are expanding their customer base by increasing the number of MFS agents to ensure broader coverage across the country. This strategic approach enables existing MFS service providers to attract more customers by ensuring convenient access to MFS agents in proximity to customers. Successful companies recognize the importance of staying updated with technological advancements. Embracing technology allows companies to effectively adapt to market challenges, streamline processes, and enhance customer service. The growth and success of a company largely depend on how well customers embrace new technologies provided by the company. Various models and techniques, such as the Technology Acceptance Model (TAM) developed by Davis et al., have been employed to analyse the approval of new technologies from the viewpoint of consumers. While a study on FinTech mobile services has been conducted in Pakistan, there is a lack of prior research on the acceptance of FinTech mobile services specifically among customers of Islamic banks. As the previously-mentioned studies involved limited number of subjects and small sample sizes, additional inquiries ought to be carried out in order to fill in the existing knowledge gaps and to contribute to the field.

Problem Statement

This study will be dedicated to the determination of many elements that customers of Islamic banks take into account for a better alternative choice. This aim will be achieved with the selection of UTAUT2 as the leading theory because of its capabilities to explain advertising acceptance more distinctly than other philosophies, models, and approaches in the current tech acceptance context. Additionally, UTAUT model was tailored to fit the context of this study into handle practical concerns and closes theory own research gap.

Literature Review

Islamic Mfs Acceptance (Imfsa)

The interplay between Islamic Microfinance (IMF) and technology adoption and implementation has been facilitated to make up for the gap in outcome and awareness (Peek et al., 2014). By knowing the elements, such as the user acceptance of new technologies, a service provider can predict how the population actually act of using these instruments A behavioural approach was taken by Jin and colleagues (2019) to examine how clients in Malaysia satisfied themselves with FinTech products and services. Similarly, research that focuses on the implementation of Islamic FinTech utilizes behavioural intentions as an indicator of the process of consumer technology adoption behaviour (Ketut Putra Rahim et al., 2022).

Unified Theory of Acceptance and Use of Technology (UTAUT2)

Relying on the Unified Theory of Acceptance and Use of Technology model (UTAUT) Venkatesh et al. (2003) achieved certain influential results and the model is highly represented among the other theories of technology acceptance being widely cited as one of the leading ones. To begin with, this model considered the organization as its most important perspective. And the UTAUT advanced version has come out that revolves around the individual's percept, made by Venkatesh et all (2012). The UTAUT2 model incorporates seven sovereign variables, including performance, job expectations, social influence, enabling situations, value, attitude, and hedonic motivation, to evaluate consumer behaviour in adopting new technologies. Previous studies, such as those conducted by Mansur and Ali (2022) on Shariah-compliant FinTech adoption among Indonesian millennials. The UTAUT2 model has been recommended as a primary model for machine learning by Tamilmani et al. (2021). However, it is important to note that the UTAUT2 model primarily predicts behavioural intentions and does not fully explore the components related to pleasure (Choi, 2016). Also, with the advent of novel technological innovations developing during the current day, the phrase of "a habit" may not be a convenient criterion (Tamilmani et al., June 2018). Critique has been addressed to the fact that self-randomization method has become a possible limitation in the UTAUT method (Lee et al., 2003). Therefore, since Muslim MFs concept in Pakistan is not a very old one, it does not apply to the UTAUT2 model and the independent variables are not considered in the study as well. In contrast, instead the discussion question is centred on the function of Islamic MFs coming into relevancy. In addition to that, other riels studies are proved for additional independent bits of information including security knowledge, confidentiality, and acknowledgment. Trust per se, which can have the potential to become the main determinant of consumers' intentions regarding new technologies adoption, might be defined as the perception of competent and trustworthy entity (see Erdem and Swait, 2004). The literature has already shown that people have apprehensions against using new technologies as they are learned that they are not reliable (Amin et al., 2008). Furthermore, the work of Tarhini et al. (2016) even suggests that trusting the UTAUT model to some degree yields a more complete and accurate portrait of consumer behavioural response. Taking this into consideration, perceived trust is taken into a main variable.

Performance Expectancy (Pexp)

The rising of an individual's performance after practicing a skill or other activity is commonly termed as expectation (Cruz-Cunha, 2013). The study done by Alkhwald et al. (2022) on FinTech adoption intentions during the COVID-19 pandemic in the developing countries have

shown that FinTech adaptation exists between FinTech adoption intentions and FinTech adoption behaviour. Also, similar analysis was seen during a financial revolutionary survey among port users in Ghana, where they also received an enhanced rating (Antwi-Boampong et al., 2022). With the foregoing issues as a focal point, the following provides the proposed hypotheses for the study.

H1. Performance expectations has a positive impact on the acceptance of Islamic MFS by customers of Islamic banks.

Effort Expectancy (EExp)

How far the expectations of the consumers against the notion that fulfilling some tasks takes some effort is associated with effort expectancy (Cruz-Cunha, 2013). Under the FinTech innovation for financial inclusion with the objective Senyo and Osabutey (2020) do this work. Their research shows a positive relationship between users' willingness to avail the mobile money services and the effort they were ready to put in. Similarly, Rabba'i (2021) discloses that Kuwait's expectation of improving Fintech advances attracts users to adopt the. Considering the aforementioned discussion, here the research makes the following hypotheses:

H2. Effort expectations have a positive impact on the acceptance of Islamic MFS by customers of Islamic banks.

Social Influence (SInf)

The social influence is the tendency of a person to support values of the social community even to appear like that to meet the expectations of the social groups, e.g. the family members and friends (Venkatesh et al., 2012). Research on how consumers influence open banking-led FinTech adoption by preserving and protecting their complete privacy was found to have a positive correlation with acceptability (Chan et al., 2022). Similarly, Xie et al. (2021) also found that the platform was widely used through the studies they conducted around FinTech platform. Taking into account what was already mentioned, this research "presents" the following hypothesis.

H3. Social Influence has a positive impact on customers of Islamic banks to adopt Islamic MFS.

Facilitating Conditions (Fcon)

A person is classified an enabler to the extent he or she believes that today's technology can drive and regulate tomorrow's technology use (Chan et al., 2010). Solti (2019) examines the adoption of mobile payments in India and determines that promotional events are impactful, exerting a positive influence on the adoption of mobile payments. Chawla and Joshi (2019) on the other hand look into the rising consumer requirements and attitudes towards mobile wallets finding out that most of the users are guided by motivation and their passion towards mobile wallets. Based on the bullet-pointed paragraph above, a set of following hypotheses are presented below.

H4. Facilitating Conditions have a positive impact on the acceptance of Islamic MFS by customers of Islamic banks.

Price (Pr)

Meaning that mental accounting is a cognitive evaluation process by which decision makers weigh up the respective benefits and costs that an app offers, as outlined by Dodds et al. (1991). The difference between benefits and costs may indicate costs, but if the benefits are higher

than monetary costs, joining them is better and positively impacts on their acceptance rate (Venkatesh et al., 2012). Consistent prices on the Internet food delivery apps analysed would influence user response train on these Internet applications directly (Yeo et al., 2017). Partaking the above argument, this investigation states the given hypotheses below.

H5. Price has a positive impact on the customers of Islamic banks to adopt Islamic MFS.

Perceived Credibility (Pcre)

Trustworthiness belt from the user's point of view means the safety, privacy, and security confidence he/she has on the service (Wang et al., 2003). Research performed by Gupta et al. showed that clients who trust banks more were more likely advertised their bank products more than those who didn't trust their banks Source: In addition, a few recent trust related studies have found that it might assist in the purchase when consumers make online spending (Tarhini et al., 2016; Yuen et al., 2010). Based on what we have discussed above; the next research will formulate the following research hypothesis.

H6. Perceived Credibility has a positive impact on the acceptance of Islamic MFS by customers of Islamic banks.

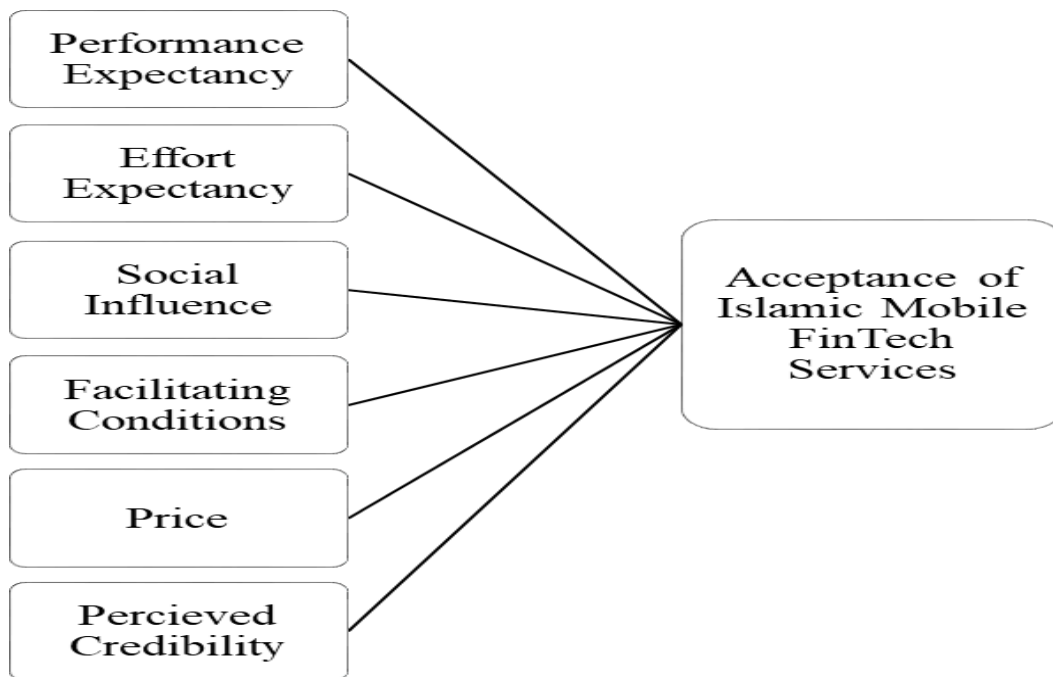


Figure 01: Conceptual Framework.

Methodology

The primary goal of this research was to examine the factors of Islamic MFS adoption among customers of Islamic banks, making it an explanatory research. The study employed a cross-sectional design, aiming to develop and test hypotheses that elucidate the relationships between variables. Notably, this research represents a one-time assessment conducted through partial studies.

Sampling and Data Collection

The oriented part of the research, to be more precise, on customers of the Islamic banks. In accordance with Barclay et al. (1995), the suggested sample size for variable analysis must be at least 10 times bigger than the number of variables utilized to demonstrate a hypothesis or the number of investigated samples that aim a construct. Worth noting that this study should use the standard deviation for the sample size of at least 280 respondents. To collect data, a questionnaire was developed, encompassing six independent variables: performance, effort, social forces, conditions that facilitate, price, and reliability in one's mind. The use of Islamic MFS, which is the measure of the subject's Islamic MFS lifestyle, was independent from other variables. The bank customers were asked to fill in the online survey. Indicators of dependent and independent variables were developed based on researches in earlier studies. The performance expectations, effort expectations, social impact, facilitation conditions, and acceptance criteria of Islamic MFS were all borrowed from the result of the study regarding Islamic FinTech by Rahim et al. (2022). The index of cost was made by the work of Lin et al. (2020) and the visual reliability index was reviewed according to Gupta et al. (2019). The survey dispersion was done using Google forms in which the responses were found to be 310 customers.

Data Analysis

In line with recommendations from prior research (Hassan et al., 2022a, 2022b), a structural equation model was employed in this study. Data analysis was conducted using SMART PLS 3.2.9 software, which is recommended by Hair et al. (2017) for small-scale data. Both statistical and functional analyses were carried out to examine the data. Standard tests were utilized to gauge the validity and reliability of the model, which encompasses various variables related to the research problem, explanatory power, and statistical significance.

Findings and Analysis

Table 01: Demographic Profile

Demographic Variable	Frequency	Percentage
Do you have knowledge of Islamic mobile FinTech services?		
Yes	262	84.50
No	48	15.50
Gender		
Male	197	63.55
Female	113	36.45
Age Group		
20 - 30	79	25.40
31 - 40	97	31.30
41 - 50	64	20.60
51 - 60	60	19.40
60 plus	10	3.30
Income Level (Rupees)		
0 – 25,000	67	21.60
25,001 – 50,000	110	35.50
50,001 – 75,000	26	8.40
75,001 – 100,000	72	23.20
100,000 plus	35	11.30

The survey was divided into two sections, namely Part A, which focused on gathering information about the demographic characteristics of the respondents, and Part B, which included questions related to the variables under investigation. The findings presented in Table 1 indicate that 84.5% of customers from Islamic Banks are aware of the service, while 15.5% of Muslim MFS users do not have knowledge about it. In terms of respondent demographics, 63.55% were male, and 36.45% were female. Approximately 56.7% of the respondents fell within the age range of 20 to 40 years, while around 40% were between 41 and 60 years old. Furthermore, the majority of respondents (67.1%) reported an income below 50,000, whereas approximately 33.5% had an income above 75,000.

Measurements Model

The connection between the outer aspect and its indicator is developed by measurement model (Henseler et al. 2016). This component will consist of different validity and reliability indicators. With a model load on SMART PLS 3.2.9 professional software version of at least 0.708 after the PLS algorithm successfully completed. However, this weight varies from 0.40 to 0.70. By creating these two indexes, composite reliability and AVE rise not necessarily up to the limit value (Hair et al. 2019). Table 2 reports that every costs are greater than 0.708 excluding those costs which are 0.616 in terms of FCon3.

Table 02: Outer Loading Values

	EExp	FCon	IMFSA	Pr	PCre	PExp	SInf
EExp1	0.866						
EExp2	0.857						
EExp3	0.874						
EExp4	0.874						
FCon1		0.868					
FCon2		0.877					
FCon3		0.616					
IMFSA1			0.894				
IMFSA2			0.885				
IMFSA3			0.865				
Pr1				0.775			
Pr2				0.845			
Pr3				0.788			
PCre1					0.900		
PCre2					0.925		
PCre3					0.874		
PCre4					0.923		
PExp1						0.877	
PExp2						0.882	
PExp3						0.854	
PExp4						0.881	
SInf1							0.862
SInf2							0.872
SInf3							0.778
SInf4							0.773

Whether the construction of the model was reliable and valid are the next crucial issues to address. The consistency of the instruments was calculated using Cronbach's Alpha and composite reliability. To comply with the requirements, the Cronbach's alpha index needs to be at least 0,7 and composite reliability assures - 0,5 or higher (Hair et al., 2019). The credibility was scrutinized through the convergent validity and discriminant validity. The relationship was measured by calculating mean extracted variance (MEV). This boils down to the fact that, for

validity, the threshold value should be greater than 0.50 (Hair et al., 2019). Discrimination was checked out by HTMT score which is a heterotrait - monotrait. Henseler et al. (2016) stated that at the value of 1, the HTMT score should not have a pair of correlation coefficients, which will indicate confidence intervals of statistical significance.

Table 03: Reliability Test

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
EExp	0.886	0.921	0.744
FCon	0.705	0.836	0.634
IMFSA	0.856	0.913	0.777
Pr	0.724	0.845	0.645
PCre	0.927	0.948	0.820
PExp	0.897	0.928	0.763
SInf	0.840	0.893	0.677

Table 04: Heterotrait-Monotrait (HTMT) Scores

	EExp	FCon	IMFSA	Pr	PCre	PExp	SInf
EExp							
FCon	0.858						
IMFSA	0.813	0.891					
Pr	0.844	0.804	0.895				
PCre	0.710	0.758	0.837	0.766			
PExp	0.841	0.792	0.763	0.788	0.614		
SInf	0.751	0.797	0.857	0.803	0.759	0.679	

Structural Model Assessment

The model elucidates the relationship among variable constructs. Previously progressing to the subsequent stage, it is vital to assess the compatibility among these constructs. The VIF (Variance Inflation Factor) score serves as a metric to detect the issue of multicollinearity. According to Hair et al. (2017), all configurations must have a threshold value below 5 to be deemed valid.

Table 05: VIF Scores

	VIF
EExp1	2.404
EExp2	2.328
EExp3	2.455
EExp4	2.257
FCon1	1.778
FCon2	1.763
FCon2	1.167
IMFSA1	2.259
IMFSA2	2.261
IMFSA3	1.958
Pr1	1.348
Pr2	1.637
Pr3	1.437
PCre1	3.041
PCre2	3.834
PCre3	2.835
PCre4	4.000
PExp1	2.651
PExp2	2.707
PExp3	2.348
PExp4	2.461
SInf1	2.269
SInf2	2.413
SInf3	1.545
SInf4	1.675

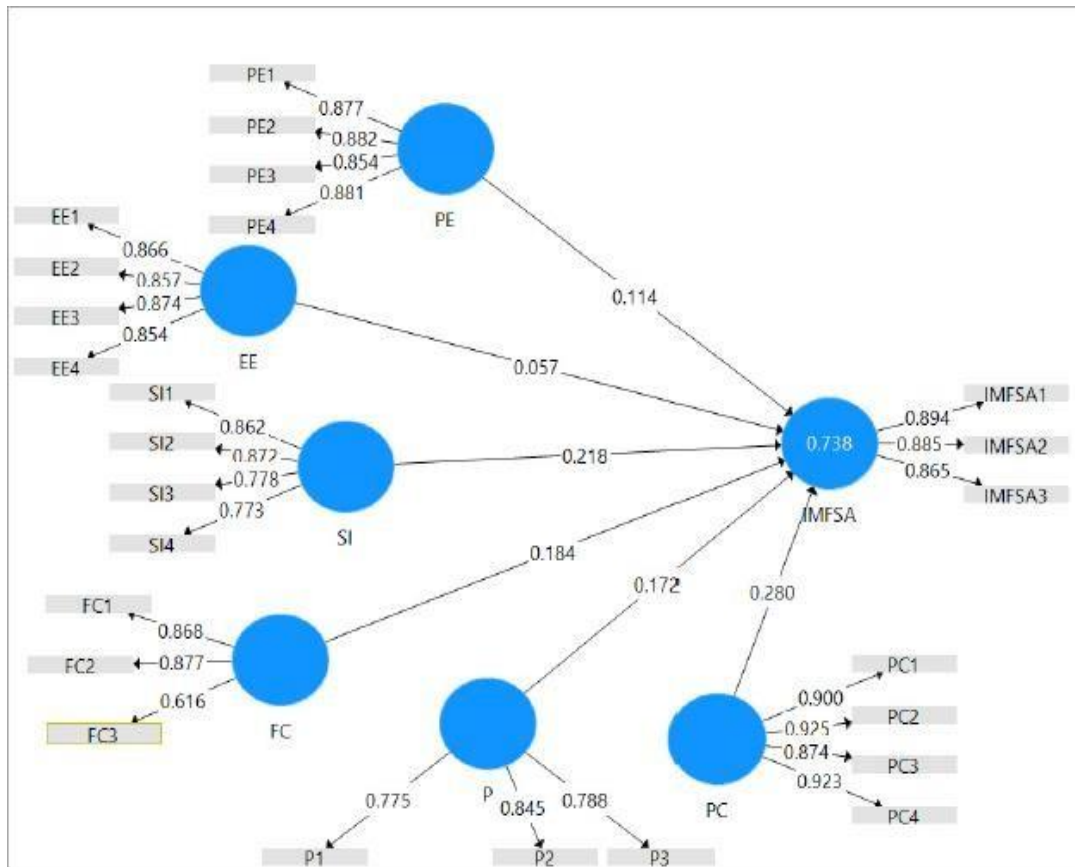


Figure 02: R² Value Result from Smart PLS.

Table 06: Path Coefficient Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
EExp=>IMFSA	0.058	0.056	0.071	0.816	0.414
FCon=>IMFSA	0.188	0.188	0.054	3.474	0.001
Pr=>IMFSA	0.173	0.173	0.055	3.226	0.001
PCre=>IMFSA	0.285	0.274	0.061	4.657	0.000
PExp=>IMFSA	0.112	0.115	0.057	1.952	0.051
SInf=>IMFSA	0.217	0.211	0.062	3.415	0.001

Discussion

With rise in usage of smartphones and access to Internet facilities in Pakistan, financial mobile services are getting popular among the people. As of 31st of August 2021, there have been more than 178 million cell phone users in Pakistan. Besides, the Internet penetration has been registered at 31.5% (Statista, 2021). The number of Pakistan’s MFS account holders is currently 185.06 million and these are expected to soar hereafter. This research aims to identify attributes that determine the customers of Islamic bank.

The findings of the study indicated that community intervention has a positive impact, aligning with previous studies by Baabdullah (2018) and Patel (2018). Pakistani individuals place great importance on family and are inclined by their family members' thoughts and suggestions, particularly in financial decision-making. Additionally, millennials are influenced by peer feedback. The simplicity of Islamic MFS has an important positive influence on its acceptance, which is consistent with the results of studies conducted by Chawla and Joshi (2019) and Verkijika (2018). Islamic banking customers are actively searching for services around the clock, although offline trading functionality is currently unavailable in MFS Islamic Bank. Furthermore, the study results indicate that reasonable pricing is a crucial factor.

The cost associated with using technology is a necessary consideration for user behaviour (Alalwan et al., 2018). While most services offered by Islamic MFS are similar to traditional methods, the cost factor can play a significant role in attracting customers. The bonus provided for each transaction can also impact the choice of Islamic MFS among Islamic banking users. Additionally, trust was found to have a positive effect.

As Islamic MFS is relatively new for Islamic banking customers, reliability is a major concern. MFS applications provide safety, security, transparency, and business relationships to mitigate commercial risks, thereby instilling customer confidence. However, job prospects also play a vital role. The desire for hope does not appear to hinder the acceptance of Islamic MFS. The usage costs of smartphones and the Internet are higher, particularly in urban areas. The lack of correlation between perceived enjoyment (PE) and perceived ease of use (EE) may be attributed to the fact that a majority of respondents (56.7%) fall within the 20 to 40 age group, which is typically associated with higher technology usage. Software applications for research and office automation are commonly used in this age group, and their choice of Islamic MFS is unaffected by operational factors and the user-friendliness of the MFS application interface. However, it is important to note that most studies have reported positive results. Islamic MFS providers are aware of their customers' expectations and concerns, striving to meet them in order to promote the adoption of Islamic MFS.

Table 7: Summary of Hypotheses

H1: Performance expectations has a positive impact on the acceptance of Islamic MFS by customers of Islamic banks	Not Accepted
H2: Effort expectations have a positive impact on the acceptance of Islamic MFS by customers of Islamic banks	Not Accepted
H3: Social Influence has a positive impact on customers of Islamic banks to adopt Islamic MFS	Accepted
H4: Facilitating Conditions have a positive impact on the acceptance of Islamic MFS by customers of Islamic banks	Accepted
H5: Price has a positive impact on the customers of Islamic banks to adopt Islamic MFS	Accepted
H6: Perceived Credibility has a positive impact on the acceptance of Islamic MFS by customers of Islamic banks	Accepted

Conclusion

Financial institutions nowadays themselves cope with the rapid changes and new trends of the fourth industrial revolution. Pakistan, as an Islamic country with a Muslim population of approximately 91%, experiences significant demand for Islamic banking. The recent opening

of branches and the business-friendly government policies have contributed to the growth of Islamic banking in Pakistan. Many traditional banks have responded to this demand by either establishing new Islamic branches or offering Islamic products and services through dedicated windows. However, traditional banks' mobile financial services (MFS) are more popular than those offered by Islamic banks in Pakistan. The objective of this study is to identify factors related to Islamic business, focusing on the influence of intervention status, values, and beliefs on the acceptance of Islamic MFS among customers of Islamic banks. The study highlights that customer experience is a crucial factor influencing adoption. Customers are also mindful of business risks, MFS application standards, security, consistency, and stability when considering MFS services. Offline functionality is considered an important criterion for qualified service. Additionally, pricing should be more competitive compared to MFS offered by traditional banks. Furthermore, positive recommendations from family and friends play a significant role in encouraging customers to adopt Islamic MFS. MFS providers must adapt their offerings to meet the needs and preferences of Islamic banking customers.

This study suggests new research directions and updates to the existing UTAUT2 model. It acknowledges that the inclusion of hedonic motivations and attitudes alone is insufficient to capture all the relevant components of satisfaction. Moreover, "attitude" is not an appropriate measure for recent updates in business technology. The study recognizes the importance of reliability; as previous research has demonstrated its positive influence on technology acceptance. This planning process will prove valuable for researchers conducting behavioural studies on new technologies. The research findings are beneficial for MFS providers in both Islamic and non-Muslim banks, with a particular emphasis on building trust in Islamic MFS applications. It is essential for MFS providers to offer round-the-clock customer support and offline functionality, as well as provide promotional incentives to attract customers. Pricing strategies should also be carefully considered to ensure customer attraction. Moreover, MFS companies should:

- Highlight your products and services by providing testimonials, taking videos or photos of your products, and interacting with your potential customers on social media platforms such as Facebook, Instagram, Twitter and YouTube.
- Develop staff trainings to sales representatives of credit institution about the MFS app promotion.
- Get the clearer picture about the technology behaviour of your customers and then concoct the right measures to keep the customers flocking to your product.

Limitations and Future Research

One of the major limitations of this research instance is small sample size. As another important issue, this research was based on data from the clients of Islamic banks in Pakistan. In order to increase the research quality and replicate the results, the next study should include the values, benefits and risks that firm employees perceive. Moreover, the number of observations would be one more variable open for investigation.

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