

Factors Influencing Fintech Adoption in Islamic Banking Services in Pakistan

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ABSTRACT

Aim of the Study: This study aims to identify key determinants of Islamic banking Fintech adoption in Pakistan utilizing a unified techno-economic-socio-religious framework.

Methodology: The data for this research were collected from 300 respondents through a structured questionnaire using a quantitative and cross-sectional research design. Multiple regression analysis was applied to estimate the impact of independent variables on Islamic Fintech adoption.

Findings: The results reveal that perceived usefulness, perceived financial cost, social norms, and security concerns significantly influence Islamic Fintech adoption. Among these, usefulness and cost considerations emerge as the strongest predictors. In contrast, attitude toward halal banking and perceived self-expressiveness do not exhibit a statistically significant effect once functional and risk-related factors are considered.

Conclusion: This study advances Islamic Fintech literature by offering an integrated techno-economic-social framework and empirical evidence from Pakistan, a context that remains underexplored. The findings provide actionable insights for Islamic banks and policymakers seeking to accelerate Fintech adoption while maintaining Shariah compliance and consumer trust.

Keywords: Fintech Adoption, Financial Inclusion, Usefulness, Perceived Cost, Social Norms, Financial Access.

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1. INTRODUCTION

Financial technology, Fintech hereafter, represents the interaction of technology and finance, rephrasing how financial services are delivered globally (Deloitte, 2017). Domat (2024) argued that ideology of Islamic finance, guided by Shariah principles, is not different than Fintech, aiming for greater financial inclusion and transformative economic development, albeit through different mechanisms. More precisely, Fintech through technological innovation and Islamic finance through ethically grounded, Shariah-compliant financial structures (Goh & Sun, 2014; Li et al., 2022). The convergence of Fintech and Islamic finance has generated both, practical and scholarly, debate and interest, especially in

emerging economies like Pakistan where the demand for stable, inclusive, and ethically and Shariah complaint financial solution is particularly acute.

The guiding principles of Islamic finance were derived from the Holy Quran, Sunnah, and Shariah, prohibiting *riba*, *maysir*, *gharar*, and speculative activities to foster development (Din et al., 2021). Systems based on Shariah principles not only served as ethical safeguards but also provides mechanisms for financial stability (Haq & Shafiq, 2016). Butt and Chamberlain (2025) Hasan and Dridi (2011) argued that Islamic banks showed more resilience compared to commercial banks during the global financial crisis. Hence, this greater resilience not only enhance the legitimacy of Islamic banking but also attracted the global attention (Pusparini et al., 2025). Past studies such as Memon et al. (2025) and Shahimi and Zahari (2025) supported the notion that due to unique value-based approach, emphasizing societal welfare alongside profitability, Islamic banks has a clear competitive advantage over commercial banks.

Because of this competitive advantage, Islamic banks witnessed a sharp expansion, for instance, the value of global Islamic finance assets experienced 14.9% rise in 2024 (valued US\$3.88 trillion) compared to 2023 (Islamic Financial Services Board, 2025). Bank Negara Malaysia (2024) and Dinçkol (2021) emphasized on Islamic banks to sustain this momentum by integrating Fintech. Hence, Islamic banks increasingly turned to Fintech initiatives. Amin (2007) and Amin et al. (2008) reported that initial Fintech adoption faced several challenges such as low consumer acceptance, shaky trust, technological limitation, and cost of adoption were few to mention. Despite all these challenges, Kismawadi (2025) reported Fintech adoption not only resulted in greater financial inclusion but also improved operational efficiency, reduced transactional cost, and delay. The study of Odumuwağun (2025) and Oladinni and Odumuwağun (2025) reported that Fintech adoption, however, introduced new challenges such as security and regulatory issues, data privacy concerns, cybersecurity threats, and the potential misuse of financial technologies underscore the need for proactive governance. Besides these challenges, Islamic banks must adhere to Shariah principles to maintaining integrity, transparency, and fairness in contracts. Putting it differently, Islamic Fintech is not only a regulatory formality but a critical safeguard against exploitative practices such as speculative instruments, frauds, and hidden fees (Kismawadi, 2025).

Given different guiding principles compared to commercial banking, factoring impacting Islamic Fintech adoption may differ. Past studies such as Adeel et al. (2023), Ali et al. (2021), Chaimaa et al. (2021), and Goh and Sun (2014) concluded that cost efficiency, perceived security risks, self-expressiveness, and perceived usefulness as key determinants of Fintech adoption. On the other hand, attitude towards halal banking remained an important predictor for online Islamic banking adoption (Mohsin & Aftab, 2013; Sumaedi et al., 2015). A study conducted by Yu (2012) concluded that perceived creditability, cost, and social norms were significant determinants for Fintech adoption in Taiwan whereas Echchabi and Aziz (2012) reported that religion played the key role in Islamic Fintech adoption in Morocco. Similarly, the study of Raza et al. (2020) argued that attitude towards Shariah compliance financial products remained the most significant predictor of Islamic banking Fintech adoption in Pakistan. Most of the existing studies including mentioned earlier on Fintech adoption remain fragmented, often privileging either technological factors such as usefulness, security, and credibility, or economic considerations like transaction costs, while sidelining socio-religious influences such as halal attitudes, social norms, and self-expressiveness. In reality, financial decisions are simultaneously shaped by technology performance, economic consideration, and socio-religious factors. Therefore, the absence of a unified techno-economic-socio-religious framework limits explanatory power and leaves Fintech adoption in Islamic banks underexplored. The present study addresses this gap by considering technological, economic, and socio-religious factors to investigate Islamic banking Fintech adoption in Pakistani context.

2. LITERATURE REVIEW

Fintech is the application of technology to execute financial transaction (Tyagi, 2024). Oladinni and Odumuwağun (2025) outlined Fintech usage in financial sector including but not limited to blockchain-based transactions (cryptocurrency, smart contracts), robo-advisory, mobile wallets, peer-to-peer lending,

and digital payments are few to mention. Kismawadi (2025) argued that Fintech adoption greatly helped banking industry to expand financial inclusion and improve service efficiency. Napitupulu et al. (2025) stated that Fintech improves financial inclusion, especially desirable for countries where majority population unbanked, through enhanced banking performance and reduced operational costs. Literature also suggested that financial inclusion could further be boosted by integrating Fintech with Shariah and microfinance to encourage underserved Muslim communities (Banna et al., 2021; Hassan, 2015; Hidayat et al., 2019). Advocates of classic adoption theories such as Technology Acceptance Model (TAM) and Diffusion of Innovation Theory (DOI) concluded that ease of use and utility were the key technology adoption parameters (Ali et al., 2019; Mousa et al., 2021; Rogers, 1983). However, Unified Theory of Acceptance and Use of Technology also incorporated the social norms along with the factors identified by TAM and DOI (Yu, 2012). Similarly, Goh and Sun (2014) also extended TAM and concluded that, besides ease of use and utility, religious attitude, self-expressiveness, and perceived creditability were significant determinants for Islamic Fintech adoption.

Perceived usefulness is defined as the degree of practical benefit or performance enhancement (Amin et al., 2008). According to Singh et al. (2020), perceived usefulness in Islamic banking Fintech context may provide several benefits such as greater convenience, faster transaction, and improved financial management. Literature reported perceived usefulness as one of the most significant predictor of technology adoption across various settings (Lim et al., 2019). For instance, Almashhadani et al. (2023) noted that innovations offering clear relative advantages (such as time or cost savings) are adopted more readily. Fintech services clearly aim to provide such advantages: mobile and online banking enable transactions independent of location, saving users travel and waiting time (Au & Kauffman, 2008). They also offer ubiquity and instantaneity, which traditional banking often lacks (Porath, 2017; Yu & Guo, 2008). Research on mobile payment and banking services indicates that the greater usefulness of the services for customers' financial needs (e.g., being able to easily pay bills or transfer funds) increases their intentions to use the new services significantly (De-Kerviler & Demoulin, 2017). In the Islamic banking sector, helpful Fintech applications might encompass Zakat (almsgiving) calculators, Sharia-compliant investment apps, or possibly hassle-free Islamic payment platforms. Fintech can therefore enhance the perceived usefulness of Islamic banks' products and services, thereby boosting the adoption rate, as it can provide real monetary gains and convenience.

H1: Perceived usefulness of the Fintech service positively affects the intention to use Islamic banking Fintech

The financial costs, whether in terms of monetary or effort, are a known challenge for the adoption of new financial technologies. Luarn and Lin (2005) described perceived financial cost as costs that might be incurred for the use of mobile banking (including transaction cost, data charge, etc.). A higher perceived cost is more likely to cause consumers to reject a service, particularly in price sensitive markets (Mahmud et al., 2023; Nassar et al., 2021). Empirical research shows that perceived costs are also a key determinant in users' attitudes towards the adoption of Fintech services, as those who believe that using the service will be costly are less likely to adopt it (Munnukka, 2005). For instance, in Taiwan, perceived fees was found to have a negative impact on mobile banking intentions (Zhao et al., 2022). On the other hand, if it's believed that Fintech offers a financial benefit (such as reduced fees or better interest rates than traditional banking), it can drive adoption. In the Islamic finance, the cost comes with an extra layer of complexity. A lack of affordable sharia-compliant services in their region has been a cause of financial exclusion of many Muslim customers (Sain et al., 2016). Fintech may bring down the operating costs of banks and therefore customer service fees. Recent studies have pointed to the importance of the positive impact of Islamic banking on operational efficiency: The convergence of Fintech enhances the efficiency of Islamic banks by automating processes and increasing their digital presence, thus reducing their overhead and enabling them to reach customers more effectively and with greater efficiency, thereby contributing more positively to financial inclusion (Banna et al., 2021; Li et al., 2023; Ngo & Nguyen, 2024; Wen et al., 2023). Therefore, the overall effect of perceived cost on adoption could be a function of

the delivery of the value proposition. The more user perceives the benefits from Islamic Fintech (such as time saving, eliminating travel costs, improved profit-sharing rates) are greater than the fees and learning curve, the more likely it is that users will adopt it (Mahmud et al., 2023). Low user costs and transparent cost benefit arguments are then important.

H2: *Perceived financial cost has a significant impact on Fintech adoption in Islamic banking (such that higher perceived cost is associated with lower adoption likelihood).*

Social norms are significant factors in the acceptance of technology, especially in communities that have close-knit ties with one another (Linh, 2025; Mei, 2024). Social norm in Islamic banking services adoption is the perceived pressures or encouragement from important others (family, friends) to use or not use Fintech (Alhajjaj & Ahmad, 2022). A few studies have shown that if a person thinks that his/her social network is positive about a technology or they are using it, then their intention to adopt also increases (Aggarwal et al., 2023; Hoque et al., 2024). The study conducted by Yu (2012) in Taiwan showed that subjective norm was one of the important factors influencing mobile banking usage intention, indicating that endorsement by family members or friends may help to ease the mind of the user about using new financial services. The impact could be even greater in Islamic populations where financial decisions (e.g., not accepting interest) can have a moral or religious component that is discussed in a family. Having influential (and tech-savvy) personalities promoting Islamic Fintech Apps as “useful and Sharia compliant” will influence their followers. Rani and Kumar (2024) observed that peer influence was also a factor in the adoption of mobile financial services. Kleijnen et al. (2004) said the same. In other words, positive social norms, like observing a large number of others successfully using an Islamic banking app, can lead to a bandwagon effect that will prompt late adopters to take a ride on the app. Islamic banks can capitalize on this by emphasizing the increasing number of users or by engaging members of the community to market their Fintech products.

H3: *Social norms positively influence the decision to adopt Fintech services in Islamic banking (i.e., social encouragement and peer use increase one's adoption intention).*

Trust and security are key to financial services adoption. Perceived security is the user's perception that the use of the Fintech service will not expose him or her to any fraud or privacy breach or any other risk (Carranza et al., 2021; Lim et al., 2019). Perceived credibility is, however, the level of trust in an e-banking system in terms of its ability to handle transactions and protecting personal information securely (Jyoti et al., 2025; Mansour et al., 2016). In contrast to the early TAM models that did not consider security, subsequent studies have shown that security issues are frequently a major obstacle to the adoption of online banking and payment technologies (Liébana-Cabanillas et al., 2013; Mohamed & Abuhlfaia, 2024). Security is one of the factors that consumers consider before engaging in financial transactions online, as they are wary of the internet because of the risk of it being hacked or compromised by cybercrime (Jalal et al., 2011). People will not sign up for an Islamic banking app if they feel it is at risk or the credibility of the bank is questioned. In one study in Taiwan, for instance, over half of the respondents reported that they did not use mobile banking due to security concerns (Jeng & Tseng, 2018). Recently, significant security breaches have emerged that have further fueled these worries, including the recent examples of online banking account breaches where banking sessions were not appropriately secured. Conversely, robust security measures and establishing trustworthiness can lead to higher adoption rates. Luarn and Lin (2005) have reported that perceived credibility (security and privacy perceptions) positively impacts consumers' mobile banking intention. Likewise, Yuen et al. (2010) found that trust in the security of the technology makes them more likely to use it. Clients should have confidence in the safety of the platform as well as the bank's Shariah governance. Research has indicated that the sense of Shariah compliance may lead to customer trust and loyalty in Islamic finance (Baber, 2020). Therefore, there is a need for an integrated concept of credibility which would make users feel confident that Islamic Fintech products are indeed Islamic and safe (Razak et al., 2020). Prior literature confirms that perceived security and creditability risks have strong negative relationship with trust and

adoption intention (Alalwan et al., 2016; Ali et al., 2021; Yang et al., 2015), whereas *trust* positively influences the willingness to transact online (McNeish, 2015; Wang et al., 2015).

H4: *Perceived security (the absence of security concerns) is positively correlated with the intention to adopt Fintech services in Islamic banking.*

Self-expressiveness in technology adoption is its ability to enable the user to assert his/her identity, values or social status through the use of the product or service. Goh and Sun (2014) says that in fact, young consumers frequently make their consumption decisions as a way of expressing themselves. In the mobile services field, Nysveen and Pedersen (2005) developed an extended TAM that included perceived expressiveness which positively affected the intention to use new services. The thought is that if the technology fits with or improves a person's self-concept, it favours the adoption of the technology. In Islam banking, the application of Fintech could have an expressive element, such as retail customers' perception of branded modernity and technologism while simultaneously operating with a sound conscience. An Islamic banking app user may feel that it represents his identity as a "progressive and well-informed Muslim" for instance. This factor has received the least amount of research attention to date and initial results are promising. Finding persuasive mobile Islamic banking usage many times by younger and more innovative portions of the population, Goh and Sun (2014) concluded that it is perceived self-expressiveness that plays significant role in the adoption of the Islamic mobile banking. Even having the Islamic finance application that is certified by Muslim organisations for mobile use is a declaration of Islamic identity for some users. Additionally, solutions used in Fintech products meeting the Muslim way of living (e.g. mobile applications which facilitate charitable giving and/or pilgrimage savings) may be very powerful because the users would be able to perform religious duties more easily and this allows them to strengthen their positive image. Self-expressiveness may not be a motivator for everyone, but if they regard technology use as an extension of their personal brand or values then they can provide the additional impetus. In short, we believe that the likelihood of service adoption increases as the extent to which consumers can demonstrate their values through the Fintech service (e.g., visibly express values consistent with Islamic ethos; be innovative and trendy) increases.

H5: *Perceived self-expressiveness in using the Fintech service positively influences the intention to adopt Fintech in Islamic banking*

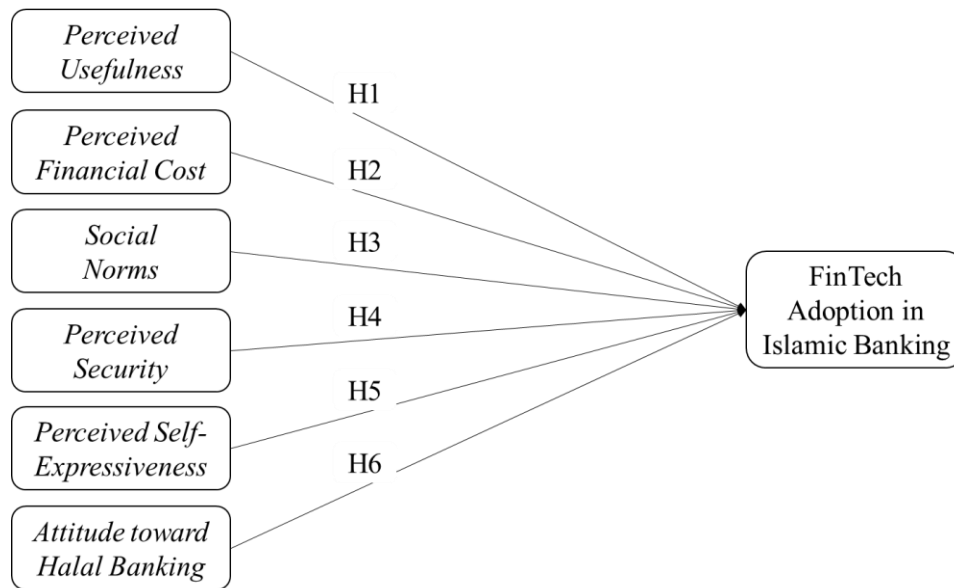
Attitude is an important construct that appears in many models in adoption, as the overall evaluation made by an individual towards a particular behavior/service. This paper is concerned mainly with attitude towards Islamic banking which is defined as a favourable disposition that a person experienced on Islamic financial institutions and Islamic financial products (Mohsin & Aftab, 2013; Utami & Slamet, 2021). This is rooted in religious values as well as in one's experience and/or perceptions of service quality. More than anything else, attitudes towards Islamic banking are unique from general religiosity. It is possible a person could be very religious and still have doubts about the authenticity or quality of Islamic banks which results in a less positive attitude toward using Islamic banks (Lada et al., 2009). The results from previous studies have revealed that attitude has a significant impact on intention to use Islamic financial services. Customers who had a positive attitude toward Islamic banks were found to express a high intention of using Islamic banking services (Echchabi et al., 2015; Echchabi & Azouzi, 2017). Likewise, Bananuka et al. (2019, 2020) also found that positive attitude towards Islamic banking (underpinned by the benefits and ethics of Islamic banking) positively influenced consumer intention to buy Islamic banking products among non-Muslim consumers. Review of the existing research on Islamic finance adoption suggests that attitude plays an important mediating role between beliefs (such as compliance and convenience) and patronage of Islamic banks, which is found in various studies through the use of meta-analyses. There are some reasons why this attitude is developed. The religious aspect is extremely important, the financing of the bank is actually in accordance with the Islamic principles (no riba), the realization of a share and there is fairness in it, and the investments are ethical. Functional attributes such as price, service efficiency, convenience and brand reputation are also taken into account by consumers on the practical side. The study by Dusuki and Abdullah (2007) revealed that adherence to the principles

of Shariah is the major consideration in attracting customers to the Islamic banking institutions while customers are also consider competitive pricing and offer. Basically positive attitude is created when customers find that Islamic banks offer the possibility to obtain the best possible of both worlds, that is, Islamic banking as a religion-compliant institution on a financial value basis. Based on that mindset, customers are more willing to take Islam bank's new offerings such as Fintech services. Indeed, Maryam et al. (2022) and Weill et al. (2021) reported that attitude is one of the best predictors of intention to use Islamic banking or Islamic banking related products in their samples. Therefore, it is expected that those with the positive attitude towards Islamic banking will be more receptive to its Fintech innovations. This effect could also moderate other effects, such as the satisfaction gained by effective Fintech services also helping to change attitudes for the better and thereby setting up a virtuous Fintech adoption cycle (Al-Habashneh et al., 2025).

H6: *A more positive attitude toward Halal (Islamic) banking positively influences an individual's intention to use Islamic banking Fintech services.*

Based on aforementioned discussion, this study proposed following framework as presented in Figure-1

Figure 1: Study framework



3. METHODOLOGY

This study adopted a quantitative, cross-sectional survey design to examine the determinants of Islamic Fintech adoption among Pakistani consumers, facilitating hypothesis testing, allows for generalization of findings, capturing consumer perceptions at a single point in time and enabling the use of statistical models to uncover the relationships among behavioral constructs (Creswell, 2014). The target population consisted of consumers who both own a mobile device and hold an account with an Islamic financial institution and respondents were approached using convenience sampling technique (Bell et al., 2018). The questionnaire was sent to the account holders of the Islamic financial institutions who agreed to participate voluntarily, both physically (at the branches) and by using the online forms (Islamic banking groups).

A structured, self-administered questionnaire was used to gather data. The instrument consisted of two parts: (1) demographic and background questions and (2) items measuring the constructs of the study. All items were assessed using a five-point Likert scale ranging from “1 = strongly disagree” to “5 = strongly

agree.” Items for the measures were adapted from validated instruments to achieve content validity. For example, the attitude towards Islamic banking was measured with the scales developed by Jaffar and Musa (2014) and the perceived financial cost scale was adapted from Goh and Sun (2014). The social norms, perceived usefulness, self-expressiveness and security concerns were measured using the scales developed in previous studies on adoption (Alsamydai, 2014; Mohamed, 2013; Sain et al., 2016; Samsudeen et al., 2025). Green (1991)’s rule of thumb ($N \geq 50 + 8m$) is used to estimate minimum sample size to perform multiple regression analysis with seven predictors. Based on this criteria, a sample of 98 is sufficient to estimate multivariate regression, however, the data were collected from 300 respondents and excessively large samples (i.e., 400 & above) may inflate model fit statistics, complicating interpretability (Hair et al., 2007). Therefore, 300 respondents were considered to be an optimum sample size both for statistical sufficiency and practicality.

Participation was voluntary, and respondents were informed about the study purpose before completing the questionnaire. Anonymity and confidentiality were assured, and responses were used only for academic analysis. No personally identifiable information was collected, and participants could withdraw at any stage without penalty.

4. RESULTS AND DISCUSSION

The demographic profile of the respondents presented in Table 1 provides important context for interpreting patterns of Islamic Fintech adoption in Pakistan. The study surveyed 300 participants, of whom a clear majority (75%) were male and 25% were female, reflecting a gender imbalance commonly observed in financial technology studies where men are often more active users of digital financial services (Din et al., 2021). Age distribution revealed that younger age group (18-25 years) has the highest share of 43% indicating that younger population is more likely to accept innovative banking services because of their higher level of digital literacy and technological adaptability (Afshan & Sharif, 2016). The distribution of occupations showed that 31.1% of the respondents were students, 27.5% were working in the private sector, 18% were working in the civil service, 15.7% were freelancers, and 7.5% were entrepreneurs. The high representation of students and private sector employees indicates that the adoption of Fintech is closely related to the younger and more tech-savvy population, which are looking for convenient and accessible financial products and services that are Sharia-compliant (Yu, 2012).

Table 1: *Descriptive Statistics*

	Demographic	<i>f</i>	%
Gender	Male	270	75%
	Female	90	25%
Age	18-25	155	43%
	26-30	68	19%
	31-35	86	24%
	36-40	50	14%
Religion	Muslims	349	97%
	Non-Muslims	11	3%
Occupation	Student	112	31%
	Enterprises	29	8%
	Freelancer	58	16%
	Civil servant	65	18%
	Private job	101	28%
Educational Level	Matric	47	13%
	Intermediate	86	24%
	Undergrad	162	45%
	Postgrad	61	17%

The correlation of all measured variables is shown in Table 2. The correlation coefficients were between 0.223 and 0.675, all of which were statistically significant.

Table 2: Correlational Matrix

Variable	1	2	3	4	5	6	7
Fintech Adoption	1						
Attitude Toward Halal Banking	0.371**	1					
Perceived Financial Cost	0.632*	0.468*	1				
Social Norms	0.635*	0.373**	0.577*	1			
Usefulness	0.675**	0.360**	0.565**	0.576**	1		
Perceived Self Expressiveness	0.401**	0.223*	0.415**	0.354***	0.462**	1	
Security Concern	0.560*	0.302**	0.462**	0.500**	0.534*	0.510**	1

Note: *, **, and *** represents significance at 10%, 5%, and 1% respectively

The instrument's reliability and validity is assessed (see Table 3). The internal consistency of all variables was acceptable with Cronbach's Alpha values above the 0.7 threshold, likewise, AVE and CR values are greater than the threshold of 0.5 and 0.7 respectively, suggesting instrument's validity (Hair et al., 2014).

Table 3: Reliability and Validity

Variable	α	CR	AVE
Fintech Adoption	.728	.860	.605
Attitude Toward Halal Banking	.774	.856	.597
Perceived Financial Cost	.818	.924	.577
Social Norms	.713	.915	.573
Usefulness	.763	.924	.603
Perceived Self Expressiveness	.733	.931	.601
Security Concern	.781	.836	.630

The results of the regression analysis are shown in Table 4. The model obtained R^2 value of 0.58, which means that the independent variables attitude toward halal banking, perceived financial cost, social norm, perceived self-expressiveness, usefulness, and security concern explained 58% of the variance in the intention to adopt Fintech in Islamic banks. The ANOVA test also validated the overall model significance ($p < 0.05$), which further validated the explanatory power of the independent variables in predicting the dependent variable.

Table 4: Multiple Regression Analysis Predicting IAFIB

Predictor	Standard Error	Beta	t-value	p-value	Hypothesis
Constant	.187	—	-0.39	.698	
Attitude Toward Halal Banking	.038	-.014	-0.33	.740	Not Accepted
Perceived Financial Cost	.053	.243	4.85	< .001	Accepted
Social Norms	.047	.203	4.10	< .001	Accepted
Usefulness	.062	.288	5.58	< .001	Accepted
Perceived Self Expressiveness	.045	-.034	-0.76	.450	Not Accepted
Perceived Security	.051	.173	3.58	< .001	Accepted
$F(6, 293)$	67.93		$p < .001$		
R^2				.58	

This study's aim is to identify key determinants of Islamic Fintech adoption in Pakistan. Results reported in Table 5 revealed that usefulness ($\beta = 0.288$, $p < 0.001$), perceived financial cost ($\beta = 0.243$, $p < 0.001$), social norms ($\beta = 0.203$, $p < 0.001$), and perceived security ($\beta = 0.173$, $p < 0.001$) are significant determinants of Islamic Fintech adoption in Pakistan. Whereas perceived self-expressiveness ($\beta = -0.034$,

$p > 0.05$) and attitude toward Halal banking ($\beta = -0.014$, $p > 0.05$) showed statistically insignificant effects on Islamic Fintech adoption.

Notably, usefulness and perceived financial cost emerged as the most influential predictors, suggesting that individuals consider both the benefits and financial implications of adopting Islamic Fintech banking. Although perceived financial cost is often expected to discourage adoption, the positive coefficient in this study may indicate that respondents are willing to bear certain costs when Islamic Fintech services are perceived as useful, convenient, reliable, and Shariah-compliant. This finding is in line with the literature (Goh & Sun, 2014; Islam, 2022; Yu, 2012), which suggests that Fintech adoption increases when users perceive the service as beneficial and worth the associated cost. Based on these results, Islamic Fintech service providers need to improve the usefulness of their services, while keeping service charges reasonable and clearly justified.

Similarly, results also supported that social norms had a significant positive effect on Islamic Fintech adoption. This is consistent with the Theory of Planned Behavior and previous research (Ajzen, 1991; Amin, 2007; Hoque et al., 2024). These studies also revealed that people are more inclined to engage in practices that their friends, family, and community members engage in. Hence, the likelihood of other people adopting Islamic Fintech could increase as more people in society do so. In other words, the result indicates that subjective norms can become a powerful predictor of intention especially in a collectivist culture like Pakistan. Therefore, the social aspect should be used to encourage the adoption of Islamic Fintech by word of mouth, testimonials, and community-based awareness campaigns, which should be used by the policy makers and marketers.

Perceived security ($\beta = 0.173$, $p < 0.001$) was also found to be a significant predictor of Islamic Fintech adoption, besides usefulness, financial cost and social norms. The positive and significant effect suggests that users are more inclined to accept Islamic Fintech if they believe that the system is secure in terms of data privacy, safe transactions, and Shariah compliant operations. This result aligns with the literature that has found trust and perceived security as key determinants of Fintech adoption (Alhajjaj & Ahmad, 2022; Mahmud et al., 2023). People feel more comfortable using Islamic Fintech services when they think that the services are safe, reliable and compliant with Shariah. In practical terms, Islamic banks need to improve security protocols and make them known to the public by providing certifications, disclosures, and known standards. These practices can help increase user confidence and willingness to adopt.

In this study, attitude toward Halal banking ($\beta = -0.014$, $p > 0.05$) had an insignificant effect on the adoption of Islamic Fintech, unlike the model proposed by Ajzen (1991) which considers attitude as one of the main antecedents of intention. This may be due to the fact that the attitudes of the respondents towards Islamic banking are generally positive or neutral, and there is not much variance to be accounted for by attitude after the factors of usefulness, cost, social norms and security are taken into consideration. This minor relationship could also indicate that factors other than personal attitude, such as usefulness, perceived cost, social influence, and security, play a more important role than personal attitude. Therefore, having a positive attitude towards Halal banking is not enough to ensure the adoption of Islamic Fintech, unless it is complemented with practical and technological advantages.

Likewise, the perceived self-expressiveness ($\beta = -0.034$, $p > 0.05$) was not significant in predicting the adoption of Islamic Fintech. This implies that users are not necessarily using Islamic Fintech to assert their identity, status, or personal image. Rather, adoption seems to be more motivated by functional and practical reasons, such as usefulness, cost, social norms, and security. Thus, in the case of Pakistan, the adoption of Islamic Fintech appears to be more driven by the value of the services offered and trust issues than by symbolic or self-expressive motives.

5. CONCLUSION

The present study attempts to identify the key factors that determine Islamic banking Fintech adoption based on a combined empirical model incorporating technological, economic, social, and trust-related

factors within a Pakistani context. The results show that Islamic Fintech adoption is more pragmatic than purely attitudinal or identity-based. In detail, perceived usefulness, perceived financial cost, social norms, and security concerns are significant predictors that jointly explain a quite high percentage of variance in adoption intention.

The strong presence of perceived usefulness underlines the fact that customers have an incentive to use Islamic Fintech services when these technologies provide obvious functional benefits, such as convenience, efficiency, and improved financial management. Similarly, the prominence of perceived financial cost suggests that users are sensitive to affordability and value-for-money considerations, especially in emerging economies, where price consciousness is high. These findings imply that Islamic banks should focus on tangible economic and operational advantages when digital services are promoted.

Social norms also play a meaningful role, reflecting the collectivist characteristics of Pakistani society, where financial decisions are frequently influenced by peer influence, family endorsement, and community practices. The positive influence of security concerns further confirms that trust, data protection, and system reliability are indeed fundamental prerequisites for adoption in digital financial services, especially within the context of Shariah-sensitive settings where credibility and ethical assurance mean everything.

In contrast, the insignificance of attitude toward halal banking and perceived self-expressiveness suggests that favorable perceptions of Islamic banking alone are not enough to determine Fintech adoption. Once customers accept Islamic banks as legitimate, their adoption decisions are guided more by considerations around performance, cost, and risk than by symbolic or identity-related motives. This finding questions traditional assumptions in the adoption models and indicates a shift toward rational, utility-driven decision-making among Islamic banking customers. Overall, this study furthers theory by extending Fintech adoption research to Islamic finance within an integrated framework and informs practice regarding initiatives through which banks and regulators aim to drive digital inclusion while securing trust and Shariah compliance.

The findings offer useful guidance for Islamic banks, policymakers, and Fintech service providers. Islamic banks should improve the usefulness, accessibility, and security of their digital services to encourage adoption. Policymakers should develop clear regulatory and Shariah-compliance guidelines to strengthen user confidence in Islamic Fintech platforms. Fintech service providers should focus on user-friendly applications, transparent pricing, secure transactions, and awareness campaigns that use social influence, community trust, and customer testimonials.

This study has some limitations. First, the data were collected through convenience sampling, which may limit generalizability. Future studies should use probability sampling and larger samples from different regions of Pakistan. Second, the study used a cross-sectional design; future research may apply longitudinal methods to examine adoption behaviour over time. Third, the study focused on selected determinants only. Future studies may include additional factors such as trust, religiosity, digital literacy, Shariah awareness, and actual Fintech usage behaviour.

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Data Availability

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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