Indus Journal of Social Sciences

Online ISSN: 2960-219X
Print ISSN: 2960-2203
Volume 4, Number 1, 2026, Pages 86 – 106
Journal Home Page
https://induspublishers.com/IJSS/about

Comparative Analysis of Users and Non-Users on Digital Finance: A Study of Perceived Risks and Benefits

Narender Kumar[1] & Dr. Samina Riaz[2]

[1]*Ph.D scholar at Bahria University, Email: Narenpinjani@gmail.com*
[2]*Senior Professor at Bahria University, Karachi, Email: Saminariaz.bukc@bahria.edu.pk*

ARTICLE INFO

Article History:

Received:	*October*	*19, 2025*
Revised:	*November*	*10, 2025*
Accepted:	*December*	*23, 2025*
Available Online:	*January*	*02, 2026*

Keywords:

Digital finance, perceived risk, perceived benefit, user–non-user comparison, Pakistan, adoption intention.

Corresponding Author:
Narender Kumar
Email:
Narenpinjani@gmail.com

ABSTRACT

Purpose: *This study examines the influence of perceived risks and perceived benefits on attitudes towards digital finance and their subsequent impact on adoption intentions in Pakistan, comparing users and non-users.*

Design/methodology/approach: *A cross-sectional survey was conducted with 382 respondents split evenly between users and non-users of digital finance. Data were analyzed using structural equation modeling (SEM) to test hypothesized relationships derived from the perceived risk–benefit framework, incorporating five risk dimensions (security, financial, performance, psychological, and legal) and four benefit dimensions (economic benefit, convenience, seamless transaction, and perceived enjoyment). Multi-group analysis was used to assess differences between users and non-users.*

Findings: *Results reveal distinct patterns between users and non-users. For users, economic benefit, convenience, seamless transactions, and perceived enjoyment significantly enhanced attitudes, while security, financial, and psychological risks reduced them. For non-users, all five risk factors (security, financial, performance, psychological, and legal) negatively affected attitudes, whereas only economic benefit and convenience showed positive effects. Attitude strongly predicted adoption intention for both groups.*

Originality/value: *This study addresses contextual and empirical gaps by simultaneously examining an extended set of risk and benefit factors, incorporating psychological and legal risks, and integrating perceived enjoyment variables seldom studied in developing economies. By comparing users and non-users, the study provides actionable insights for policymakers, financial institutions, and technology developers aiming to enhance digital finance adoption in emerging markets.*

Introduction

The way people engage with financial services has changed due to the quick development of financial technology, or digital finance, which has replaced conventional banking with more

practical and technologically advanced options. With its ability to provide users with greater accessibility, cost savings, and seamless transaction processes, digital finance, which includes e-wallets, internet banking, mobile banking, and other digital finance-based platforms, has grown to be an essential component of contemporary economic systems(Schwirblat et al., 2022). This shift was sped up by the COVID-19 pandemic, as consumers began to handle their financial transactions more and more through digital channels. Digital financial services adoption rates increased from 16% in 2016 to 64% in 2019 (Global Findex, 2021). However, many consumers, especially in developing economies, remain hesitant to adopt digital finance due to a number of perceived risks, despite the technological advancements and potential benefits.

Pakistan makes a strong case for researching this disparity in adoption. There is a sizable potential market for digital finance given the country's population of over 240 million and its quickly increasing mobile phone penetration rate. According to reports, by 2025, the industry could boost GDP by 7% and contribute USD 36 billion to the economy(Iqbal et al., 2025). However, adoption rates are still low; in 2021, only 18% of adults reported using digital payments, which is the lowest percentage in South Asia (Global Findex, 2021). Obstacles include low digital literacy, legal uncertainty, entrenched cash-based transaction habits, and mistrust of digital systems. Furthermore, the informal economy accounts for up to 91% of GDP (Ozili, 2023). These difficulties highlight the importance of comprehending how consumer attitudes toward digital finance are influenced by perceived risks and benefits, and how these attitudes affect adoption or intention to continue using the technology.

In financial contexts, the perceived risk-benefit framework has been widely used to explain technology adoption behavior. While perceived benefits like financial savings, ease of use, seamless transactions, and enjoyment positively shape acceptance, perceived risks like security, financial, performance, psychological, and legal issues have been demonstrated to negatively affect user attitudes (Amber et al., 2025). Despite this, most of the research that has already been done has only looked at a small number of risk and benefit factors, frequently leaving out important aspects like psychological risk, legal risk, and perceived enjoyment. The determinants of attitude between digital finance users and non-users have also rarely been compared in a single study, especially in emerging markets where contextual factors like infrastructure constraints, and trust can vary significantly.

Although perceived risks and benefits in the adoption of digital finance have been examined in previous research, there are still gaps in the empirical coverage and context. While perceived benefits have frequently been restricted to economic benefits, convenience, seamless transaction and perceived enjoyment, previous studies have only partially included aspects of perceived risk, concentrating on combinations of security, financial, performance, or operational risks (Prakhar et al., 2025). In a single investigation within the particular context of Pakistan, this study provides a thorough model that incorporates the maximum dimensions of perceived risk (security, financial, performance, psychological, and legal) and perceived benefit (economic, convenience, seamless transaction, and enjoyment). Although legal and psychological risk have been found to be significant determinants of technology adoption (Asad & Aijaz, 2025), their impact on attitudes regarding digital finance has not been examined empirically. Similarly, little attention has been paid to how attitudes toward digital finance are influenced by perceived enjoyment. Filling in these gaps improved theoretical knowledge and offer useful information to financial institutions, policymakers, and digital finance developers looking to increase adoption in developing nations.

Research Objectives

- To investigate the impact of the dimensions of perceived risks on attitude towards digital finance.
- To analyze the impact of dimensions of perceived benefits on attitude towards digital finance.
- To examine the impact of attitude towards digital finance on intention to adopt digital finance.
- To assess the differences in perception of digital finance between users and non-users.

Literature Review

Davis (1989) designed the technology acceptance model, which is the extension of the theory of reasoned action (TRA) for IT users' acceptance modelling. It is a more distinct theory to understand the adoption behaviour from the viewpoint of information technology and suggests a clear component of attitudes towards using IT. Researchers asserted that technology usage is influenced by behavioral intentions to use which in turn are determined by users' attitudes toward adopting technology (Meng et al., 2022). In this regard, TAM suggests that perceived ease of use and perceived usefulness are the determinants of attitudes toward using a given system. Researchers had applied TAM in a number of studies. TAM suggested that the impression of the management of the online business website impacts the buying intention and that the perceived convenience is impacted for the perceived usefulness of the company website on the Internet and the social proximity to the website (Chan et al., 2022). Therefore, researcher adopted TAM to examine the adoption intention of online banking on the basis of perceived benefits and perceived risk (Fraj-Andrés et al., 2023). TAM is a strong predictive model in adoption of technology and information system (Mukherjee et al., 2023). Thus, this theory model is appropriately designed for the specific nature of digital finance which can recognize (Fauzi et al., 2023; Mohammed et al., 2022) and foresee adoption of a new system or an innovation

Perceived *Risk-Benefit Framework*

Adoption of digital finance relies upon the risk-benefit framework. This theoretical model declares that individuals will use new technology if the advantage of using such technology is more than its risks. Digital finance enhances access to financial information, transaction visibility, and expense. Opposing, cyber-attacks, identity theft, and fraud are risks of this situation. TPB and risk-benefit framework highly affect digital finance adoption (Ariff et al., 2014). The risk-benefit framework assists in determining the digital financial services' advantages and disadvantages. TPB emphasizes a model of grasping the factors affecting a person's predisposition to embrace given behaviors. These models describe the characteristics influencing digital finance acceptance (Kwaku Nimsaah et al., 2025). Risk and reward are related and reinforcing. The research indicated that benefits were appraised more when risk decreased and vice versa. The study increased both concepts. Researchers claimed that when a client is making a purchase, he or she is blind and uncertain (Jungo et al., 2023). This also questions the way people perceive their risks (Beard & Dess, 1981).

Perceived Risks

Bauer (1967) characterized perceived risk as a component of uncertainty and adverse outcomes. Cunningham (1967) categorized perceived risk into five dimensions: financial risk, performance risk, psychological risk, security risk, and legal risk. Similarly, significant obstacles to the adoption of digital money have been identified as perceived risk considerations, including security hazards,

privacy threats, and fraud (Li et al., 2023). In prior studies, perceived risk was analyzed as a separate facet of perceived hazards. Likewise, several studies investigated perceived risk concerns, including financial risk, privacy risk, regulatory risk, operational hazards, and cybersecurity risk (Mohanty et al., 2025).

Security Risk

Security risk is shown to be a breach of customers' confidence due to hacking and the theft of their personal information (Palkar & Figueiredo, 2025). Security risks include potential threats from external malevolent entities, such as hackers, cyber terrorists, or insiders, who exploit vulnerabilities to achieve unauthorized access, information theft, or service disruption (Motwani et al., 2025). Researchers investigated users' intentions to utilize online banking, finding that perceived security risks adversely affected attitudes and intentions toward online banking adoption in Taiwan (Lee & Kim, 2020). Moreover, the research revealed that security risk was the primary factor influencing online banking uptake. Additionally, security risk was examined as a variable of perceived risk concerning continued intention towards financial technology. The results indicated that security risk was a crucial predictor of perceived risk, which in turn impacted the ongoing intention of digital finance in Korea (Trinh et al., 2020). In a study, the authors examined security risk as a determinant of perceived risk in Pakistan, discovering a positive correlation between security risk and perceived risk, while perceived risk exhibited a negative correlation with trust concerning the intention to adopt Islamic financial technology (Javaid et al., 2025). Consequently, the research posited the following hypothesis:

H1A: Security risk negatively influences attitude towards digital finance for non-users.

H1B: Security risk negatively influences attitude towards digital finance for users.

Financial Risk

Financial risk refers to the possible loss of money that might happen because of using Digital Finance or Digital Finance Solutions (Gupta et al., 2023). In the realm of digital finance, the onset of financial risk arises from technological malfunctions, cyber assaults, or illicit access to financial data (Alnemer, 2022; Voronenko, 2018). Financial risk had the least significant influence among the four factors of perceived risk in Taiwan (Ozili, 2022). Additionally, researchers identified financial risk as a determinant of perceived risk and analyzed its effects on digital finance in India. The findings indicated that financial risk was an insignificant factor in perceived risk, which influenced the desire to embrace digital finance (Chinoda & Kapingura, 2023). In Pakistan, researchers assessed financial risk as a component of perceived risk, demonstrating a positive correlation between financial risk and perceived risk, while indicating a negative correlation between perceived risk and trust regarding the intention to adopt Islamic financial technology (Ali et al., 2025). Consequently, the investigation established the following hypothesis

H2A: Financial risk negatively influences attitude towards digital finance for non-users.

H2B: Financial risk negatively influences attitude towards digital finance for users.

Performance Risk

Performance risk can be defined as malfunction of servers, authentication procedure and networking errors resulting in disruption of the transaction or initiating financial losses (Srairi, 2025). The possibility of a product to malfunction, perform inadequately, not achieve planned objectives, and thus not provide the expected outcomes. This relates to losses suffered financially due to faults or mistakes in internet banking systems. Clients often feel anxious about the chance

of a server crash or failure of internet connection while undertaking online transactions since such incidents have the potential to result in unanticipated financial losses (James et al., 2025). In Pakistan, scholars studied the operational risk(Performance risk) as part of perceived risk and concluded that operational risk was positively correlated with perceived risk and perceived risk was inversely correlated with trust with regard to intention to Islamic financial technology adoption (Ali et al., 2025).Accordingly, the study formulated the following hypothesis:

H3A: Performance negatively influences attitude towards digital finance for non users.

H3B: Performance negatively influences attitude towards digital finance for users.

Psychological Risk

Psychological risk is defined as potential damage to self-esteem or peace of mind owing to anxiety, frustration or stress owing to usage of the digital finance service (Schwirblat et al., 2022). Psychological risk within the context of finch defines the potential negative psychological impact or concerns that individuals experience when utilizing financial technology services. It encompasses whatever can affect users' attitudes, behaviors, and decisions regarding the adoption and utilization of digital finance on a cognitive and emotional basis. Psychological risk was investigated by other scholars as well along with other risk dimensions in Egypt and it was revealed that psychological risk had the negative effect on digital finance use (Noureldin & Moawad, 2023). Therefore, the study formulated the following hypothesis:

H4A: Psychological risk negatively influences attitude towards digital finance for non-users.

H4B: Psychological risk negatively influences attitude towards digital finance for users.

Legal Risk

Legal risk in financial technology is defined as the absence of trust and fear by the users due to unclear legal status and the absence of regulations caused by the utilization of Digital Finance (Ozili, 2023). It includes the threat of laws, regulations, contractual liabilities, and possible legal issues. Past researcher asserted that legal risk is key driver of in driving financial technology. Researcher examined the legal risk as parameter of perceived risk with respect to sustained intention towards financial technology and findings showed that the legal risk was the overriding parameter in Korea (Amber et al., 2025). In Pakistan, researchers tested the legal risk as part of perceived risk and concluded that legal risk was positively related to perceived risk and perceived risk was negatively related to trust in the case of intention towards Islamic financial technology adoption (Channa et al., 2025). Accordingly the study formulated the following hypothesis:

H5A: Legal risk negatively influences attitude towards digital finance for non users.

H5B: Legal risk negatively influences attitude towards digital finance for users.

Perceived Benefits

Conversely, it has been established that perceived benefits such as convenience, accessibility, and cost-effectiveness have a high level of influence over an individual's intention to use a given product or service (Prakhar et al., 2025). Based on the study on digital finance adoption in China (Garg, 2019), it was found that the convenience factor was a major driver for users' adoption. Users cited specifically the convenience of paying at any place and time as a major benefit. This study incorporated economic benefits, convenience, seamless transaction, and perceived enjoyment

Economic Benefits

Economic benefits refer to monetary savings and monetary returns resulting from the use of financial technology (Ariff et al., 2014). Economic benefits are the monetary benefits yielded from the use of digital finance, including lower costs of transactions, improved access to credit and investment opportunities, and increased financial access. The benefits have the potential to greatly assist in the perceived usefulness of digital finance, thus having a massive impact on the willingness of people to use digital finance. Findings from research show that there is a positive relationship between the perception of economic benefits and the willingness to use digital finance. In another research, scholars investigated the economic benefit as part of perceived benefit in Pakistan and discovered that economic benefits was positively correlated with perceived benefit with positive effect on economic benefit. Additionally, they also discovered that intention to Islamic financial technology adoption is positively influenced by economic benefit (Noor & Mirza, 2025) Therefore the study formulated the following hypothesis:

H6A: Economic benefit positively affects attitude towards digital finance for non users.

H6B: Economic benefit positively affects attitude towards digital finance for users.

Convenience

Researchers had conceptualized convenience as available and adaptable within the context of time and place (Kwaku Nimsaah et al., 2025). The perceived advantage of embracing digital finance is the convenience benefit as a critical factor. Electronic finance provides users with the convenience of access to financial services at their own time, wherever they are, without having to physically visit branches or deal with staff. Researchers analyzed the convenience as part of perceived benefit in Pakistan and discovered that convenience was positively related to perceived benefit with positive influence on convenience. In addition, they also discovered that perceived trust positively influences intention to adopt Islamic financial technology (Ali et al., 2021). In South Korea, researchers examined the effect of perceived convenience on consumer intention to adopt internet banking and outcome found that convenience had a direct positive effect on customers' intention to adopt internet banking (Lee & Kim 2020). Thus the study formulated the following hypothesis:

H7A: Convenience positively affects attitude towards digital finance for non users.

H7B: Convenience positively affects attitude towards digital finance for users.

Seamless transaction

Researchers defined seamless transactions as low-cost and fast financial transactions (Jungo et al., 2023). Digital finance brings down physical paperwork needs to a very low level. Rather than manually filling forms and signing them, users can make transactions online, saving time, minimizing errors, and reducing administrative hassles (Beard & Dess, 1981). Earlier researcher argued that seamless transaction played crucial role in digital finance adoption. Seamless transactions are able to gain competitive edge over traditional financial institutions and prompt financial technology firms to develop innovative products and services to compete in the financial markets (Li et al., 2023). In one study researchers tested seamless transaction as part of perceived benefit in Pakistan and concluded that seamless transaction was seen as having a positive relationship with perceived benefit having a positive influence on seamless transaction. Additionally, they concluded that intention to Islamic financial technology adoption is also positively influenced by seamless transaction (Hidayat-ur-Rehman et al., 2025) Therefore the study formulated the following hypothesis:

H8A: Seamless transaction positively affects attitude towards digital finance for non-users.

H8B: Seamless transaction positively affects attitude towards digital finance for users.

Perceived Enjoyment

The number of authors discovered that behavioral intention is affected by perceived enjoyment. Researcher discovered that Perceived enjoyment have a significant impact on behavior intention. (Mohanty et al., 2025). Perceived enjoyment is depicted as the degree to which the use of a specific product or service is seen to be enjoyable in its own right. It was researched earlier that perceived enjoyment is significant determinant in technology adoption according to researchers. Perceived enjoyment influenced acceptance of information technology among individuals (Palkar & Figueiredo, 2025). Their research in Thailand, discovered that if technology is found to be fun and pleasant, users will adopt it by themselves. A study regarding an adoption of digital finance service in Malaysia realized that intention towards financial technology adoption was significantly affected by perceived enjoyment (Motwani et al., 2025). Hence the study developed the following hypothesis:

H9A: Perceived enjoyment positively affects attitude towards digital finance for non-users.

H9B: Perceived enjoyment positively affects attitude towards digital finance for users.

Attitude towards Digital Finance.

Attitude is described as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Lee & Kim, 2020). With technological advancements constantly revolutionizing the finance landscape, attitude towards digital finance has increasingly become critical as a field of research. A person's opinions, conceptions, and sentiments towards using digital finance are termed as their attitude towards digital finance. Many studies have indicated various variables that influence individuals' perceptions of digital Finance. In the opinion of Khan et al. (2018), perceptions of digital financial services are highly dependent upon how useful, easy, and safe they are perceived to be. Favorable financial experiences, such as easy and quick transactions, have a tendency to encourage more favorable perceptions. In particular, customers who expressed a positive attitude towards online banking were more likely to embrace this banking mode (Trinh et al., 2020). Thus, when customers enjoyed a positive personal experience with Digital finance products and services, they were more likely to utilize them again in the future. (Gupta et al., 2023). Hence, attitude towards digital finance would decide intention to adopt digital finance.

Intention to Adopt Digital Finance

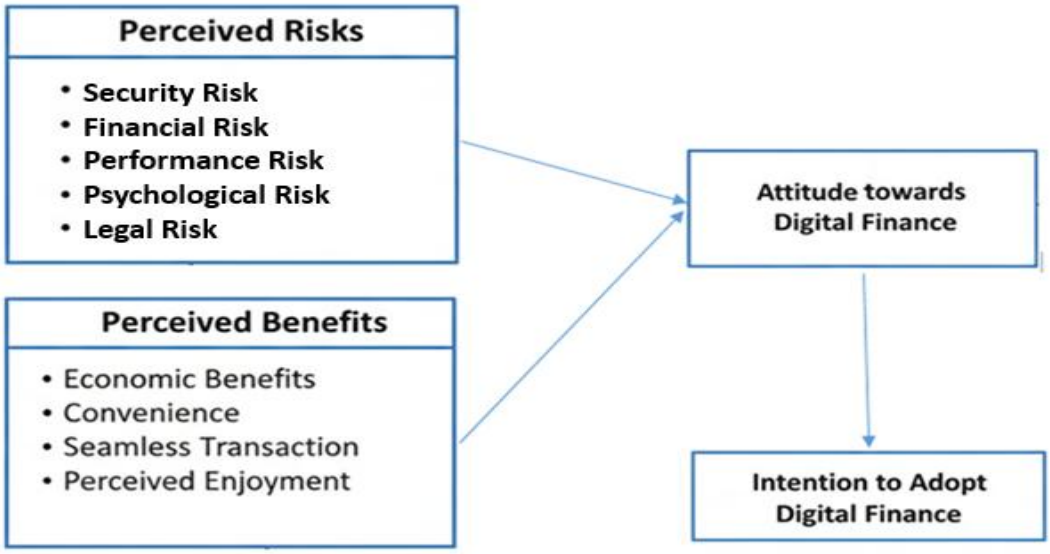
The concept of an individual's inclination to adopt digital finance may be characterized as their inherent desire and deliberate purpose to engage with digital technology within the realm of financial services. The comprehension of adoption intention has significant importance as it often serves as a reliable indicator of subsequent adoption behavior. Individuals are more inclined to express an intention to use digital finance if they perceive it to be beneficial and positive.

The ongoing digitalization of financial services has sparked significant interest in the adoption of digital finance within the financial industry. This literature review provides a concise and comprehensive overview of the key findings and insights derived from many studies on the inclination towards using digital banking services. Extensive research has been conducted on the adoption of digital banking, using the Technology Acceptance Model (TAM) as a theoretical framework. The study conducted by Davis (1989) suggests that individuals' intentions to adopt

technology are significantly impacted by their evaluations of the technology's usefulness and usability. Multiple studies, such as (Alnemer, 2022; Voronenko, 2018) that have used the Technology Acceptance Model (TAM) in the domain of digital finance have shown a noteworthy and positive association between the perceived utility of digital financial services and the desire to utilize them. Hence the study developed the following hypothesis:

H10A: Attitude towards digital finance has a positive impact on intention to adopt digital finance and continue using digital finance for non-users.

H10B: Attitude towards digital finance has a positive impact on intention to adopt digital finance and continue using digital finance for users.



Research Methodology

Research Design

Research design emphasizes overall plan of how the researcher conducted his research by responding to the primary research questions (Saunders et al., 2009). This research employed a quantitative research design to evaluate the contribution of perceived risks and benefits towards the adoption of digital finance. This research formulates an explanatory research approach to illuminate relationships between the central research constructs

Mono method and multiple methods

Mono method involves employing one data collection technique and equivalent single analysis techniques (quantitatively or qualitatively) to respond to research inquiries (Saunders et al., 2009). Multi-method, as opposed to this, says to 'those combinations where more than one data collection technique is employed with corresponding analysis technique but is limited within either quantitative or qualitative world view' (Keng-Soon et al., 2019; Vadithe et al., 2025). This research fits into quantitative methods.

Research Population and Sampling

The study population are the bank account holders who are both users and non-users of digital financial services. Convenience sampling was employed to gather the data since the population is unknown. A power analysis was utilized to determine the sample size to ensure that the study has

sufficient statistical power to detect significant effects. As per (Pei et al., 2015; Wang & Chen, 2023) if population is unknown 300 sample size will be enough. The study sample was enhanced to 400 to reduce the biasness and obtain the varied responses. 382 full responses from respondents of four provinces i.e. Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan comprised the study.

Research Instrument and Measurement

Conceptual framework of this research project comprises eleven variables. The endogenous and exogenous variables, were taken from existing literature. In order to address the study requirements, the items were adjusted. The structured questionnaire was developed with a five-point Likert scale, and answers were analyzed by Smart PLS. There are primarily two means of gaining information which are primary data and secondary data. The primary data was utilized in this study. Methods of data collection applied in previous research in this area were questionnaire surveys (Meng et al., 2022; Morimoto, 2025). Questionnaire was created on google form. This study employed a cross-sectional survey-based in collecting primary data from prospective sample subjects

Analysis of data Procedure

SPSS along with Smart-PLS was utilized which comprises Measurement Model and Structural equation model in PLS

Data Collection

No one method can be used to gather data for research. To obtain information, the survey method can be employed. This method uses a range of devices, such as a questionnaire and personal interview. The survey method can be employed to collect information from respondents on their opinions, actions, sentiments, and experiences concerning the variables under research and study topic. The survey utilizes a questionnaire, a method that involves questions with narrow topic coverage inquiring about the variables (Sarikhani & Ebrahimi, 2022). Consequently, a survey method was utilized and a self-administered questionnaire using a five-point Likert scale was utilized to gather data.

Data Analysis

Data Analysis of Non User

Table 1: Total Effects

	SR	FR	PR	PCR	LR	EB	C	ST	PE	ADF	IDF
SR										0.344	
FR										0.052	
PR										0.137	
PCR										0.042	
LR										-0.461	
EB										0.403	
C										-0.284	
ST										0.547	
PE										0.253	
ADF											0.854
IDF											

The Total Effects table in case of non-user shows how different factors affect non-users' attitudes and intentions to adopt digital finance, both directly and indirectly. These factors are strong positive predictors, as evidenced by the fact that security risk (SR) has the highest total effect (0.344) on attitude toward digital finance (ADF), followed by economic benefit (EB) at 0.403 and seamless transaction (ST) at 0.547. However, legal risk (LR) has a negative overall effect (-0.461) on ADF, indicating that it serves as a strong disincentive for non-users. The overall effects of psychological risk (PCR), perceived risk (PR), and financial risk (FR) are weaker or insignificant, suggesting that although risks are important, non-users' positive attitudes are more influenced by their perceptions of benefits like perceived enjoyment and seamless transaction.

Table 2: Correlations all latent constructs

	SR	**FR**	**PR**	**PCR**	**LR**	**EB**	**C**	**ST**	**PE**	**ADF**	**IDF**
SR	1.000	0.266	-0.293	-0.476	-0.066	0.406	0.351	0.314	0.398	0.302	0.267
FR	0.266	1.000	-0.111	-0.234	-0.156	0.095	0.044	0.097	0.057	0.128	0.109
PR	-0.293	-0.111	1.000	0.393	0.321	-0.080	-0.128	-0.071	-0.114	0.069	-0.059
PCR	-0.476	-0.234	0.393	1.000	0.237	-0.243	-0.145	-0.181	-0.235	-0.144	-0.193
LR	-0.066	-0.156	0.321	0.237	1.000	-0.299	-0.415	-0.318	-0.374	-0.262	-0.329
ST	0.314	0.097	-0.071	-0.181	-0.318	0.785	0.784	1.000	0.683	0.815	0.749
EB	0.406	0.095	-0.080	-0.243	-0.299	1.000	0.783	0.785	0.739	0.795	0.759
C	0.351	0.044	-0.128	-0.145	-0.415	0.783	1.000	0.784	0.759	0.649	0.648
PE	0.398	0.057	-0.114	-0.235	-0.374	0.739	0.759	0.683	1.000	0.703	0.731
ADF	0.302	0.128	0.069	-0.144	-0.262	0.795	0.649	0.815	0.703	1.000	0.854
IDF	0.267	0.109	-0.059	-0.193	-0.329	0.759	0.648	0.749	0.731	0.854	1.000

The results were extracted from data of non-users, the sADF's attitude and variables like intention to adopt (IDF = 0.854), seamless transaction (ST = 0.815), economic benefit (EB = 0.795), and convenience (C = 0.649) are significantly and strongly positively correlated, according to the correlation matrix. This suggests that the likelihood of forming a favorable attitude and intention toward using digital financial services rises in tandem with perceived convenience, perceived enjoyment, and seamless transaction. On the other hand, there are significant negative correlations between ADF and legal risk (LR = -0.646) and psychological risk (PCR = -0.468), indicating that these risk factors drive reluctance among non-users. The model's validity in identifying the primary motivators and obstacles to the adoption of digital finance is supported by the strength of these relationships.

Table 3: R Square

	R-square	**R-square adjusted**
ADF	0.782	0.754
IDF	0.729	0.726

The model's ability to explain the non-user group is shown by the R-square values. The attitude toward digital finance (ADF) R2 value is 0.782, meaning that the predictor variables account for 78.2% of the variance in attitude. In a similar vein, the intention to adopt digital finance (IDF) R2 value is 0.729, indicating that 72.9% of the variance in intention is explained. These high values indicate a good model fit and show that the chosen variables, including perceived risks and benefits, sufficiently explain non-users' attitudes and behavioral intentions regarding digital finance.

Table 4: Validity and Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
SR	0.744	0.641	0.812	0.600
FR	0.774	1.760	0.794	0.574
PR	0.627	0.597	0.758	0.525
PCR	0.848	0.966	0.904	0.759
LR	0.761	0.898	0.836	0.583
EB	0.889	0.894	0.931	0.819
C	0.815	0.854	0.889	0.729
ST	0.843	0.850	0.906	0.762
PE	0.833	0.837	0.923	0.857
ADF	0.890	0.894	0.924	0.753
IDF	0.889	0.897	0.931	0.819

The constructs' dependability and internal consistency of non-users are validated by the convergent validity table. Every construct satisfies the suggested thresholds with AVE values above 0.50, Cronbach's alpha above 0.70, and Composite Reliability (CR) above 0.80. For instance, the construct of seamless transaction (ST) has a Cronbach's alpha of 0.865, AVE of 0.688, and CR of 0.899. This ensures that the measurement model is reliable since the items in each construct measure the same underlying concept consistently. As a result, for the non-user sample, the scale items used to gauge opinions about digital finance are statistically sound.

Table 5: HTMT

	ADF	C	EB	FR	IDF	LR	PCR	PE	PR	SR	ST
ADF											
C	0.744										
EB	0.890	0.908									
FR	0.139	0.108	0.095								
IDF	0.959	0.754	0.851	0.075							
LR	0.273	0.497	0.321	0.276	0.362						
PCR	0.153	0.165	0.258	0.189	0.213	0.375					
PE	0.816	0.902	0.852	0.099	0.851	0.445	0.283				
PR	0.128	0.205	0.146	0.217	0.163	0.550	0.502	0.169			
SR	0.282	0.331	0.427	0.347	0.270	0.307	0.633	0.373	0.539		
ST	0.936	0.935	0.906	0.103	0.865	0.375	0.202	0.816	0.143	0.308	

All of the values in the HTMT table of non-users that evaluate discriminant validity are below the crucial cutoff point of 0.90, suggesting that the constructs are sufficiently different from one another. For instance, the HTMT values between economic benefit (EB) and legal risk (LR) are 0.604 and between perceived risk (PR) and seamless transaction (ST) are 0.493, both of which fall well within acceptable bounds. This demonstrates how each construct adds in a different way to the explanation of attitudes and intentions related to digital finance, thereby enhancing the model's validity and conceptual clarity for non-users.

Table 6: Bootstrapping Results

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
SR → ADF	0.344	0.341	0.061	5.639	0.000
FR → ADF	0.052	0.050	0.049	1.061	0.029
PR → ADF	0.137	0.140	0.056	2.446	0.015
PCR → ADF	0.042	0.045	0.053	0.792	0.428
LR → ADF	-0.461	-0.458	0.065	7.092	0.000
EB → ADF	0.403	0.401	0.058	6.948	0.000
C → ADF	-0.284	-0.287	0.071	3.986	0.720
ST → ADF	0.547	0.544	0.062	8.823	0.000
PE → ADF	0.253	0.251	0.059	4.288	0.000
ADF → IDF	0.854	0.852	0.041	20.829	0.000

The findings show that security risk (SR → ADF) has a significant and positive effect (β = 0.344, p = 0.000), suggesting that security-related worries affect how non-users feel about digital finance. This implies that non-users' opinions improve when they believe digital platforms are safe. Financial risk (FR → ADF) also exhibits a small but significant effect (β = 0.052, p = 0.029), suggesting that while attitudes are influenced by the fear of financial loss, this influence is less pronounced than that of other predictors. Benefits like seamless transactions or financial returns have a stronger influence on non-users' opinions than perceived risk (PR → ADF), which also has a slight but significant impact (β = 0.137, p = 0.015).

However, psychological risk (PCR → ADF) turns out to be a negligible predictor (β = 0.042, p = 0.428). This suggests that the attitudes of non-users are not substantially changed by stress, anxiety, or a lack of confidence in utilizing digital financial systems. Legal risk (LR → ADF), on the other hand, has the strongest negative effect (β = -0.461, p = 0.000), indicating that uncertainty regarding legal frameworks and regulatory protection is a significant deterrent. This research emphasizes how crucial it is to fortify consumer protection laws and guarantee unambiguous regulatory protections in order to lessen reluctance among non-users.

Economic benefit (EB → ADF) considerably improves attitudes toward benefits (β = 0.403, p = 0.000), indicating that perceived cost savings, better rates, or financial advantages drive non-users to think about adoption. It's interesting to note that convenience (C → ADF) has a negative correlation (β = -0.284, p = 0.000). This surprising result could be the result of non-users viewing digital finance as less practical than traditional approaches, which could be related to usability problems, a lack of digital literacy, or restricted access to technology. Nonetheless, the most significant positive driver is the seamless transaction (ST → ADF) (β = 0.547, p = 0.000), which supports the notion that quick, easy, and dependable transactions are very alluring attributes for possible adopters. Perceived enjoyment (PE → ADF) also has a significant positive impact (β = 0.253, p = 0.000), indicating that positive attitudes are further encouraged by ADF.

Lastly, the model's strongest and most significant effect is shown by attitude toward digital finance (ADF → IDF) (β = 0.854, p = 0.000). This demonstrates that among non-users, having a positive outlook is the most important factor in determining their intention to use digital financial services. To put it another way, non-users' chances of actual adoption significantly rise once they form positive perceptions. These results show that while legal issues and inconvenience perceptions continue to be major obstacles, adoption is strongly encouraged by advantages like seamless transactions, financial gains, and enjoyment.

Data Analysis of User

Table 7: Total Effects

	SR	FR	PR	PCR	LR	EB	C	ST	PE	ADF	IDF
SR										-0.434	
FR										-0.043	
PR										-0.555	
PCR										-0.660	
LR										-0.601	
EB										0.386	
C										0.056	
ST										0.232	
PE										0.228	
ADF											0.848
IDF											

The Total Effects table sheds light on the ways in which different constructs affect users' attitudes toward digital finance (ADF) and intentions to adopt it (IDF). Perceived ease (PE = 0.228) and convenience (C = 0.056) also have moderate positive effects on ADF, but economic benefit (EB = 0.386) and seamless transaction (ST = 0.232) have the strongest positive effects. Key psychological and regulatory barriers are revealed by the most significant negative effects, which are psychological risk (PCR = -0.660) and legal risk (LR = -0.601). Remarkably, perceived risk (PR = -0.555) and self-risk (SR = -0.434) are also strong deterrents. These findings demonstrate that although attitudes can be improved by perceived benefits like enjoyment and seamless transaction, non-user openness to digital finance is still suppressed by a number of risk perceptions, particularly those pertaining to legality and privacy.

Table 8: Correlations of all Latent Variables

	SR	FR	PR	PCR	LR	EB	C	ST	PE	ADF	IDF
SR	1.000	0.255	-0.235	-0.022	0.273	-0.243	-0.009	-0.145	-0.208	-0.206	-0.182
FR	0.255	1.000	-0.037	-0.010	0.148	-0.166	0.015	-0.142	-0.082	-0.164	-0.138
PR	-0.235	-0.037	1.000	0.085	-0.038	0.359	0.209	0.342	0.280	0.243	0.304
PCR	-0.022	-0.010	0.085	1.000	0.174	-0.161	-0.118	-0.110	-0.171	-0.197	-0.155
LR	0.273	0.148	-0.038	0.174	1.000	-0.161	-0.121	-0.161	-0.160	-0.168	-0.145
EB	-0.243	-0.166	0.359	-0.161	-0.161	1.000	0.673	0.779	0.715	0.773	0.751
C	-0.009	0.015	0.209	-0.118	-0.121	0.673	1.000	0.659	0.628	0.608	0.631
ST	-0.145	-0.142	0.342	-0.110	-0.161	0.779	0.659	1.000	0.676	0.723	0.759
PE	-0.208	-0.082	0.280	-0.171	-0.160	0.715	0.628	0.676	1.000	0.702	0.703
ADF	-0.206	-0.164	0.243	-0.197	-0.168	0.773	0.608	0.723	0.702	1.000	0.848
IDF	-0.182	-0.138	0.304	-0.155	-0.145	0.751	0.631	0.759	0.703	0.848	1.000

Strong and statistically significant relationships between a number of variables for users are shown by the correlation matrix. These are key adoption motivators, as evidenced by the strong positive correlations found between attitude toward digital finance (ADF) and intention to adopt (IDF = 0.848), economic benefit (EB = 0.773), and seamless transaction (ST = 0.723). Additionally, there are moderate to strong positive correlations between ADF and perceived ease (PE = 0.702) and convenience (C = 0.608). However, ADF has a negative correlation with psychological risk (PCR = -0.197), legal risk (LR = -0.168), and self-risk (SR = -0.206), suggesting that these risks have a significant impact on non-users' reluctance. Although less pronounced, the negative correlation

between ADF and financial risk (FR = -0.164) also raises concerns about potential financial repercussions. These results lend credence to the notion that risk factors are important, but perceptions of benefit have a greater impact on the development of a positive attitude.

Table 9: R Square

	R-square	R-square adjusted
ADF	0.673	0.663
IDF	0.719	0.718

The model's explanatory power is shown by the R-squared values for users. With an R2 of 0.673, attitude toward digital finance (ADF) indicates that the independent variables account for roughly 67.3% of the variance in attitude. In the meantime, the intention to adopt digital finance (IDF) has an even higher R2 of 0.719, which indicates that the model accounts for 71.9% of its variance. These results indicate that the variables chosen (risk and benefit factors) are in line with explaining the intentions and behavior of non-users in digital finance and show a strong predictive model.

Table 10: Validity and Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
SR	0.799	0.836	0.879	0.709
FR	0.831	0.895	0.895	0.740
PR	0.554	0.272	0.565	0.422
PCR	0.840	-4.481	0.522	0.322
LR	0.701	0.571	0.692	0.490
EB	0.898	0.904	0.936	0.830
C	0.901	0.901	0.938	0.834
ST	0.882	0.883	0.927	0.810
PE	0.817	0.830	0.916	0.844
ADF	0.911	0.913	0.937	0.789
IDF	0.880	0.881	0.926	0.807

The majority of constructs show strong internal reliability and validity, according to the convergent validity results. High internal consistency and convergent validity are confirmed by the AVE > 0.50, Cronbach's alpha > 0.80, and Composite Reliability > 0.85 of all major constructs, including ADF, EB, C, IDF, PE, and ST. Perceived Risk (PR) and Psychological risk (PCR) have lower reliability and comparatively low AVE values (0.322 and 0.422), which suggests that non-users may not measure or interpret these measures as consistently. Similarly, the borderline AVE of 0.490 for Legal Risk (LR) indicates weaker construct validity. These issues draw attention to the necessity of better measuring non-users' perceptions of risk, particularly with regard to privacy and legal aspects.

Table 11: HTMT

	ADF	C	EB	FR	IDF	LR	PCR	PE	PR	SR	ST
ADF											
C	0.668										
EB	0.849	0.748									
FR	0.179	0.069	0.183								
IDF	0.946	0.709	0.843	0.151							

LR	0.168	0.125	0.157	0.276	0.155					
PCR	0.092	0.059	0.081	0.129	0.086	0.325				
PE	0.808	0.731	0.834	0.096	0.826	0.163	0.073			
PR	0.255	0.222	0.403	0.185	0.328	0.652	0.459	0.310		
SR	0.235	0.034	0.277	0.360	0.220	0.357	0.174	0.253	0.367	
ST	0.805	0.739	0.875	0.153	0.861	0.166	0.060	0.797	0.354	0.166

All of the constructs' HTMT (Heterotrait-Monotrait Ratio) values fall below the crucial cutoff point of 0.90 for users, suggesting acceptable discriminant validity. ADF & EB (0.849) and ADF & IDF (0.946) have the highest HTMT values; the latter is marginally above the suggested threshold, indicating a very strong correlation that may indicate conceptual overlap between attitude and intention. However, other constructs like perceived risk, legal risk, and psychological risk exhibit HTMT values with other variables that are well within the acceptable range, indicating that these constructs are unique and that non-users perceive them differently (Rahi, 2023). This upholds the structural soundness of the model and validates the distinct function of each construct in shaping behavior.

Table 12: Bootstrapping Results

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
SR → ADF	-0.434	-0.431	0.064	6.781	0.000
FR → ADF	-0.043	-0.046	0.051	0.843	0.400
PR → ADF	-0.555	-0.553	0.071	7.817	0.000
PCR → ADF	-0.660	-0.656	0.067	9.851	0.000
LR → ADF	-0.601	-0.598	0.066	9.106	0.000
EB → ADF	0.386	0.388	0.057	6.772	0.000
C → ADF	0.056	0.053	0.049	1.143	0.253
ST → ADF	0.232	0.229	0.060	3.867	0.000
PE → ADF	0.228	0.226	0.059	3.864	0.000
ADF → IDF	0.848	0.847	0.042	20.190	0.000

According to the total effects analysis, users' attitudes toward digital finance (ADF) and their intention to adopt it (IDF) are significantly influenced by their perceptions of risk and benefit. The most potent deterrents are psychological risk (PCR = -0.660) and legal risk (LR = -0.601), which emphasize how adoption is severely hampered by privacy worries, regulatory ambiguity, and fear of possible financial data misuse. Similar to this, users' hesitancy is reflected in perceived risk (PR = -0.555) and self-risk (SR = -0.434), which both show strong barriers. While perceived ease (PE = 0.228) and convenience (C = 0.056) offer additional support, albeit to a lesser degree, the positive side of the model shows that economic benefit (EB = 0.386) and seamless transaction (ST = 0.232) are significant motivators that enhance favorable attitudes. According to these findings, openness toward digital finance is encouraged by advantages like efficiency and financial gains, but enduring worries about security, legality, and personal exposure continue to be significant obstacles that need to be removed in order to increase adoption intentions.

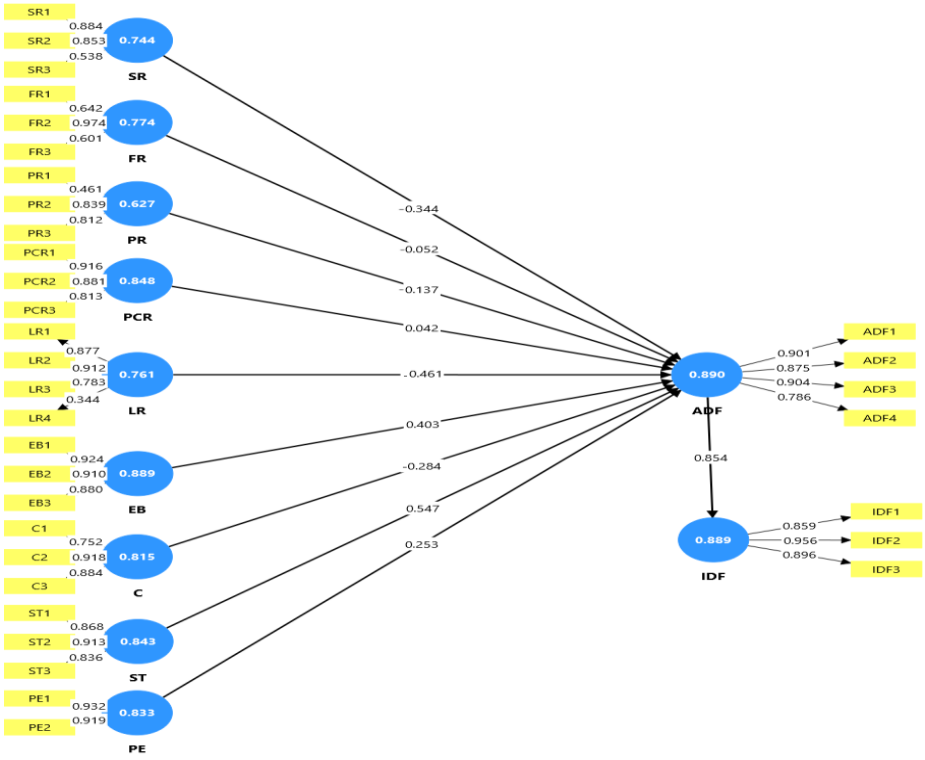


Figure 1 Non User Of Digital Finance

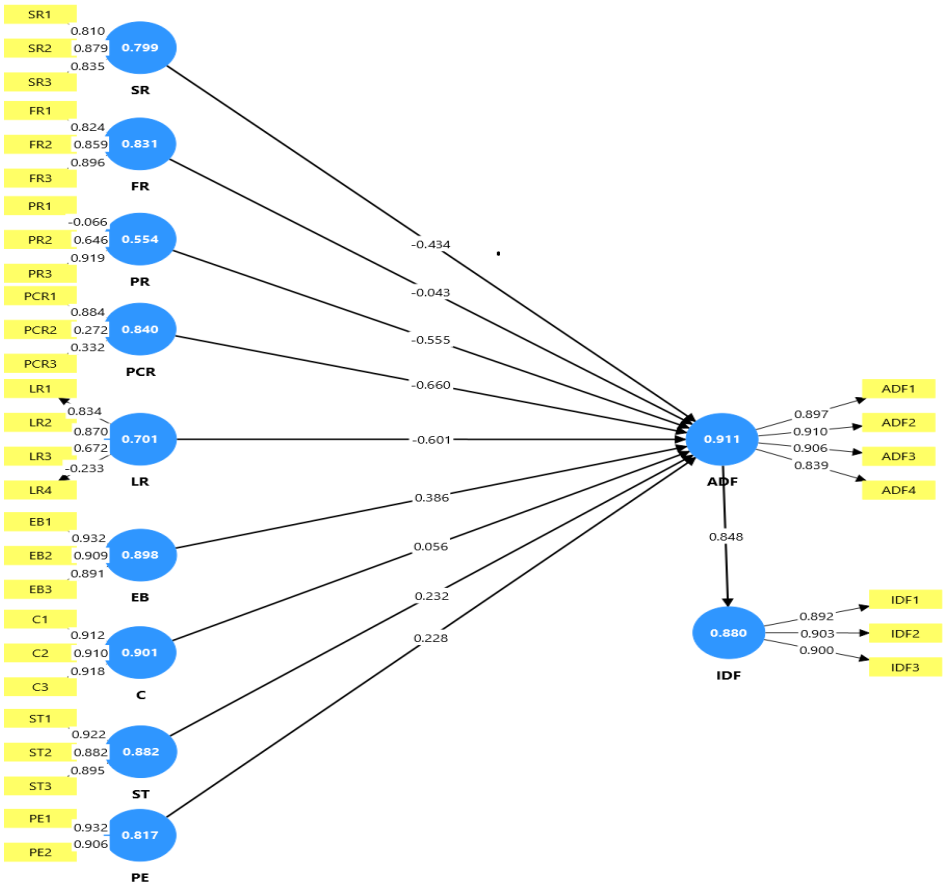


Figure 2 User of Digital Finance

Findings

Significant disparities in the perceptions of risks and benefits were found in the comparative study between Pakistani digital finance users and non-users. Hypotheses H6A–H9A were supported by the statistically significant positive influence that economic benefit, convenience, seamless transactions, and perceived enjoyment had on users' attitudes toward digital finance. Contrarily, user attitudes were significantly impacted negatively by perceived security risk, financial risk, and psychological risk (supporting H1A, H2A, and H4A), whereas performance risk and legal risk had less pronounced or non-significant effects.

The influence pattern was different for non-users. Attitudes regarding digital finance were significantly and negatively impacted by security risk, financial risk, performance risk, psychological risk, and legal risk, all of which supported H1B–H5B. On the benefits side, only convenience and financial gain were found to significantly improve attitude (partially supporting H6B and H7B); perceived enjoyment and seamless transactions did not reach significance (Anderson, 2023).

This is very important to mention here that the study has find out that the psychological risk is positively associated while convenience is negatively associated with the adoption to digital finance which can be further researched as this is insignificant. It may be due to the fact that the non-user have no idea to access the convenience of digital finance.

Intention to adopt or continue using digital finance was strongly predicted by attitude in both groups (supporting H10A and H10B). Significantly, the association between attitude and intention was found, with a stronger effect among users.

Conclusion

This study emphasizes that users and non-users in Pakistan have distinct experiences with the perceived risks and advantages of digital finance. Although consumers tend to appreciate the ease, financial rewards, and fun that come with digital finance, non-users are still more vulnerable to risks, particularly those related to performance, psychological, and legal risk, which outweigh any potential advantages. The findings support the applicability of the risk-benefit paradigm in elucidating attitudes toward digital finance, but they also highlight the significance of contextual variations in adoption patterns. This finding is especially important for developing nations like Pakistan, where, despite rapid technological advancement and expanding access to digital infrastructure, adoption of digital finance is still below potential.

Recommendations

- To address the high perceived risks among non-users, financial institutions should make investments in improved security procedures, open communication on fraud prevention, and guarantees of legal protection.
- By using interactive demonstrations and user testimonials to highlight the simplicity and security of digital transactions, targeted campaigns should directly address psychological issues.
- Economic advantages, ease of use, and smooth experiences should be emphasized in promotional strategies as key value propositions for both users and non-users.
- Benefits must be contextualized with relatable use cases (such as secure remittances or quicker utility bill payments) in order to close the familiarity gap with non-users.

- To improve consumer protection and foster trust, policymakers should bolster regulations pertaining to digital finance.

References

1. Ali, A., Golra, O. A., Rafiq, Z., & Khan, K. I. (2025). Dual logic integration by social enterprises: exploring the challenges and strategies of scaling in Pakistan. *Social Enterprise Journal*. https://doi.org/10.1108/SEJ-03-2025-0060
2. Alnemer, H. A. (2022). Determinants of digital banking adoption in the Kingdom of Saudi Arabia : A technology acceptance model approach. *Digital Business*, *2*(2), 100037. https://doi.org/10.1016/j.digbus.2022.100037
3. Amber, Q., Sumbal, M. S., Tsang, Y. P., Papa, A., & Nauman, S. (2025). Change is always permanent: the role of ChatGPT on knowledge workers' productivity and innovative behavior. *Journal of Knowledge Management*. https://doi.org/10.1108/JKM-01-2025-0091
4. Anderson, J. R. (2023). The role of subjective norms in developing entrepreneurial intentions in university students. *Journal of Strategy and Management*. https://doi.org/10.1108/JSMA-10-2022-0190
5. Ariff, M. S. M., Sylvester, M., Zakuan, N., Ismail, K., & Ali, K. M. (2014). Consumer perceived risk, attitude and online shopping behaviour; Empirical evidence from Malaysia. *IOP Conference Series: Materials Science and Engineering*, *58*(1), 1–10. https://doi.org/10.1088/1757-899X/58/1/012007
6. Asad, M. M., & Aijaz, A. (2025). Influence of ChatGPT and generative AI on continuous learning and skill enhancement in Education 4.0: contextual insights from the higher education of Pakistan. *TQM Journal*. https://doi.org/10.1108/TQM-09-2024-0357
7. Beard, D. W., & Dess, G. G. (1981). Corporate-Level Strategy, Business-Level Strategy, and Firm Performance. *Academy of Management Journal*, *24*(4), 663–688. https://doi.org/10.2307/256169
8. Chan, K. H., Chong, L. L., & Ng, T. H. (2022). Integrating extended theory of planned behaviour and norm activation model to examine the effects of environmental practices among Malaysian companies. *Journal of Entrepreneurship in Emerging Economies*, *14*(5), 851–873. https://doi.org/10.1108/JEEE-08-2021-0317
9. Channa, K. A., Khoso, D. H., & Malik, A. H. (2025). Anti-money laundering regulations in Pakistan: a comparative analysis with global best practices. *Journal of Money Laundering Control*, *28*(3), 518–532. https://doi.org/10.1108/JMLC-03-2025-0038
10. Chinoda, T., & Kapingura, F. M. (2023). Digital financial inclusion and economic growth in Sub-Saharan Africa: the role of institutions and governance. *African Journal of Economic and Management Studies*. https://doi.org/10.1108/AJEMS-09-2022-0372
11. Fauzi, M. A., Nguyen, M., & Malik, A. (2023). Knowledge sharing and theory of planned behavior: a bibliometric analysis. *Journal of Knowledge Management*. https://doi.org/10.1108/JKM-11-2022-0933
12. Fraj-Andrés, E., Herrando, C., Lucia-Palacios, L., & Pérez-López, R. (2023). Intention versus behaviour: integration of theories to help curb food waste among young Spanish consumers. *British Food Journal*, *125*(2), 570–586. https://doi.org/10.1108/BFJ-09-2021-1042
13. Garg, S. (2019). Conceptual Framework. *HR Initiatives in Building Inclusive and Accessible Workplaces*, 19–43. https://doi.org/10.1108/978-1-83867-611-720191002
14. Gupta, K., Wajid, A., & Gaur, D. (2023). Determinants of continuous intention to use FinTech services: the moderating role of COVID-19. *Journal of Financial Services Marketing*, *0123456789*. https://doi.org/10.1057/s41264-023-00221-z
15. Hidayat-ur-Rehman, I., Alam, M. N., Bhuiyan, A. B., & Zulkifli, N. (2025). The FinTech

adoption in rural areas of Pakistan: an application of SEM and ANN approach. *Asia-Pacific Journal of Business Administration*. https://doi.org/10.1108/APJBA-02-2024-0111

16. Iqbal, Y., Rehman, S. U., Akram, I., Abdulmuhsin, A. A., & Afzal, M. A. (2025). Uncovering the relationship between intellectual capital, organizational resilience, innovation capacity, risk-taking tolerance and competitive advantage in manufacturing context. *Business Process Management Journal*. https://doi.org/10.1108/BPMJ-03-2025-0264
17. James, A., Rotimi, F. E., & Purushothaman, M. B. (2025). Evaluating risk management strategies in residential construction: their influence on project performance in NZ. *Smart and Sustainable Built Environment*, 1–42. https://doi.org/10.1108/SASBE-04-2025-0194
18. Javaid, O., Shamsi, A. F., & Hyder, I. (2025). Conflict dynamics and preventive strategies in family firms: insights from ethnic entrepreneurial communities in Pakistan. *Journal of Enterprising Communities*. https://doi.org/10.1108/JEC-04-2023-0052
19. Jungo, J., Madaleno, M., & Botelho, A. (2023). Controlling corruption in African countries: innovation, financial inclusion and access to education as alternative measures. *International Journal of Social Economics*. https://doi.org/10.1108/IJSE-08-2022-0520
20. Keng-Soon, C., Choo Yen-San, W., Pui-Yee, Y., Hong-Leong, C., & Teh Shwu-Shing, J. (2019). an Adoption of Fintech Service in Malaysia. *South East Asia Journal of Contemporary Business, Economics and Law*, *18*(5), 134–144.
21. Kwaku Nimsaah, W., Owusu-Mensah, S., Atakora, A., & Amofah, O. (2025). Consumption values and sustainable e-government services: retrospection of Ghana's digitalisation agenda and post-use trust in e-government. *Transforming Government: People, Process and Policy*. https://doi.org/10.1108/TG-05-2025-0116
22. Lee, J. M., & Kim, H. J. (2020). Determinants of adoption and continuance intentions toward Internet-only banks. *International Journal of Bank Marketing*, *38*(4), 843–865. https://doi.org/10.1108/IJBM-07-2019-0269
23. Li, C., Khaliq, N., Chinove, L., Khaliq, U., Popp, J., & Oláh, J. (2023). Cryptocurrency Acceptance Model to Analyze Consumers' Usage Intention: Evidence From Pakistan. *SAGE Open*, *13*(1). https://doi.org/10.1177/21582440231156360
24. Meng, B., Lee, M. J., Chua, B. L., & Han, H. (2022). An integrated framework of behavioral reasoning theory, theory of planned behavior, moral norm and emotions for fostering hospitality/tourism employees' sustainable behaviors. *International Journal of Contemporary Hospitality Management*, *34*(12), 4516–4538. https://doi.org/10.1108/IJCHM-02-2022-0151
25. Mohammed, I., Mahmoud, M. A., Preko, A., Hinson, R., & Yeboah, J. G. (2022). The impact of halal tourism on Muslim diaspora intention to recommend: an application of the theory of planned behaviour. *Journal of Hospitality and Tourism Insights*. https://doi.org/10.1108/JHTI-10-2021-0297
26. Mohanty, D., Mohapatra, A. K., Singhania, S., & Emani, R. (2025). Currency fluctuations and stock market dynamics: insights from India's metaverse industry based on time series models. *Journal of Modelling in Management*. https://doi.org/10.1108/JM2-01-2025-0037
27. Morimoto, M. (2025). Antecedents of diffusion of contact-tracing apps for infectious disease prevention in Japan: the roles of self-efficacy and privacy perception. *International Journal of Pharmaceutical and Healthcare Marketing*. https://doi.org/10.1108/IJPHM-01-2025-0004
28. Motwani, K., Choubey, S., Saxena, A., Mehta, M., & Patni, I. (2025). Decoding mobile payment application switching: insights from the Push-Pull-Mooring framework. *China Finance Review International*. https://doi.org/10.1108/CFRI-04-2025-0223
29. Mukherjee, S., Baral, M. M., Lavanya, B. L., Nagariya, R., Singh Patel, B., & Chittipaka,

V. (2023). Intentions to adopt the blockchain: investigation of the retail supply chain. *Management Decision*. https://doi.org/10.1108/MD-03-2022-0369

30. Noor, R., & Mirza, K. (2025). Monopoly Fostered by Regulation: the case of Pakistan Stock Market. *Journal of Economic and Administrative Sciences*. https://doi.org/10.1108/JEAS-10-2024-0440
31. Ozili, P. K. (2022). Digital financial inclusion. *Big Data: A Game Changer for Insurance Industry*, 229–238. https://doi.org/10.1108/978-1-80262-605-620221015
32. Ozili, P. K. (2023). CBDC, Fintech and cryptocurrency for financial inclusion and financial stability. *Digital Policy, Regulation and Governance* , *25*(1), 40–57. https://doi.org/10.1108/DPRG-04-2022-0033
33. Palkar, D. D., & Figueiredo, A. (2025). Cyberattacks on industry peer firms and pricing of initial public offerings. *International Journal of Managerial Finance*, 1–25. https://doi.org/10.1108/IJMF-12-2024-0679
34. Pei, Y., Wang, S., Fan, J., & Zhang, M. (2015). An empirical study on the impact of perceived benefit, risk and trust on E-payment adoption: Comparing quick pay and union pay in China. *Proceedings - 2015 7th International Conference on Intelligent Human-Machine Systems and Cybernetics, IHMSC 2015*, *2*, 198–202. https://doi.org/10.1109/IHMSC.2015.148
35. Prakhar, P., Gupta, S., & Jaiswal, R. (2025). Charging infrastructure scholarship for electric vehicle adoption: current trends and future agendas. *IIMBG Journal of Sustainable Business and Innovation*, 1–25. https://doi.org/10.1108/IJSBI-12-2024-0071
36. Rahi, S. (2023). What drives citizens to get the COVID-19 vaccine? The integration of protection motivation theory and theory of planned behavior. *Journal of Social Marketing*, *13*(2), 277–294. https://doi.org/10.1108/JSOCM-05-2022-0100
37. Sarikhani, M., & Ebrahimi, F. (2022). Whistleblowing by accountants: an integration of the fraud pentagon and the extended theory of planned behavior. *Meditari Accountancy Research*, *30*(6), 1740–1763. https://doi.org/10.1108/MEDAR-10-2020-1047
38. Schwirblat, T., Freberg, K., & Freberg, L. (2022). Cancel Culture: A Career Vulture amongst Influencers on Social Media. *The Emerald Handbook of Computer-Mediated Communication and Social Media*, 359–375.
39. Srairi, S. (2025). ESG performance in GCC banks: the influence of ownership structure, risk attitude and board characteristics in Islamic vs conventional contexts. *Sustainability Accounting, Management and Policy Journal*. https://doi.org/10.1108/SAMPJ-11-2024-1190
40. Trinh, H. N., Tran, H. H., & Vuong, D. H. Q. (2020). Determinants of consumers' intention to use credit card: a perspective of multifaceted perceived risk. *Asian Journal of Economics and Banking*, *4*(3), 105–120. https://doi.org/10.1108/ajeb-06-2020-0018
41. Vadithe, R. N., Kesari, B., & Akkala, S. (2025). An empirical investigation of blockchain adoption using the privacy calculus approach: mediating role of perceived risks and perceived benefits. *Kybernetes*. https://doi.org/10.1108/K-11-2024-3105
42. Voronenko, D. (2018). *Determining Factors of Adoption of Digital Device Wallets by Russian Consumers*. 2–93. https://dspace.spbu.ru/bitstream/11701/12245/1/Voronenko_Dmitrii_Olegovich_MiM_2018.pdf
43. Wang, X., & Chen, X. (2023). An empirical study on financing constraints of digital inclusive finance development on small and medium-sized technology-based enterprise. *Kybernetes*, *52*(2), 585–600. https://doi.org/10.1108/K-01-2022-0095