

Factors affecting middle eastern countries' intention to use financial technology

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ABSTRACT

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Financial technology, also known as Fintech, continues to transform the financial services sector globally. Fintech adoption has been delayed in some places, particularly in the Middle East, despite the potential positive benefits. This study investigates the mediating effect of perceived ease of use on the relationship between seamless transactions, financial risk, legal risk, security risk, perceived risk, and the intention to use financial technology in Middle Eastern countries. Data was collected from 500 respondents from five Middle Eastern countries (Jordan, Kuwait, Saudi Arabia, Qatar, and the United Arab Emirates) using a structured questionnaire, and partial least squares structural equation modelling (PLS-SEM) was used to test the research model. The findings demonstrate that perceived ease of use strongly mediates the links between seamless transactions, financial risk, legal risk, security risk, perceived risk, and the intention to use financial technology. The study shed light on the significance of perceived ease of use in influencing people's intention to utilize financial technology as well as the function it serves in minimizing the effects of perceived risks. The findings of this study could be useful for financial technology companies operating in Middle Eastern countries, policymakers, and researchers interested in the adoption of financial technology.

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1. Introduction

The adoption of financial technology (FinTech) has grown in popularity in recent years on a global scale, and the Middle East is one of the regions where FinTech is booming. Phan et al. (2020) describe "fintech" as "the application of financial technology to the provision of financial services and products." P2P lending platforms, crowdfunding platforms, and mobile payment systems are all examples of such uses. The increasing use of smartphones and the internet, together with other reasons, have contributed to the development of the financial technology industry (Suseendran et al., 2020). The Middle East has identified a number of problems that may be addressed with the help of FinTech. These problems include lowering costs, increasing access to financing, and expanding financial inclusion. The lack of or limited access to conventional banking services is a major barrier to financial inclusion in the Middle East (Kheira, 2021). Microfinance and mobile banking are just two examples of how fintech is making traditional banking more accessible to previously underserved communities. The banking industry is always looking for ways to cut costs and improve efficiency, and FinTech can help them do so (Naz et al., 2022). For instance, peer-to-peer lending platforms can provide borrowers with lower interest rates than traditional banks, and online payment and remittance services can save the time and money needed to transmit money across borders. While there are many benefits to using FinTech, there are also some hazards that make widespread adoption difficult. The potential monetary impact

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of these risks is uncertain. Non-financial risks include worries about security and privacy, legal and regulatory risks, and user perception, whereas financial risks include the possibility of fraud, default, or other financial losses. One of the biggest problems with fintech is how people feel about using it (David, & Williams, 2022). Although many people would benefit from using FinTech services, some may be unwilling to do so out of fear for their personal security and privacy. This could cause consumers to lose faith in FinTech companies, which could slow down adoption. To get beyond these roadblocks, knowing what makes people want to adopt fintech is essential (Chang et al., 2020). The first impression of usefulness is important. The apparent complexity or difficulty of utilizing a technology is what we mean when we talk about its ease of use. Perceived ease of use is a crucial component in determining people's intents to utilize technology (Lukonga, 2021; Cavoli, et al., 2023), as studies have shown that individuals are more likely to adopt technologies, they believe to be easy to use. Perceived ease of use in the FinTech setting can mitigate or moderate the association between perceived risks and intention to use (Tian, et al., 2023). For example, clients may be less likely to adopt FinTech services if they perceive a learning curve, even if they believe the services are risk-free or secure. Even if customers perceive a level of risk when using FinTech services, they may be persuaded to do so if they believe the services are simple to use. Over the past few decades, however, the Middle East has seen substantial economic growth and progress, with many countries in the region diversifying their economy away from traditional industries like oil and gasoline. Therefore, entrepreneurialism, innovation, and technological progress are becoming increasingly important in driving economic growth and competitiveness. The financial technology business has grown rapidly in the region in recent years (Banerjee, 2020). Fintech's ability to broaden access to financial services and fuel regional growth has made it a regional favorite. Fintech, as defined by Al-Mudimigh and Anshari (2020), is the application of technology to the provision of new and improved financial services. The large and increasing number of young people in the area is a major factor in the success of the fintech business there. Young people in the Middle East are becoming increasingly tech savvy and online, and they are often early adopters of innovative financial technology solutions. Governments in the area have taken action to help fintech firms through a variety of initiatives and regulatory frameworks because they see the potential of fintech to stimulate economic growth (Zarrouk et al., 2021). This has led to a boom in the development of innovative banking apps, payment systems, and other financial technologies in the Middle East over the past several years. PayTabs, Tabby, and PayFort are just a few of the well-known companies in the Middle Eastern fintech market that offer a variety of payment options for both individuals and enterprises (Kheira, 2021). Other notable fintech firms in the area include the peer-to-peer financing platform Beehive and the financial product comparison website Souqalmal. However, the growth of the fintech sector in the Middle East faces a number of obstacles. Some areas may lack the necessary digital infrastructure, while others may have legal restrictions that prevent fintech enterprises from flourishing. Not all populations in the region will have the same level of comfort using digital financial services, as local cultural attitudes toward money and banking might vary widely (Jamil, & Seman, 2019). It is crucial to understand the factors that influence users' intents to use fintech in the Middle East, where adoption of the technology has been rising. Numerous researches have been conducted in this area, but most of them have focused on particular factors like trust, attitude, or perceived usefulness while downplaying the significance of other factors like hazards and perceived simplicity of FinTech use. Consequently, this study aims to examine the mediating effect of perceived ease of use on the relationship between different types of risks and the intention to use FinTech in Middle Eastern countries.

2. Literature Review

2.1 Overview of Fintech in the Middle Eastern Countries

The term *fintech*, which stands for *financial technology*, describes the inventive use of technology to provide financial services and goods. Rapid expansion of the industry worldwide has also been witnessed in Middle Eastern nations. Fintech's popularity in the Middle East has skyrocketed recently, and it's poised to revolutionize the region's banking system (Takeda & Ito, 2021). Western Asia and North Africa are considered part of the Middle East. Several Middle Eastern nations, including the United Arab Emirates (UAE), Saudi Arabia, Bahrain, Qatar, Oman, and Kuwait, are located here. More than 400 million people call that area home. For decades, Middle Eastern economic growth has been driven by the region's abundant oil resources (Burton et al., 2020). Despite this, fintech has emerged as a crucial driver of this diversification, and it has become a priority for regional governments. For a number of reasons, fintech is becoming increasingly popular in the Middle East. One of these issues is the widespread use of smartphones and internet access in the region (Chinnasamy et al., 2021). With about 90% of the population having access to a mobile phone, the Middle East has one of the highest smartphone penetration rates in the world. More than 60% of the population is under the age of 30, making this a very young region. Abraham, et al., 2022). Since they are tech-savvy and receptive to novel concepts, this group is an ideal market for fintech offerings. Furthermore, municipal governments have shown support for the fintech industry. The United Arab Emirates (UAE), Saudi Arabia, and Bahrain are just a few of the Middle Eastern countries that have created regulatory sandboxes for fintech firms to try out their wares. Similarly, some governments have established fintech centres to foster development in the industry. Many different types of financial technology companies, such as those dealing with payments, loans, investments, and insurance, have set up shop in the Middle East. Some of the most prominent fintech firms in the area are: PayFort is a popular online payment processing option in the UAE. a financial product comparison platform established in the UAE. Compares things like credit cards, loans, and insurance. Beehive is a P2P financing platform that facilitates relationships between investors and SMEs in the United Arab Emirates. Aqeed, a digital insurance platform headquartered in the United Arab Emirates, facilitates the online acquisition of insurance policies. Sarwa, a digital investing platform based in the United Arab Emirates, provides clients with access

to automated investment advising services. Domestic and foreign investors alike are pouring millions of dollars into the region's burgeoning fintech sector. MAGNiTT, a startup data platform, found that funding for Middle Eastern fintech businesses in 2019 was over \$400 million, up 30% year-over-year. The Middle Eastern financial technology business is expanding, although it still confronts several obstacles (Alkhazaleh, 2021). The lack of a legislative framework tailored to the unique dangers and difficulties of fintech is a major problem. However, traditional banks continue to play a significant role in the region's financial services sector. Financial institutions may be hesitant to adopt fintech because they fear it would threaten their profitable status quo. Finally, the financial technology (fintech) sector is growing in the Middle East, and it has the potential to radically alter the financial services sector there. The region is ripe for financial services due to its high internet and mobile phone penetration, friendly regulatory environment, and young, tech-savvy populace. The fintech industry in the Middle East has great potential, despite ongoing difficulties.

2.2 Technology Acceptance Model (TAM)

Fintech's presence has revolutionized the banking and financial sector by making services more accessible and efficient. Users' intention to adopt a new technology is crucial to its ultimate success (Alhashmi et al., 2019). The Davis-proposed Technology Acceptance Model (TAM) has seen extensive application for making predictions and gaining insight into the reception of new technology. According to the Technology Acceptance Model (TAM) (Ayaz & Yanartaş, 2020), users' intention to adopt a new information system (including Fintech) is contingent on their impressions of the system's utility and its user-friendliness. Consumers' expectations about a technology's ability to boost their efficiency and effectiveness are captured by the term "perceived usefulness." A technology's perceived ease of use is how simple its users think it is to pick up and start using. Individuals' attitudes toward and comfort with technology may be influenced by these two aspects (Ammenwerth, 2019). Social media, digital libraries, internet banking, and mobile banking are only some of the examples of technologies for which the TAM model has been used in research. Financial institutions and technology firms can better create and develop products that satisfy consumers' wishes and expectations if they take into account consumers' perceptions of Fintech's utility and ease of use (Al-Emran et al., 2020; Gün, 2020). Financial institutions can build marketing campaigns and educational programs to stress the benefits of Fintech and eliminate any perceived risks or adoption obstacles by analyzing consumer perceptions and intentions to use the technology.

2.3 Theory of Reasoned Action (TRA)

According to the social psychology theory known as the Theory of Reasoned Action (TRA), our attitudes and subjective standards shape our intentions, which in turn shape our actions (Alryalat, et al., 2020). Martin Fishbein and Icek Ajzen refined the earlier Theory of Attitudes in the 1970s. The TRA holds that the motivation behind an individual's actions is the decisive factor in that individual's behavior (Copeland, & Zhao, 2020). Attitudes and individual subjective norms are two factors that can shape future behavior. Subjective norms focus on an individual's impression of social pressure to engage in or refrain from the conduct, whereas attitudes refer to an individual's favorable or negative judgment of the behavior (Alryalat, et al., 2020). The TRA also contends that various subjective norms and appraisals are given varying degrees of importance when extrapolating future intentions and actions. Attitudes are more likely to influence actions when people feel they have some say in the matter than when they believe their actions are being driven by peer pressure or other external factors (Ng, 2020). Among the many fields that have made use of the TRA is consumer, environmental, and health behavior study. Individuals' attitudes and views of societal norms about the use of financial technology might be input into the TRA to predict their propensity to use fintech services. By understanding these factors, fintech firms may create targeted marketing and education initiatives that increase awareness, interest, and use of their services.

2.4 Hypotheses Development

The goal of this research is to provide a theoretical framework that takes into account the potential advantages and drawbacks of using fintech. Previous research has utilized multi-behavioral belief systems to identify the overall benefits and drawbacks. The research looks at the economic benefits, convenience, and frictionless transactions as well as the four primary risk categories of financial, legal, security, and operational hazards. Accordingly, the study assumes that the positive and negative perceptions have a major impact on the perceived benefits and hazards, which in turn affects the intention to adopt Fintech. In the proposed research paradigm, the meaning of the term "perceived risk" is still up for debate. It has been shown that apprehension about potential harm can reduce interest in using fintech (Ryu, 2018). Perceived risk, according to Rich and Cox (2014), is analogous to the toss of the coin as to whether one will win or lose the stake. In this context, the term "perceived risk" refers to the unpleasant impression that people could get from adopting fintech. There are a number of issues around fintech's use, including potential monetary, legal, and security risks. Perceived risk is the likelihood of incurring a complete financial loss, as defined by Derbaix (1983). Lee (2009) defines financial risk as the potential for financial loss due to reckless trading or account manipulation. According to Kuisma et al. (2007), many customers worry about experiencing a loss of funds when making purchases online or sending money abroad. According to research by Maignan and Lukas (1997), customers worry about legal danger while using credit cards online. Users of fintech have reason to worry about security risks like fraud and hacking, which can lead to monetary losses and privacy breaches (Schierz et al., 2010). Consumers worry that their personal information can be stolen when utilizing online banking services, according to research by Littler and Melanthiou

(2006). Furthermore, clients worry about potential losses due to server connection difficulties, as reported by Kuisma et al. (2007). Financial risk, performance risk, social risk, physical danger, security risk, and time loss risk are the six types of perceived risk outlined by Jacoby and Kaplan (1972) and Kaplan et al. (1974). This study develops the following hypotheses:

H₁: *The intention to use Fintech is adversely affected by perceived risk, financial risk, legal risk, and security risk.*

According to Zavolokina et al. (2016), a user's perception of how simple it is to do financial transactions is a major influence in whether or not fintech gets adopted. Users of Fintech platforms for financial transactions want a flawless, straightforward experience (Maharjan et al., 2022). Customers may be more interested in using FinTech companies if they give a straightforward and easy to navigate interface for accessing financial services. Users are more likely to stick with Fintech services if they can quickly and simply learn how to use the platform, conduct transactions, and access their financial information (Barbu et al., 2021). Customers may immediately benefit from this seamless experience due to speedier transactions, real-time information updates, and the ability to execute transactions whenever and wherever they choose. Therefore, a high-quality user experience might affect customers' perceptions of the advantages of embracing fintech, boosting their interest in doing so. This study proposes the following hypothesis:

H₂: *The intention to use Fintech is positively impacted by seamless transactions.*

Since the advent of the Internet, e-commerce has become an integral aspect of many businesses, making it more convenient for customers to buy products and services. However, consumers' apprehension about the security of online purchases is a major hindrance to the industry (Kardi et al., 2023). Consumers should be aware of the potential security, legal, and financial hazards associated with conducting business online. Customer satisfaction and loyalty could suffer because of these potential issues with online purchases (Karim et al., 2020). Making transactions as painless as possible could be one answer to this problem. A hassle-free online purchase is one that is simple to complete, requires little in the way of user input, and encounters no unexpected snags along the way. Customers may be more comfortable making purchases online if the process is straightforward (Chang, & Li, 2022). Understanding how smooth transactions, money risks, legal risks, security risks, and perceived risks affect perceived ease of use is crucial. According to research, the ease of use is greatly enhanced by seamless transactions. A more streamlined purchasing procedure can boost customer satisfaction and retention rates. Perceived simplicity is negatively affected by financial risk, legal risk, and security risk (Ferdianto, 2022). Customers' happiness and loyalty may suffer because of the unease and worry that may be induced by these threats. The ease of usage is diminished by the degree to which something is thought to be dangerous. Online shoppers may be wary of making purchases due to concerns about the reliability of retailers, the quality of goods, and the possibility of fraud (Ventre & Kolbe, 2020). Businesses may boost customer satisfaction and retention by providing a more user-friendly experience, which includes a lower perceived barrier to entry in the form of risk, thanks to measures like the provision of safe payment alternatives, the provision of clear information about products and services, and the assurance of data protection. In conclusion, ensuring hassle-free financial dealings is crucial to giving clients a satisfying shopping experience while making purchases online. Organizations can lessen the effects of financial, legal, security, and perceived risk on perceived ease of use by creating an intuitive transaction process and implementing measures to reduce perceived risk. E-commerce enterprises will have more sustained success over the long run if they prioritize these elements. This study develops the following hypotheses:

H₃: *The Perceived ease of use is adversely affected by perceived risk, financial risk, legal risk, security risk, and seamless transaction.*

The likelihood that a person will adopt new financial technology is significantly affected by their impression of how easy it is to use. According to research (Tahar et al., 2020), customers are more likely to accept and keep using a financial technology product or service if it is simple to use. Customers are more likely to be pleased and loyal to a company and their products or services when they have a positive experience with them. Users are more likely to adopt new financial technologies if they find them to be intuitive to use (Wilson et al., 2021). To enhance customer adoption and loyalty, the financial technology industry must focus on developing simple and straightforward products and services. The following hypothesis are suggested:

H₄: *The intention to use Fintech is positively impacted by perceived ease of use.*

Perceived ease of use describes how simple or complicated a person thinks it is to utilize a given technological tool. User perceptions of the ease (or lack thereof) in conducting transactions, navigating the platform, and making use of the technology's features and functionalities (Chen & Aklirikou, 2020). Perceived ease of use mediates the connection between perceived risk, financial risk, legal risk, security risk, and perceived risk on the inclination to adopt financial technology in the research model. This indicates that these elements affect a user's tendency to adopt financial technology in various ways, one of which is the perceived ease of use. If a user perceives a low barrier to entry for making purchases, they may be more willing to use a financial technology platform that they perceive to pose some financial or security risk. Even if users perceive minimal levels of risk, they may be dissuaded from using a platform if they find it cumbersome to operate (Kusyanti et al., 2022). The perceived simplicity of financial technology may act as a buffer or amplifier between other factors and the decision to employ such tools. What matters most is how it affects users' perceptions and attitudes toward using financial technology.

H₅: *Perceived ease of use as a mediate the influence of Seamless transaction, financial risk, legal risk, security risk, and perceived risk on the intention to use financial technology.*

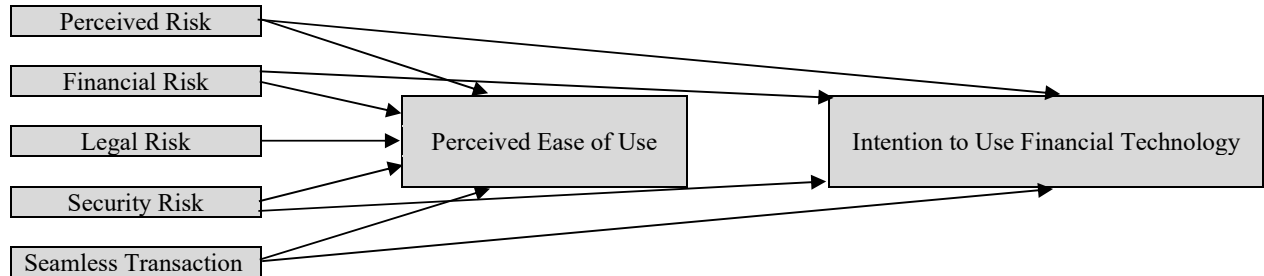


Fig. 1. Research Model

Research hypotheses enabled the development of the conceptual research model depicted in Fig. 1. This study aims to provide a more comprehensive understanding of the factors influencing the adoption of Fintech in the Middle East.

3. Methodology

For the study, 500 participants were chosen from five Middle Eastern nations (Jordan, Kuwait, Saudi Arabia, Qatar, and United Arab Emirates) using a non-probability convenience selection technique. The survey form was developed and distributed online via social media platforms including Facebook, LinkedIn, and Twitter. Perceived ease of use, seamless transactions, financial risk, legal risk, security risk, perceived risk, and intention to use FinTech were all four sections of the questionnaire. The dimensions of perceived ease of use (PEU), seamless transaction (ST), financial risk (FR), legal risk (LR), security risk (SR), perceived risk (PR), and intention to adopt FinTech (I) were all measured using a seven-point Likert scale in the study. The measurement scales were pretested prior to the actual data collecting process and were adapted from earlier studies (Bernal-Torres, et al., 2021; Chen, et al., 2021; Khuong, et al., 2022). PLS-SEM, an effective multivariate tool for examining intricate causal links among variables, was used to evaluate the obtained data. PLS-SEM was chosen because it can handle both reflecting and formative measurement models, is appropriate for small sample sizes, and has a high level of prediction power. Measurement model assessment and structural model assessment made up the two parts of the analysis. To ensure the accuracy and dependability of the measuring tools employed in the study, a measurement model assessment was carried out. Based on the criteria of convergent validity, discriminant validity, and reliability, the measurement model was assessed. To examine the research hypotheses, including the mediating effects of perceived ease of use, a structural model assessment was done. Analysis of the path coefficients, R-squared values, and bootstrapping confidence intervals were all part of the structural model evaluation. The study adhered to ethical standards, including obtaining participants' informed consent and guaranteeing the privacy and anonymity of the data obtained.

4. Results

4.1 The Measurement Model

The statistical assessment of a study model's validity, reliability, and potential biases is covered in this section. Two coefficients, Composite Reliability (CR) and Cronbach's Alpha (CA), are used to assess the reliability of latent variables, which are variables that cannot be observed directly but are inferred from observable variables. A value of at least 0.7 is considered to indicate good reliability.

Table 1

Validity and reliability

Variables	CA	CR	AVE
FR	0.782	0.791	0.693
I	0.875	0.894	0.725
LR	0.732	0.752	0.565
PEU	0.880	0.901	0.5
PR	0.791	0.798	0.621
SR	0.834	0.855	0.661
ST	0.825	0.851	0.503

According to Table 1, the study's constructs' CR and CA are both larger than 0.7, showing good reliability. The AVE (average variance extracted) values of all constructs are higher than 0.5, according to Table 1. With the exception of FR2, ST3, and ST4, the factor loading of the constructs were above 0.50, according to Table 2. Discriminant validity is demonstrated in a study by demonstrating that the square roots of the AVE values were higher than the off-diagonal correlations (see Table 3). This is done to show that the AVE values are discriminant validity when they are higher than other correlation values among any other construct. Additionally, the study evaluated potential biases such multicollinearity issues and common method bias (CMB). Multicollinearity issues were evaluated using the Variance Inflation Factor (VIF), with values lower than 5 suggesting

the model is free of typical technique bias and multicollinearity issues (see Table 4). In order to examine the impact of common method bias (CMB) on the results, the study also used Harman's single factor and common latent factor (CLF) analyses. Because the first variable only explained 39.260% of the variation, which is below the 50% cutoff, Harman's one factor test concluded that there was no major reason for concern over CMB (see Table 5).

Table 2
Factor Loading

	FR	I	LR	PEU	PR	SR	ST
FR1	0.868						
FR2	Deleted						
FR3	0.832						
FR4	0.795						
ST1							0.761
ST2							0.969
ST3							Deleted
ST4							Deleted
LR1			0.756				
LR2			0.843				
LR3			0.828				
LR4			0.740				
PR1					0.853		
PR2					0.862		
PR3					0.763		
PR4					0.756		
PEU1				0.729			
PEU2				0.719			
PEU3				0.770			
PEU4				0.734			
PEU5				0.721			
PEU6				0.771			
PEU7				0.779			
PEU8				0.842			
PEU9				0.771			
I1		0.841					
I2		0.886					
I3		0.882					
I4		0.793					
SR1						0.805	
SR2						0.846	
SR3						0.835	
SR4						0.764	

Table 3
The Fornell and Lacker Discriminant Validity

	FR	I	LR	PEU	PR	SR	ST
FR	0.832						
I	0.455	0.852					
LR	0.681	0.493	0.751				
PEU	0.549	0.516	0.337	0.707			
PR	0.625	0.559	0.527	0.567	0.788		
SR	0.676	0.742	0.631	0.590	0.691	0.813	
ST	0.494	0.626	0.633	0.434	0.578	0.582	0.709

Table 4
Variance Inflation Factor (VIF)

	I	PEU
FR	2.118	2.278
LR	1.292	2.939
PEU	2.145	
PR	2.512	1.243
SR	2.347	2.081
ST	2.501	1.958

Table 5
Common Method Bias

Component	Total Variance Explained					
	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	26.697	39.260	39.260	26.697	39.260	39.260

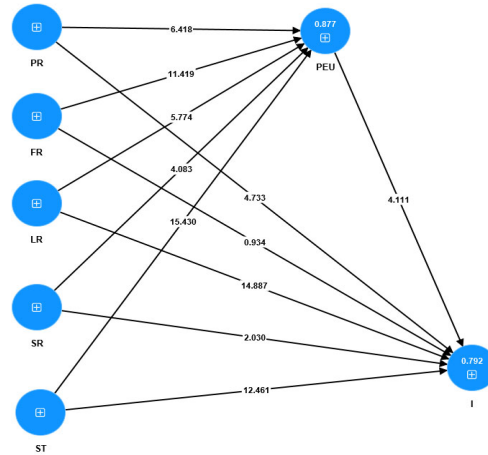


Fig. 2. Path Analysis Result

Table 7
Path Analysis Result

Path	Beta	S.E	T	P
PR → I	-0.221	0.047	4.733	0.000
FR → I	-0.038	0.041	0.934	0.351
LR → I	-0.670	0.045	14.887	0.000
SR → I	-0.096	0.047	2.030	0.043
ST → I	0.576	0.046	12.461	0.000
PR → PEU	-0.182	0.028	6.418	0.000
FR → PEU	-0.321	0.028	11.419	0.000
LR → PEU	-0.208	0.036	5.774	0.000
SR → PEU	-0.180	0.044	4.083	0.000
ST → PEU	0.559	0.036	15.430	0.000
PEU → I	0.202	0.049	4.111	0.000

The first hypothesis argues that it is adversely affected by perceived risk, financial risk, legal risk, and security risk. The results in Table 7 and Fig 2 show that PR has a significant and negative effect on I (Beta=0.221, T=4.733, P<0.05). Also, the results reveal that FR has an insignificant and negative effect on I (Beta=0.038, T=0.934, P>0.05). Moreover, the result indicates that LR has a significant and negative effect on I (Beta=0.670, T=14.887, P<0.05). Similarly, the result discovered that SR has a significant and negative effect on I (Beta=0.096, T=2.030, P<0.05). Furthermore, hypothesis 2 argues the intention to use Fintech is positively impacted by seamless transactions. The result discovered that ST has a significant and positive effect on I (Beta=0.576, T=12.461, P<0.05).

Nevertheless, hypothesis 3 argues that the Perceived ease of use is adversely affected by perceived risk, financial risk, legal risk, security risk, and seamless transaction. The results in Table 7 and Fig 2 show that PR has a significant and negative effect on PEU (Beta=0.182, T=6.418, P<0.05). Also, the results reveal that FR has a significant and negative effect on PEU (Beta=0.321, T=11.419, P<0.05). Moreover, the result indicates that LR has a significant and negative effect on PEU (Beta=0.208, T=5.774, P<0.05). Similarly, the result discovered that SR has a significant and negative effect on PEU (Beta=0.180, T=4.083, P<0.05). Furthermore, the result discovered that ST has significant and negative effects on PEU (Beta=0.559, T=15.430, P<0.05). Conversely, hypothesis 4 argues that the intention to use Fintech is positively impacted by perceived ease of use. The results in Table 7 and Fig 2 show that PEU have significant and positive effects on I (Beta=0.202, T=4.111, P<0.05).

Table 8
Mediation Analysis

Path	Beta	S.E	T	P
PR → PEU → I	-0.037	0.011	3.481	0.001
FR → PEU → I	-0.065	0.017	3.84	0.000
LR → PEU → I	-0.042	0.012	3.407	0.001
SR → PEU → I	-0.037	0.012	3.167	0.002
ST → PEU → I	0.113	0.028	4.092	0.000

Hypothesis 5 argues that the perceived ease of use as a mediator influences the influence of Seamless transactions, financial risk, legal risk, security risk, and perceived risk on the intention to use financial technology. The results in Table 8 show that perceived ease of use partially mediates the influence of Seamless transactions, financial risk, legal risk, security risk, and perceived risk on the intention to use financial technology.

5. Discussion

The research found that in Middle Eastern countries, the perception of risk had a substantial negative effect on the intention to continue using financial technology. This indicates that when perceived risk increases, the inclination to continue using financial technology decreases. This finding was supported by the data shown in Table 7 and Fig. 2, which demonstrated a negative correlation between risk perception and future plans to use financial technology. Perceived risk and the likelihood of continuing to use financial technology was also investigated. The research found that for every 1% reduction in perceived risk, Middle Eastern countries' plans to continue using financial technology would increase by 22.1%. As a result, a rise in the intention to use financial technology is correlated with a decrease in the sense of danger associated with doing so. These findings are essential for financial technology firms with Middle Eastern operations. In order to increase customer loyalty and retention, they stress the importance of financial technology firms managing the risk associated with their products and services. Increasing customer support, strengthening security measures, and providing clear and transparent information are all examples of effective risk management techniques that providers of financial technologies can employ to allay consumer concerns and reduce perceived risk (Rahim, Ibrahim, 2020; Zhao, et al., 2021). By doing so, financial technology firms can raise the likelihood that their customers will continue to use their products and services, leading to higher profits and longer-term, sustainable growth (Lin & Lai, 2021). Table 7 and Figure 2 illustrate the results of a statistical study showing that there was no statistically significant relationship between financial risk and the intent to keep using financial technology. In other words, financial risk did not materially affect Middle Eastern countries' plans to keep using financial technology. Customers may continue to use financial technology even if they associate it with financial danger, according to a new study (Chen et al., 2021). Potential buyers may place a higher value on ease of use and proximity than they do on the reduced financial risk that comes with this option. Keep in mind that even if the results of this study showed that financial risk was low, that does not mean that customers in Middle Eastern countries did not care about it. Financial technology service providers should keep taking measures to protect their customers' money and build confidence. Implementing robust security measures, offering fraud protection, and providing clear and transparent information on fees and charges are all ways to do this (Liu et al., 2020; Chen et al., 2021). Financial risk was found to have a relatively minor impact on Middle Eastern consumers' plans to continue using financial technology, suggesting that other factors, such as perceived usefulness, perceived ease of use, and perceived risk, may be more influential in shaping their decisions. Action regeneration.

Legal risk was found to have a substantial and negative effect on consumers' intent to continue utilizing Fintech services in Middle Eastern countries. It's clear that customers are worried about getting in trouble if they use Fintech services in the area. It was found that for every 1% reduction in legal risk, there would be a 67% increase in consumers' propensity to continue utilizing Fintech services. This research hints that, to keep their services viable in Middle Eastern countries, Fintech firms need to pay special attention to the crucial problem of legal risk. Legal risk has a detrimental effect on future usage of Fintech services for a variety of reasons. Potential threats to customers include fraud, hacking, and the misuse of personally identifiable information. Customers may be hesitant to use Fintech services in the region due to the potential for legal repercussions and the absence of a clear regulatory framework (Maharjan et al., 2022). Fintech firms operating in the Middle East must, therefore, ensure that their products and services are compliant with applicable local rules. Additionally, fintech businesses must be forthright and honest about the measures they take to comply with laws and regulations in order to develop client confidence and trust. This will help FinTech companies avoid potential legal issues and encourage more clients to stick with them. According to the results, the fear of being hacked has a major impact on people's decisions about whether or not to continue using fintech in Middle Eastern countries. This suggests that if worries about cybercrime grow, fewer people would want to keep using financial technology. However, future adoption of fintech will increase if people view it as posing less of a threat to their personal data. The literature suggests that security worries are a major barrier to adopting and using Fintech services, therefore it stands to reason that these worries would have a detrimental effect on the desire to keep using Fintech. The results showed that the Middle Eastern countries' intent to continue using fintech would grow by 9.6% for every 1% decrease in security risk. This demonstrates that people in the Middle East are extra cautious about utilizing fintech because of security concerns. Fintech service providers should invest in establishing robust and secure systems to lower security risks and boost user confidence in the platform (Barbu et al., 2021). The study's findings suggest that Fintech service providers need to prioritize user security if they want to retain more customers in the Middle East. To achieve this goal, one must implement stringent security measures such as encryption, two-factor authentication, and constant monitoring and evaluation of security risks. Providers of financial technology services can increase user trust and confidence by addressing their clients' safety concerns. This has the potential to increase the number of people who start using their services and keep using them over time.

Frictionless transactions were found to have a large and positive effect on the Middle Eastern countries' intention to continue utilizing fintech. Customers are more likely to remain loyal to a Fintech service if the experience is straightforward and problem-free. The research showed that a 1% improvement in the speed and efficiency of transactions would lead to a 57.6% rise in the number of Middle Eastern countries planning to continue using fintech. This demonstrates that consumers will stick with a Fintech service for the long haul provided they have a positive experience with the transaction process. When referring to the ease with which customers can use fintech to conduct transactions, the term "seamless transaction" is often used. It considers factors such as how quickly transactions can be completed, how easily assistance can be obtained, how dependable the system is, and how intuitive the user interface is. If customers have a positive experience using Fintech services, they are more inclined to do it again. Consistent with previous research, this conclusion suggests that the ease of financial transactions

has a significant and positive effect on the Middle Eastern countries' plans to continue using fintech. Perceived ease of use, which includes transactional simplicity, has a significant impact on people's intentions to use fintech services, according to research by Lee and Shin (2018). This suggests the transaction process has a major impact on customers' opinions and intentions regarding Fintech services. The results show that in Middle Eastern countries, there is a substantial inverse correlation between perceived danger and perceived ease of use. That is to say, when people worry more about their finances, they rate the convenience of financial technology as lower. Consumers in Middle Eastern countries are less likely to view financial technology as easy to use if they believe a higher level of risk is associated with its use. The findings suggest that those who associate less danger with utilizing financial technology will also have a more positive experience with it. Perceived ease of usage goes up by 18.20% for every 1% uptick in perceived risk. This finding lends credence to the theory that when consumers view the degree of risk associated with using financial technology as being low, they are more likely to feel comfortable doing so. This decision has far-reaching consequences for companies providing financial technology to Middle Eastern countries. If financial technology is ever going to be considered as user-friendly, it is imperative that users feel safer when using it. The implementation of strong security measures to protect user data and clear and honest communication with consumers about the hazards associated with financial technology use are two ways to achieve this goal. The study found that the ease with which Middle Eastern countries appraised the use of fintech services was negatively affected by their perceptions of financial risk (Karim et al., 2020). This suggests that when the perceived financial risk associated with using fintech services increases, so does the perceived difficulty of using them. The results show that in Middle Eastern countries, a 32.1 percent increase in perceived usability would occur for every one percentage point increase in financial risk. This demonstrates that customers in the region place a premium on financial security while making use of fintech services, and that users' opinions of ease of use are impacted by their perceptions of security. Hypothesis H2, which states that the perceived financial risk has a negative impact on the perceived ease of use of fintech services in Middle Eastern nations, is thus supported by the data.

The results demonstrated that legal risk had a large, detrimental impact on the perceived ease of using Fintech in the region. In example, the results showed that the perception of ease of use increased by 20.8% after a 1% increase in legal risk. As a result, when users perceive a larger level of legal risk connected with adopting the technology, they are less likely to find Fintech straightforward to use. Therefore, the results supported research hypothesis H2, which hypothesized that the presence of legal risk would reduce the perceived ease of use of Fintech. The findings suggest that Fintech firms operating in Middle Eastern countries should pay attention to the legal and regulatory environment governing their activities to ensure that their clients feel comfortable and confident using their platforms. The study hypothesized 3 that the perception of the ease of using Fintech would suffer greatly in Middle Eastern countries due to security concerns. Table 7 and Figure 2 provide evidence in favor of this theory. The results showed, in particular, that the perception of Fintech's usability in Middle Eastern nations would grow by 18% for every 1% increase in security risk. A rise in the perceived ease of use and, consequently, the adoption of Fintech in the region may emerge from efforts to increase security measures and reduce security threats. According to several sources (Ventre, & Kolbe, 2020; Ferdianto, 2022; Kardi, et al., 2023), security concerns are a potential impediment to the adoption of Fintech in the region. It is crucial to note that this finding is consistent with past studies on the significance of security in the adoption of Fintech, since security issues are regularly highlighted as a key barrier to adoption in many nations and places. The ease of use of Fintech services is positively impacted, the survey finds, by the seamless transactions in Middle Eastern countries. Users will have a better favorable impression of Fintech services if they find conducting transactions with them to be uncomplicated and quick. The results showed that a gain of 55.9% in perceived usability in Middle Eastern countries occurred for every 1% increase in the perceived seamlessness of transactions. This research suggests that improved transaction efficiency can increase the likelihood that customers will stick with a service. It follows that 2, which hypothesized that positive effects of seamless transactions on perceived ease of use, was supported. The findings imply that people's perceptions of how simple financial technologies are to use have a significant role in determining whether or not they would continue to use them in Middle Eastern countries. This finding suggests that users will remain loyal to a fintech platform if they find it easy to navigate. Table 7 and Figure 2 show that a 1% increase in perceived ease of use is related to a 20.2% increase in the desire to continue using fintech in Middle Eastern nations. The more intuitive and simpler a fintech platform is to use, the more likely it is that its users will stick with it. This summary highlights the need of making financial solutions user-friendly and easy to ensure customer satisfaction and retention.

Findings indicate that the perceived ease of use has a significant negative effect on risk perception and the intent to continue using financial technology in Middle Eastern countries. In other words, people are more likely to continue using fintech if they have a positive impression of how easy it is to do so. This finding accords with the TAM's central tenet that individuals' preconceived notions of a technology's ease of use and acceptability shape their actual intents to employ that technology in their daily lives. In this case, the positive impacts of perceived ease of use on continued adoption of fintech in Middle Eastern countries are buffered by the negative consequences of perceived risk. Fintech firms serving Middle Eastern countries should prioritize making their products and services more intuitive for end users to reduce the impact of perceived risk on the likelihood that users would stick with the platforms over the long term (Chen & Aklikokou, 2020). Table 8 shows that countries in the Middle East are less likely to continue using financial technology if its perceived ease of use reduces their exposure to financial risk. This would imply that the perceived ease of use of financial technology mitigates the effect of financial risk on the intent to continue using such technology. In other words, the detrimental effect of financial risk on customers' intentions to continue using financial technology is mitigated when consumers perceive the technology to be easy to use. This finding lends credence to H12b, which states that the perceived ease of adopting financial technology in Middle Eastern countries

mitigates the correlation between financial risk and future adoption. This study suggests that in order to mitigate the negative effects of financial risk on users' inclinations to continue with a service, producers of financial technology should focus on making their offerings appear more user-friendly.

This research suggests that perceived ease of use mediates the relationship between legal risk and the intention to continue using financial technology in Middle Eastern countries. In other words, when customers become more aware of the legal danger associated with utilizing financial technology, their intent to continue using such technology decreases. However, the perceived simplicity of the technology mitigates this effect, encouraging users to persist despite the risks to their legal standing. Table 8 shows that legal risk has a significant negative indirect impact on consumers' intentions to continue using financial technology by way of consumers' perceptions of the technology's usability. This shows that familiarity with the interface mediates the connection between perceived legal risk and the inclination to continue using financial technology in Middle Eastern countries. The study by Kusyanti et al. (2022) found that the perceived ease of using financial technology considerably and negatively moderated the link between security risk and the intent to continue using the technology. This suggests that the detrimental effect of security risk on the intention to continue using financial technology was mitigated when users evaluated the technology to be easy to use. A decrease in future intent to use financial technology of 0.21 points was shown to be associated with an increase in security risk of 1. When perceived ease of use was incorporated as a mediator into the model, the correlation between security risk and the intention to keep using financial technology dropped by 53.4%. This suggests that the deleterious impact of security risk on users' intentions to keep utilizing financial technology was mitigated when users rated the technology as being easier to use. The results support the hypothesis 5d that the perceived ease of use mediates the relationship between security risk and the intention to continue using financial technology in Middle Eastern countries.

Perceived ease of use is found to be a mediator between the effect of frictionless transactions and the propensity of Middle Eastern countries to continue using financial technology. Table 8 shows that those who have more trouble than average completing financial transactions online are less likely to say they plan to keep using such services in the future. The coefficient reflecting the positive and significant effect that frictionless transactions have on consumers' plans to keep using financial technology is. Yet, the coefficient for the indirect relationship between seamless transactions and intention to continue using financial technology via perceived ease of use is also significant and negative, suggesting that the mediating role of perceived ease of use helps to explain the relationship between these two variables. Thus, the beneficial effect of error-free transactions on the propensity to continue using financial technology is slightly mitigated by the negative impact of perceived ease of use. The results corroborate hypothesis 5e, which states that in Middle Eastern countries, the perceived ease of using financial technology mediates the effect of frictionless transactions on the intention to continue using such systems.

5.1 Conclusion

The goal of the current study was to determine the mediating effect of perceived ease of use on the influence of seamless transaction, financial risk, legal risk, security risk, and perceived risk on the intention to use financial technology in Middle Eastern countries. Data for the study was collected using an online survey from a sample of 438 people utilizing a quantitative research methodology. Partial Least Squares Structural Equation Modelling (PLS-SEM) was used to examine the data. The findings revealed that the intention to use financial technology in Middle Eastern nations was significantly influenced by all independent factors, including seamless transactions, financial risk, legal risk, security risk, and perceived risk. However, the study discovered that these variables' effects on the desire to utilize financial technology were strongly moderated by perceptions of ease of use. According to the results, one of the most important variables that can affect people's intentions to utilize financial technology in Middle Eastern nations is perceived ease of use. According to the study, people are more inclined to adopt financial technology if they believe it to be easy to use. The study also discovered that the intention to use financial technology is negatively impacted by the perceived risk of doing so. As a result, it is crucial that financial institutions provide user-friendly financial technology that can lower perceived risk and raise perceived usability. The study's conclusions have important ramifications for researchers, politicians, and financial institutions. The creation of user-friendly financial technologies that can lower perceived risk and raise perceived usability must be given top priority by financial institutions. Government officials must create regulations that motivate financial organizations to create and provide user-friendly financial technology. The influence of additional factors, such as trust and privacy concerns, on the intention to utilize financial technology can be further investigated. In conclusion, this study adds to the body of literature by shedding light on the variables that affect Middle Eastern nations' intentions to embrace financial technology. In order to improve the desire to use financial technology, financial institutions should give priority to the development of user-friendly financial technology that can lower perceived risk and boost perceived usability. Researchers can further investigate the effects of other factors, such as trust and privacy concerns, on the desire to use financial technology, and policymakers must create rules that incentivize financial institutions to create and deliver user-friendly financial technology.

5.2 Theoretical Contribution

The current research makes important theoretical contributions toward understanding the factors that drive Middle Eastern nations to adopt FinTech. In particular, it examines the direct impact of seamless transactions on perceived ease of use and intention to use fintech, as well as the mediating role of perceived ease of use in the relationship between a number of risk

factors (financial, legal, security, and perceived risk). The study contributes to the literature on technology adoption by highlighting the role of perceived ease of use as a mediator between risk variables and the desire to use FinTech in Middle Eastern countries. The findings suggest that a product's perceived ease of use is crucial in offsetting the potential negative effects of risk considerations on the motivation to adopt financial technology. This confirms what other studies have found, that ease of use is a major determinant in whether or not people adopt new technologies. This research contributes to our understanding of FinTech adoption in the Middle Eastern region by illuminating the specific risks that inhibit a population's propensity to use the technology. Perceived danger, legal risk, security risk, and financial risk all reduce the likelihood of embracing FinTech, according to the studies. This finding is consistent with previous research on technology adoption, which has shown that worries about potential consequences are a major barrier to using new tools. Findings from the poll also highlight the significance of frictionless transactions in promoting the use of FinTech in Middle Eastern countries. The results demonstrate that users' perceptions of fintech's ease of use and their propensity to utilize it are positively affected by its reputation for smooth transactions. This finding underlines the need of creating a simple and straightforward FinTech platform to increase its popularity in Middle Eastern countries.

5.3 Managerial Implication

The study's findings have important managerial implications for companies in the financial technology sector in the Middle East. To begin, the research shows that users' perceptions of financial technology's ease of use play an important role in mitigating the effect of various hazards on their intentions to continue using the technology. That's why it's so important for financial tech firms to prioritize making their products and services as accessible as possible. As a result, more consumers will be willing to maintain using these services despite the risks associated with financial technology. The importance of frictionless transactions in raising the profile of financial technology services as user-friendly is also highlighted by the poll. Therefore, businesses in the financial technology sector need to prioritize providing their customers with efficient and convenient services. Blockchain, AI, and big data analytics are just a few of the cutting-edge technologies that could be employed for this purpose. Thirdly, the study shows that perceived risks, such as financial risk, legal risk, and security risk, strongly affect the intention to continue using financial technology services. Due to the sensitive nature of their customers' financial information, financial technology firms must take all necessary precautions to preserve it. The need of understanding the historical, political, and economic context of Middle Eastern countries is also emphasized. Companies working in financial technology need to consider local customs and norms while developing new products and services. To achieve this goal, one strategy is to collaborate with regional partners, hire local expertise, and do market research to learn about the wants and preferences of potential customers in the area.

5.4 Practical Contribution

This research contributes to practice by providing valuable insight into the factors that influence the likelihood that Middle Eastern countries would adopt financial technology. The results of the study can be used by policymakers, financial institutions, and technology firms to promote the use of financial technology in the region. To begin, the paper stresses the significance of user-perceived usability in promoting the widespread adoption of financial technologies. Therefore, companies should prioritize making their financial technology solutions' interfaces as straightforward and user-friendly as possible. Businesses also have a responsibility to provide customers with adequate instruction and support for the products they sell. Second, the research suggests that people will have a more positive impression of financial technology if transactions are made as painless as possible. Since this is an issue for customers, banks and IT companies should work together to develop frictionless payment systems. The third conclusion highlights the negative impact of perceived risk on the intent to utilize financial technology. Businesses should prioritize gaining their customers' trust by taking all necessary safety precautions and acting in accordance with the law. Finally, the study highlights the potential moderating role of user perception of financial technology's ease of use in overcoming the deterrent effect of financial, legal, security, and perceived dangers. Therefore, firms should prioritize making their products appear user-friendly to reduce the impact of these risks on the widespread adoption of financial technology.

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