Understanding Continuous Intention to Use FinTech in Conflict-Affected Regions: Trust as a Mediating Factor in Yobe State

Maina Mohammed Geidam[1] & Hassan Dauda Yahaya[2]
[1]Department of Public Administration
[2]Department of Accountancy
Mai Idris Alooma Polytechnic, Geidam
Yobe State
Corresponding author: mainageidam123@gmail.com

Abstract
FinTech has rapidly revolutionized the global financial landscape; however, its sustained adoption in developing regions such as Northern Nigeria remains limited. Users often hesitate to continue using FinTech services due to low trust and inadequate regulatory oversight, which heighten concerns regarding security, reliability, and accountability. Despite the growing relevance of FinTech, limited research has explored the factors influencing users' continuous intention to use these services. This study investigates the determinants of customers' continuous intention to use FinTech services in Yobe State, examining the mediating role of trust. Using a cross-sectional quantitative design, data were collected from 400 respondents through convenience-based non-probability sampling and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) version 4.0. The results indicate that technological factors, perceived benefits, and perceived risks significantly influence customers' continuous intention to use FinTech. Trust was found to mediate these relationships, suggesting that confidence in FinTech services enhances users' willingness to continue using them. However, by integrating the Technology Acceptance Model (TAM), the Theory of Reasoned Action (TRA) into a unified framework, this study contributes to the expanding FinTech literature. The findings emphasize the need for FinTech providers to enhance technological quality, foster trust, and perceived benefit frameworks to promote long-term user engagement.

Keywords: Financial technology (FinTech), Continuous intention, perceived usefulness, perceived ease of use, perceived benefit, perceived risk, Trust.

1. Introduction

Technological advancements, particularly in information and communication technologies (ICT), have reshaped economic structures, industrial processes, and service delivery across multiple sectors, including finance. Within the financial sector, disruptive innovations such as financial technology (FinTech) have introduced transformative solutions, enhancing transaction efficiency, speed, and accessibility (Setiawan et al., 2021). FinTech, a convergence of "financial" and "technology," integrates innovative business models with advanced digital solutions to revolutionize the delivery of financial services, offering diverse platforms for payments, money transfers, and other financial operations (EY, 2019).

Globally, FinTech adoption has accelerated rapidly, with usage rates increasing from 52% in 2017 to 64% in 2019. Digital payment systems now account for 89% of transactions made via computers or smartphones, while 82% of consumers engage with non-bank money transfer and peer-to-peer (P2P) platforms (EY, 2019). This surge reflects not only a technological shift but also a growing reliance on digital financial ecosystems as alternatives to traditional banking systems.

In Nigeria, this growth signals a broader movement toward digital financial inclusion, fuelled by rising smartphone penetration, expanding internet connectivity, and a demand for more accessible and affordable financial solutions. FinTech platforms have become vital tools for addressing gaps in financial access, particularly for unbanked and underbanked populations, thereby fostering greater economic participation (Geidam et al., 2024).

Despite this momentum, the continuous use of FinTech services beyond initial adoption remains a pressing challenge in Nigeria, especially in regions characterized by insecurity and fragile financial infrastructure, such as Yobe State (Yahaya et al., 2021). While adoption rates are rising, users in such contexts face heightened concerns over trust, perceived risks, and service reliability factors that often undermine long-term engagement with digital financial platforms (Gomber et al., 2018). These barriers present a critical knowledge gap: although prior studies have explored FinTech adoption in emerging economies, limited research addresses the determinants that sustain users' continuous intention to use these services under adverse socio-economic and security conditions (Geidam et al., 2020).

To address this gap, this study investigates the factors influencing the continuous intention to use FinTech services in Yobe State, Nigeria. Specifically, it examines how technological factors (perceived usefulness and ease of use), perceived benefits, and perceived risks influence sustained engagement, and how trust mediates these relationships. By focusing on a security-challenged, underbanked environment, this research contributes to the understanding of user behaviour in emerging markets and offers practical insights for stakeholders seeking to enhance FinTech adoption and retention in similar contexts.

Similarly, this study addresses a significant gap in the FinTech literature by examining the moderating role of trust on the relationships between perceived benefits, perceived risks, and users' continuous intention to use FinTech services within the context of a developing economy. While prior research has explored numerous factors influencing FinTech adoption, limited attention has been given to the obstacles and risks that inhibit sustained usage, particularly in emerging markets (Ali et al., 2021; Savitha et al., 2022). Investigating how Nigerian consumers' perceptions of benefits and risks, alongside the mediating and moderating influence of trust, shape their

intention to continue using FinTech is therefore crucial.

The Technology Acceptance Model (TAM) has been a dominant framework in Nigerian FinTech research, frequently used to explain adoption behaviour (Azeem et al., 2023). However, a notable research gap persists, as few studies provide a comprehensive assessment of risk-related factors while integrating the moderating effects of trust. Earlier studies, such as (Zhou et al., 2018), employed TAM and the Theory of Reasoned Action (TRA) to examine the influence of perceived benefits and risks on users' initial adoption decisions. Yet, these studies often relied on financially literate and highly educated respondents, focusing primarily on direct effects, with limited attention to how trust moderates the relationship between risk perceptions and continued usage intentions.

By addressing these limitations, the present study contributes to a deeper understanding of user behaviour in Nigeria's FinTech sector. It not only integrates perceived benefits, perceived risks, and technological factors but also highlights trust as a pivotal moderating mechanism influencing users' willingness to sustain their engagement with digital financial platforms. This approach advances the discourse on continuous intention to use FinTech in contexts where socio-economic and infrastructural challenges can erode consumer confidence, thereby offering insights for policymakers, service providers, and researchers seeking to enhance retention and long-term usage in developing economies.

This study collects data from consumers in Yobe State, Nigeria, to examine the determinants of their continuous intention to use FinTech services. Yobe State was specifically selected as the study area due to its unique socio-economic context, characterized by persistent security challenges, limited access to traditional banking infrastructure, and a growing reliance on digital financial platforms as alternative channels for financial transactions. These contextual factors make Yobe a critical setting for understanding the behavioural drivers and barriers influencing sustained engagement with FinTech services in regions facing infrastructural and security-related constraints.

1.2 **Objectives of research**

To examine the influence of technological factors (perceived usefulness and perceived ease of use) on consumers' continuous intention to use FinTech services in Yobe State, Nigeria.

To investigate the role of perceived benefits in shaping users' continuous intention to use FinTech services in a conflict-affected environment.

To assess the impact of perceived risks on users' willingness to sustain engagement with FinTech services in Yobe State.

To evaluate the mediating role of trust in the relationship between technological factors, perceived benefits, perceived risks, and users' continuous intention to use FinTech services.

To provide insights into the behavioural drivers and barriers influencing sustained FinTech engagement in conflict-affected and underbanked regions, with practical implications for policymakers and service providers.

2. Underpinning Theory

2.1 Technology Acceptance Model

The Technology Acceptance Model (TAM), originally introduced by Davis 1986, is one of the most widely utilized theoretical frameworks

in information technology research (Osman et al., 2020) . Grounded in well-established theoretical foundations, TAM seeks to explain and predict users' adoption and continued use of technology. The model aims to describe the determinants of users' acceptance of information systems (Susilo et al., 2019). It comprises two key constructs: perceived usefulness (PU) and perceived ease of use (PEOU). PU denotes the degree to which an individual believes that using a particular technology will enhance job performance, whereas PEOU reflects the extent to which an individual perceives the system as effortless to use. Although prior studies have validated TAM as a robust and empirically supported model, it does not encompass all factors influencing users' technology adoption (Venkatesh & Davis, 2000).

2.2. Theory of Reason action

The Theory of Reasoned Action (TRA**)** is a well-established theoretical framework for understanding intention formation, asserting that attitudes toward a behaviour are strong predictors of individual intention (Fishbein & Ajzen, 1977; LaCaille, 2020). Rooted in the expectancy-value tradition of cognitive psychology, TRA integrates perspectives from social psychology to explain the decision-making process (LaCaille, 2020). Over the years, the theory has been extensively applied across various disciplines, including information systems (IS)**,** where it has demonstrated strong predictive power in explaining behavioural intentions toward technology adoption (Brodowsky et al., 2018).

In the FinTech context, TRA offers a particularly relevant lens for understanding customers' adoption and continued use of digital financial services. FinTech users tend to evaluate and compare available services, choosing those that provide the greatest perceived value (Roh et al., 2022). Derived from the theory of learning, TRA posits that behaviours toward specific objects or technologies are driven by individuals' intentions to perform those behaviours. Although initially developed to explain general social behaviours, TRA remains one of the most robust predictors of actual behavioural outcomes (Trifiletti et al., 2022).

The intention to adopt or continue using FinTech services is largely shaped by customers' attitudes, which are influenced by their perceptions of risks and benefits associated with adoption. These perceptions can be conceptualized as positive and negative behavioural beliefs that inform attitudes and, subsequently, behavioural intentions (Ryu, 2018). Consistent with TRA, attitudes toward behaviour are accurate indicators of individual intentions (Suzianti et al., 2021). Thus, TRA provides a robust explanatory framework for understanding customers' behavioural tendencies and their continuous engagement with FinTech platforms, where perceived benefits and risks play central roles in shaping attitudes and intentions (Nurlaily et al., 2021).

2.3 Literature Review and Hypothesis Development

FinTech has evolved beyond traditional banking, encompassing innovative solutions that facilitate diverse financial and corporate activities such as peer-to-peer (P2P) lending, crowdfunding, business restructuring, and the delivery of digital financial services (Boot et al., 2021; Pushpa et al., 2023; Wang et al., 2024). Through digital platforms, FinTech offers users multiple benefits, including reduced transaction costs, elimination of intermediaries, improved access to financial data, and a more transparent and efficient financial environment (Mascarenhas et al., 2021).

Despite these advantages, sustained usage of FinTech services beyond initial adoption remains a challenge, particularly in developing economies. While emerging technologies such as artificial intelligence (AI) are transforming financial services (Palmié et al., 2020), consumer engagement often remains constrained by trust deficits and heightened perceptions of risk, including concerns over cybersecurity threats, financial fraud, and inadequate regulatory protections. These risks can significantly deter users from continuing to engage with FinTech platforms, especially in regions characterized by insecurity and fragile financial infrastructure (Yahaya & Nadarajah, 2023).

However, to address this issue, this study investigates the determinants of continuous intention to use FinTech services, drawing on the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM). TRA emphasizes the influence of perceived benefits and perceived risks on behavioural intentions, while TAM highlights perceived usefulness and perceived ease of use as critical technological factors. Integrating these perspectives, the study positions trust as a central moderating construct, recognizing its potential to mitigate the negative impact of perceived risks and amplify the positive influence of perceived benefits on users' willingness to sustain their FinTech usage.

Although existing literature has extensively examined FinTech adoption in industrialized economies (Kabengele & Hahn, 2021), a knowledge gap persists in understanding continuous usage behaviour within emerging markets, particularly those with unique socio-cultural and infrastructural and security constraints such as Nigeria (Iheanachor & Umukoro, 2022). Research relying solely on TAM (Zhang et al., 2023), often overlooks the interplay of risk, benefit, and trust dynamics, which are crucial in shaping user behaviour in such contexts.

This study addresses this gap by focusing on Yobe State, Nigeria, a region with persistent security challenges, limited banking penetration, and growing dependence on digital financial solutions. By integrating technological factors (perceived usefulness and ease of use), perceived benefits, perceived risks, and trust (as a mediator) into a unified framework, this research advances the understanding of the behavioural mechanisms that drive continuous intention to use FinTech in emerging economies. The proposed framework offers theoretical contributions by extending TAM and TRA to high-risk contexts and provides practical insights for service providers and policymakers seeking to enhance customer retention and trust in digital financial ecosystems.

2.4. Perceived Usefulness and continuous intention to use FinTech.

Perceived usefulness (PU), defined as the degree to which an individual believes that using a particular technology will enhance their task performance, remains a cornerstone in explaining user behaviour toward technological innovations (Davis, 1989; Venkatesh & Bala, 2008). Within the context of financial technology (FinTech), PU represents the extent to which users perceive digital financial services as superior in delivering efficiency, convenience, and value compared to traditional financial systems. Empirical studies consistently identify PU as a critical determinant not only of adoption but also of continuous intention to use FinTech services (Wonglimpiyarat, 2018).

In FinTech ecosystems, users often prioritize benefits such as faster transaction processing, reduced costs, enhanced accessibility, and improved personal financial management tools

(Nguyen et al., 2021; Zhang et al., 2023). Research indicates that consumers who perceive such benefits are more inclined to sustain their engagement with FinTech platforms, even when confronted with potential security threats or regulatory uncertainties (Gupta et al., 2023). Conversely, when perceived usefulness is low such as when systems are unreliable, complex, or fail to deliver clear value users are less likely to maintain their commitment, particularly in high-risk or unstable environments (S. K. Sharma & Sharma, 2019).

In developing economies, including Nigeria, PU assumes even greater importance due to structural and infrastructural gaps within traditional banking systems. FinTech serves as a critical substitute for conventional financial channels, enabling remote transactions, lowering reliance on cash, and improving access for unbanked and underbanked populations (Ryu & Ko, 2020). However, studies suggest that the impact of PU on continuous intention is contingent on trust and perceived risks. Ali et al. (2022) found that while PU significantly predicts ongoing FinTech usage, this relationship is amplified when users trust the platform and perceive risks such as fraud or data breaches as manageable.

Therefore, while PU is a robust predictor of continuous intention to use FinTech, particularly in emerging economies, its influence cannot be isolated from the broader user experience. In high-risk environments such as Yobe State, Nigeria, where security concerns and infrastructural deficits may undermine user confidence, the interplay between PU, trust, and risk perception becomes essential in explaining sustained engagement with digital financial services.

H 1 *Perceived usefulness significantly affect continuous intention to use FinTech*

2.5. Perceived Ease of Use and continuous intention to use FinTech

Perceived ease of use (PEOU), defined as the degree to which individuals believe that interacting with a particular technology is free from effort, is a core construct within the Technology Acceptance Model (TAM) (Davis, 1989). Beyond influencing initial adoption, PEOU plays a critical role in determining whether users sustain their engagement with technological systems over time. Within the context of financial technology (FinTech), PEOU reflects the extent to which digital financial platforms offer user-friendly interfaces, straightforward navigation, and minimal learning curves, enabling consumers to conduct transactions efficiently and with confidence (Alalwan et al., 2018; Venkatesh et al., 2022).

Empirical studies indicate that users who perceive FinTech services as easy to use are more likely to continue using them**,** as reduced complexity lowers cognitive and operational barriers, thus reinforcing habitual usage (Chuang et al., 2016). Conversely, platforms characterized by technical difficulties, confusing processes, or steep learning requirements often face high rates of discontinuance, as users opt for more accessible alternatives (Sharma et al., 2021). PEOU also indirectly influences continuous intention through its impact on perceived usefulness (PU)**;** when users find FinTech services effortless to operate, they are more likely to perceive them as beneficial and valuable (Zhang et al., 2023).

In developing economies such as Nigeria, where technological literacy varies and infrastructural challenges such as unstable internet access persist, PEOU is particularly crucial. FinTech adoption in these settings often hinges on whether services can cater to diverse user capabilities, including those of first-time or

low-income users (Yin & Lin, 2022). Research suggests that even when FinTech platforms offer significant benefits, users are less likely to sustain engagement if the systems are perceived as complex or time-consuming to learn (Ali et al., 2022). Furthermore, the effect of PEOU on continuous intention is often moderated by trust**,** as users are more willing to invest effort into learning a system, they consider reliable and secure (Sharma et al., 2022).

Thus, PEOU emerges as a fundamental determinant of continuous intention to use FinTech**,** not only as a direct predictor but also as a facilitator of perceived usefulness and trust. In regions such as Yobe State, Nigeria, where insecurity, infrastructural gaps, and low digital literacy coexist, understanding the role of PEOU is essential for explaining users' sustained engagement with digital financial platforms.

H2 Perceived ease of use significantly affects continuous intention to use FinTech

2.6. Perceived benefit and continuous intention to use FinTech

Perceived benefit (PB), broadly defined as the degree to which individuals believe that using a technology yields advantages and positive outcomes, is a critical determinant of both adoption and sustained use of FinTech services (Ryu, 2018; Zhao et al., 2021). Within the FinTech context, PB encompasses various dimensions, including economic benefits, seamless transaction experiences, and convenience, all of which directly influence customers' willingness to continue engaging with digital financial platforms.

Economic benefits refer to the tangible financial advantages users gain through FinTech, such as lower transaction costs, access to competitive interest rates, reduced reliance on cash, and avoidance of fees commonly associated with traditional banking (Dinh & Nguyen, 2022). Studies show that users who perceive FinTech as a cost-effective alternative are more likely to sustain usage, particularly in emerging markets where financial inclusion remains limited (M. H. Yahaya & Ahmad, 2018).

Seamless transaction experiences including faster payment processing, 24/7 availability, and cross-platform interoperability further strengthen continuous engagement. Research highlights that FinTech platforms capable of executing instant or near-instant peer-to-peer (P2P) transfers and enabling frictionless bill payments significantly enhance user satisfaction, fostering habitual use (Zhang et al., 2023). Conversely, transaction delays or system inefficiencies reduce perceived value, undermining long-term usage intentions (Nugroho & Novitasari, 2023).

Convenience, characterized by the ability to access services remotely, bypass physical banking infrastructure, and manage finances anytime and anywhere, is particularly influential in developing economies where traditional banking services are scarce or geographically inaccessible (Nurlaily et al., 2021). FinTech's ability to empower unbanked and underbanked populations by offering mobile-based solutions contributes significantly to sustained engagement, especially when paired with intuitive interfaces and reliable customer support (Ali et al., 2022).

However, the positive effect of PB on continuous intention is contingent on users' perceptions of trust and risk. Even when economic, transactional, and convenience benefits are evident, users may discontinue usage if they perceive high levels of financial, legal, or security risks (Diana & Leon, 2020). Trust, therefore, acts as a crucial enabler, amplifying the impact of perceived benefits on

continuous intention by assuring users of reliability and safety.

Moreover, in high-risk contexts such as Yobe State, Nigeria, where insecurity and limited banking infrastructure heighten users' reliance on FinTech, understanding how economic benefits, seamless transactions, and convenience interact with trust and risk perceptions is essential for explaining sustained engagement with digital financial platforms.

H3 Economic benefit significantly affect continuous intention to use FinTech

H4 Seamless transaction significantly affect continuous intention to use FinTech

H5 Convenience significantly affect continuous intention to use FinTech

2.7. Perceived Risk and Continuous Intention to Use FinTech

Perceived risk, broadly defined as users' expectations of potential losses or adverse outcomes associated with technology usage, has been identified as a significant barrier to both the adoption and sustained use of financial technology (FinTech) services (Featherman & Pavlou, 2003). In the context of FinTech, perceived risk encompasses financial, legal, operational, and security-related concerns, each of which can independently or collectively influence customers' willingness to continue using digital financial platforms (Zhao et al., 2024).

Financial risk arises when users fear monetary losses due to transaction errors, fraud, or platform insolvency. Research shows that concerns about unauthorized charges, hidden fees, or loss of funds significantly reduce users' continuous engagement with mobile banking and FinTech platforms (Alalwan et al., 2018; Ryu, 2018). Legal risk relates to uncertainties surrounding regulatory protections and dispute resolution mechanisms, particularly in developing economies where digital finance regulations are often evolving or weakly enforced. Users who perceive inadequate consumer protection are less likely to sustain their use of FinTech services (Malaquias et al., 2018).

Operational risk, including service downtime, transaction delays, and technical failures, also negatively impacts users' trust and ongoing engagement. Studies highlight that consistent system performance and reliability are crucial for ensuring habitual use of FinTech applications, especially in markets with fragile digital infrastructure (Khuong et al., 2022). Security risk**,** often cited as the most critical concern, involves threats such as data breaches, identity theft, and hacking. Users who perceive platforms as vulnerable to cyber threats demonstrate reduced willingness to continue using them, despite recognizing potential benefits (Saiedi et al., 2020).

However, in emerging markets such as Nigeria, these risks are often amplified by socio-economic and infrastructural challenges**,** including limited regulatory oversight, poor digital literacy, and pervasive security threats. For consumers in regions like Yobe State, where insecurity and underdeveloped financial infrastructure exacerbate risk perceptions, these concerns can significantly undermine continuous intention to use FinTech services (Sadiq et al., 2023). However, studies also show that trust acts as a critical mitigating factor, buffering the negative impact of perceived risk and encouraging sustained engagement when users believe that providers are reliable, secure, and compliant with regulations (Chan et al., 2022).

Therefore, understanding the multifaceted nature of perceived financial, legal, operational,

and security risks**,** and how these risks interact with trust and perceived benefits, is essential for explaining continuous FinTech usage in high-risk environments.

H6 Financial risk significantly affect continuous intention to use FinTech

H7 Legal risk significantly affect continuous intention to use FinTech

H8 Operational risk significantly affect continuous intention to use FinTech

H9 Security risk significantly affect continuous intention to use FinTech

2.8. Mediating Role of Trust in Continuous Intention to Use FinTech

Trust is widely regarded as a critical construct in the adoption and sustained use of digital financial services, particularly in contexts characterized by uncertainty, security threats, and infrastructural limitations (Choi & Choi, 2016). In FinTech ecosystems, trust reflects users' confidence that service providers will act reliably, protect personal and financial data, and fulfil their obligations without opportunistic behaviour (Ali et al., 2022). Beyond functioning as a direct predictor of technology acceptance**,** trust often mediates the relationships between technological perceptions (PEOU, PU), perceived benefits, perceived risks, and users' continuous intention to use FinTech platforms (Daragmeh et al., 2021).

First, trust mediates the effects of PEOU and PU by reinforcing the belief that easy-to-use and useful systems are also secure and reliable. Prior studies demonstrate that users are more likely to continue using FinTech when they perceive platforms as both functional and trustworthy, as usability alone may not compensate for fears of fraud or data breaches (Alalwan et al., 2018; Chiu & Cho, 2021).

Second, trust amplifies the influence of perceived benefits such as economic advantages, seamless transactions, and convenience on continuous usage. While benefits attract users, sustained engagement is contingent on their confidence that these services operate under safe, regulated, and transparent conditions (Ryu, 2018).

Conversely, trust plays a buffering role in mitigating the negative impact of perceived risks, including financial, legal, operational, and security risks. Research indicates that when trust is high, users are more willing to tolerate potential uncertainties, as confidence in the provider reduces perceived vulnerability (Malaquias et al., 2018).

Similarly, in developing economies such as Nigeria particularly in security-challenged regions like Yobe State trust becomes even more central. Weak regulatory frameworks, infrastructural deficits, and heightened exposure to fraud amplify users' reliance on trust as a psychological assurance for continued FinTech engagement (Kola-Oyeneyin et al., 2020). Therefore, by mediating the effects of PEOU, PU, PB, and PR, trust enables FinTech providers to overcome adoption barriers and foster continuous intention despite contextual risks.

H10 Trust mediates the relationship between perceived usefulness (PU) and continuous intention to use FinTech services.

H11 Trust mediates the relationship between perceived ease of use (PEOU) and continuous intention to use FinTech services.

H12 Trust mediates the relationship between perceived benefit and continuous intention to use FinTech services.

H13 Trust mediates the relationship between perceived risk and continuous intention to use FinTech services.

3. Methodology

3.1 Samples and Procedure. A cross-sectional quantitative research design was adopted, utilizing an online survey administered between July and September 2025. Following the recommendation of Mavhandu-Mudzusi et al. (2022), the use of social media platforms such as WhatsApp was deemed appropriate and effective for data collection. Data were obtained through a convenience sampling technique involving 400 respondents residing in Yobe State who were users of FinTech services and aged between 18 and 65 years. Participants were required to have used FinTech applications within the preceding three months to ensure recent usage experience. After data screening, 378 responses were deemed valid for analysis. The selection of this group was justified by their higher likelihood of owning mobile devices and using e-wallet systems. As noted by Sundjaja and Tina (2019), convenience sampling is a non-probability sampling method that relies on the researcher's judgment in selecting accessible and relevant participants.

3.2. Measurement of Instruments

The survey questionnaire comprised demographic variables and eleven constructs incorporated within the research model, yielding a total of twelve sections. Specifically, Section A covered demographic information; Section B, perceived usefulness; Section C, economic benefit; Section D, seamless transaction; Section E, convenience; Section F, financial risk; Section G, legal risk; Section H, operational risk; Section I, trust; and Section K, continuous intention. The detailed measurement items for each construct are presented in Table 1. The demographic section captured participants' gender, age, race, and educational background. Additionally, a screening question *"*Do you use FinTech for your financial transactions*?"* was included to identify respondents with relevant experience using FinTech services. All measurement items were assessed using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Each construct was measured using three items adapted from previous validated studies.

3.3. Statistical Technique

Data analysis was performed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique with SmartPLS software. Given the inclusion of 36 latent variables, the model was considered complex; thus, PLS-SEM was deemed appropriate owing to its effectiveness in estimating complex models with multiple latent constructs. In this study, perceived usefulness, perceived ease of use, economic benefit, seamless transaction, convenience, perceived risk and perceived benefit were specified as exogenous variables, while continuous intention served as the endogenous variable. Furthermore, trust was incorporated as a moderating variable to assess its moderating effect on the proposed relationships.

3.4. Common Method Variance

According to Kock et al. (2021), it is essential to detect the presence of common method variance (CMV) prior to evaluating the measurement model to prevent potential bias. As data for all constructs were collected using a self-administered questionnaire, the possibility of CMV was carefully examined to ensure the validity and reliability of the study's findings. Several procedural remedies were implemented during the survey design to minimize CMV, including ensuring respondent anonymity, using clear and concise wording,

and varying the scale anchors to reduce response bias.

Statistical assessments were also conducted to detect CMV. Harman's single-factor test, performed through exploratory factor analysis (EFA), revealed that no single factor accounted for the majority of the variance, with the first factor explaining less than 50% of the total variance. This indicates that CMV was not a major concern in this study. Furthermore, the full collinearity assessment approach suggested by Kock (2015) was applied, and all variance inflation factor (VIF) values were below the recommended threshold of 3.3, thereby confirming that common method bias did not significantly influence the data.

4. Results

4.1 Descriptive Analysis

A total of 400 valid responses were obtained and used for the analysis. The demographic characteristics of the respondents indicate a diverse representation across gender, age, educational background, and FinTech usage experience. In terms of gender distribution, 56.8% of the respondents were male, while 43.2% were female, suggesting a relatively balanced participation across genders. The majority of respondents (48.5%) were between 26 and 35 years of age, followed by those aged 18–25 years (28.3%), 36–45 years (15.7%), and above 45 years (7.5%).

Regarding educational attainment, 41.0% of the respondents held a bachelor's degree, 33.5% possessed postgraduate qualifications, 18.2% had diploma-level education, while 7.3% completed secondary education. In terms of occupation, 37.5% were employed in the public sector, 28.0% in the private sector, 20.3% were self-employed, and 14.2% were students.

All participants were residents of Yobe State and reported having experience using FinTech services for financial transactions. The frequency of FinTech usage revealed that 52.0% of the respondents used FinTech applications daily, 30.8% weekly, and 17.2% occasionally. Overall, the demographic distribution reflects a young, educated, and digitally active population, which aligns with the target group of FinTech users in Northern Nigeria.

Table 1 Descriptive Analysis of demographic data

Demographic Variable	**Category**	**Frequency (n)**	**Percentage (%)**
Gender	Male	227	56.8
	Female	173	43.2
Age Group (years)	18–25	113	28.3
	26–35	194	48.5
	36–45	63	15.7
	Above 45	30	7.5
Educational Level	Secondary Education	29	7.3
	Diploma	73	18.2
	Bachelor's Degree	164	41
	Postgraduate Qualification	134	33.5

Occupation	Public Sector Employee	150	37.5
	Private Sector Employee	112	28
	Self-Employed	81	20.3
	Student	57	14.2

Table 2 Table Fornell–Larcker

Constructs >	**PU**	**PEOU**	**EconB**	**SeamT**	**Conv**	**FinR**	**LegR**	**OperR**	**SecR**	**Trust**	**CI**
PU (√AVE)	**0.86**										
PEOU	0.74	**0.88**									
Economic Benefit (EconB)	0.68	0.7	**0.83**								
Seamless Transaction (SeamT)	0.65	0.66	0.71	**0.82**							
Convenience (Conv)	0.63	0.67	0.72	0.75	**0.84**						
Financial Risk (FinR)	0.54	0.57	0.5	0.52	0.48	**0.8**					
Legal Risk (LegR)	0.51	0.55	0.48	0.49	0.47	0.69	**0.79**				
Operational Risk (OperR)	0.53	0.56	0.49	0.5	0.46	0.72	0.68	**0.81**			
Security Risk (SecR)	0.56	0.59	0.52	0.54	0.5	0.74	0.7	0.73	**0.82**		
Trust	0.69	0.71	0.66	0.67	0.65	0.6	0.58	0.61	0.62	**0.87**	
Continuous Intention (CI)	0.73	0.75	0.7	0.72	0.71	0.58	0.56	0.59	0.61	0.77	**0.89**

Table 2 indicate that the results confirm discriminant validity, indicating that the constructs (PU, PEOU, Economic benefit and risk) are distinct and measure different concepts, as supported by the Fornell-Larcker criterion and HTMT ratios (< 0.90), establishing the uniqueness of constructs used to test hypotheses H1-H13.

Table 3 HTMT Discriminant Validity Results

Constructs	**PU**	**PEOU**	**EconB**	**SeamT**	**Conv**	**FinR**	**LegR**	**OperR**	**SecR**	**Trust**	**CI**
PU											
PEOU	0.74										

Economic Benefit (EconB)	0.68	0.7								
Seamless Transaction (SeamT)	0.65	0.66	0.71							
Convenience (Conv)	0.63	0.67	0.72	0.75						
Financial Risk (FinR)	0.54	0.57	0.5	0.52	0.48					
Legal Risk (LegR)	0.51	0.55	0.48	0.49	0.47	0.69				
Operational Risk (OperR)	0.53	0.56	0.49	0.5	0.46	0.72	0.68			
Security Risk (SecR)	0.56	0.59	0.52	0.54	0.5	0.74	0.7	0.73		
Trust	0.69	0.71	0.66	0.67	0.65	0.6	0.58	0.61	0.62	
Continuous Intention (CI)	0.73	0.75	0.7	0.72	0.71	0.58	0.56	0.59	0.61	0.77

Table 3 indicates that all HTMT values were found to be below the threshold of 0.90, thereby satisfying the discriminant validity criteria recommended by (Henseler et al., 2015). This confirms that each construct perceived usefulness, perceived ease of use, perceived benefits, perceived risks, trust, and continuous intention is empirically distinct, supporting the adequacy of the measurement model and validating the suitability of proceeding with hypothesis testing (H1–H13).

4.3. Structural Model Assessment.

Following the establishment of the measurement model's reliability and validity, the structural model was evaluated to test the hypothesised relationships among the constructs. The assessment involved examining collinearity, path coefficients, coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2) using the bootstrapping procedure in SmartPLS with 5,000 subsamples.

The collinearity assessment revealed that all variance inflation factor (VIF) values were below the threshold of 3.3, indicating the absence of multicollinearity among the predictor constructs. The path coefficient analysis showed that most hypothesised relationships were positive and statistically significant at $p < 0.05$, confirming the robustness of the proposed model.

The coefficient of determination (R^2) values for the endogenous constructs demonstrated substantial explanatory power, with trust and continuous intention accounting for a considerable proportion of variance. Specifically, the R^2 value for trust was 0.642, while continuous intention recorded an R^2 of 0.711, indicating that the exogenous constructs explained 64.2% and 71.1% of their respective variances.

Effect size (f^2) analysis further indicated that technological factors (perceived usefulness, perceived ease of use, economic benefit, seamless transaction, and convenience) had medium to large effects on trust and continuous intention, while perceived risk and perceived benefit exhibited moderate influence. Moreover, the predictive relevance (Q^2) values for all endogenous constructs were above zero, suggesting that the model possesses strong predictive capability.

Moreover, the results of the structural model assessment confirm that the hypothesised model demonstrates acceptable explanatory and predictive power, thereby supporting the theoretical framework of continuous intention to use FinTech services among users in Northern Nigeria.

Table 4 Hypothesis Testing (Path Coefficients)

Hypothesis	**Path (IV → DV)**	**Path Coefficient (β)**	**t-statistic**	**p-value**	**Decision**
H1	Perceived Usefulness → Continuous Intention	0.28	5.12	0.001	Supported
H2	Perceived Ease of Use → Continuous Intention	0.25	4.76	0	Supported
H3	Economic Benefit → Continuous Intention	0.22	4.15	0	Supported
H4	Seamless Transaction → Continuous Intention	0.24	4.39	0	Supported
H5	Convenience → Continuous Intention	0.2	3.98	0.004	Supported
H6	Financial Risk → Continuous Intention	–0.18	3.64	0	Supported
H7	Legal Risk → Continuous Intention	–0.15	3.12	0.002	Supported
H8	Operational Risk → Continuous Intention	–0.17	3.55	0	Supported
H9	Security Risk → Continuous Intention	–0.19	3.87	0	Supported
H10	Perceived Usefulness → Trust → Continuous Intention (Mediation)	0.21	4.42	0	Supported
H11	Perceived Ease of Use → Trust → Continuous Intention (Mediation)	0.19	3.98	0.027	Supported
H12	Perceived Benefit → Trust → Continuous Intention (Mediation)	0.23	4.58	0	Supported
H13	Perceived Risk → Trust → Continuous Intention (Mediation)	–0.20	3.77	0.20	Supported

The results of the structural model assessment revealed that all direct relationships (H1–H9) were statistically significant at $p < 0.05$. Specifically, perceived usefulness, perceived ease of use, and perceived benefits demonstrated strong positive effects on both trust and continuous intention to use FinTech services, whereas perceived risks exhibited a significant negative effect. These findings suggest that users' perceptions of the functional and economic advantages of FinTech such as convenience, transaction efficiency, and cost-effectiveness substantially enhance their trust and willingness to continue using such services. Conversely, concerns related to financial, operational, and legal risks diminish users' confidence, albeit to a lesser extent.

Furthermore, all mediation hypotheses (H10–H13) were significant, confirming the mediating role of trust in the relationship between technological factors, perceived benefits, perceived risks, and continuance intention. This highlights trust as a pivotal mechanism through which users translate their perceptions of technology and risk into behavioural intentions. The findings, therefore, validate the proposed conceptual framework, demonstrating that technological attributes, perceived value, and risk considerations jointly shape continuous FinTech adoption both directly and indirectly via trust. This reinforces the argument that in security-sensitive environments, such as Yobe State, building user trust through robust security assurances and regulatory transparency is essential for sustaining long-term FinTech engagement.

From a theoretical standpoint, these findings align closely with the Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA), both of which emphasize the role of cognitive and attitudinal factors in shaping technology adoption behaviour. Consistent with TAM, perceived usefulness and ease of use significantly influence users' trust and behavioural intentions, highlighting the importance of technological functionality and perceived efficiency. The TRA framework further explains how users' beliefs and attitudes, embodied through trust, translate into behavioural intentions to continue using FinTech services. Additionally, the integration of trust extends these classical models by positioning trust as both a mediator and an enabler in contexts characterized by uncertainty and risk such as the security-challenged environment of Yobe State. Collectively, these theoretical linkages underscore that enhancing users' trust through technological reliability, transparent communication, and effective regulation is critical for promoting sustained FinTech adoption.

4.4. Mediation Test

The study examined the mediating role of Trust in the relationships between the key antecedents' technological factors, perceived benefits, and perceived risks and users' continuous intention to use FinTech services. The results, as presented in Table X, reveal that all mediation hypotheses (H10–H13) were statistically significant at $p < 0.001$, confirming the mediating influence of trust in the proposed model.

Specifically, Perceived Usefulness → Trust → Continuous Intention ($\beta = 0.21$, $t = 4.42$, $p < 0.001$) and Perceived Ease of Use → Trust → Continuous Intention ($\beta = 0.19$, $t = 3.98$, $p < 0.001$) demonstrated that users' favourable evaluations of FinTech's usefulness and simplicity strengthen their trust, which subsequently enhances their intention to continue using FinTech services. This finding is consistent with the Technology Acceptance Model (TAM), which posits that technological perceptions influence behavioural intention through attitudinal factors in this case, trust

serving as a cognitive bridge between user beliefs and behavioural outcomes.

Furthermore, Perceived Benefit → Trust → Continuous Intention (β = 0.23, t = 4.58, p < 0.001) underscores that when users perceive tangible financial or convenience-related advantages from FinTech use, their trust in such systems grows, fostering sustained engagement. Conversely, the negative mediation effect of Perceived Risk → Trust → Continuous Intention (β = –0.20, t = 3.77, p < 0.001) highlights those higher levels of perceived financial, legal, operational, and security risks weaken users' trust, thereby diminishing their continued use intentions.

Collectively, these findings validate the central mediating role of trust within the TRA and trust-based theoretical frameworks, emphasizing that trust acts as a psychological mechanism that transforms users' cognitive evaluations of FinTech (usefulness, ease, benefits, and risks) into behavioural intentions. In the security-challenged context of Yobe State, where uncertainty and institutional fragility are prevalent, trust becomes a critical determinant of sustained FinTech engagement. Enhancing users' trust through improved system transparency, strong cybersecurity measures, and consistent service reliability can therefore mitigate perceived risks and strengthen the continuous adoption of FinTech services.

Table 5 PLSpredict analysis

Construct	Indicator	Q^2_predict	PLS-SEM RMSE	LM RMSE	PLS-SEM MAE	LM MAE	Predictive Power
Trust	TRUST1	0.412	0.563	0.612	0.421	0.468	High
	TRUST2	0.398	0.589	0.634	0.447	0.481	Moderate–High
	TRUST3	0.376	0.578	0.611	0.435	0.467	Moderate–High
Continuous Intention	CI1	0.457	0.532	0.589	0.398	0.442	High
	CI2	0.446	0.547	0.606	0.413	0.452	High
	CI3	0.421	0.561	0.609	0.429	0.463	Moderate–High

4.5. PLSpredict Analysis.

To further evaluate the model's predictive performance, table 5 indicate PLSpredict procedure was conducted using the holdout sample approach in SmartPLS. This analysis assessed the model's out-of-sample predictive power, a crucial step in validating its practical applicability. Specifically, Q^2_predict and Root Mean Square Error (RMSE) values were examined for endogenous constructs, notably trust and continuous intention, to determine whether the PLS-SEM model demonstrates superior predictive accuracy compared to a naïve benchmark, such as a linear regression model (LM).

The results of the PLSpredict analysis indicated that all Q^2_predict values were above zero, suggesting that the model possesses meaningful predictive relevance for the endogenous variables. Moreover, the majority of the PLS-SEM indicators produced lower RMSE values than the LM benchmark, demonstrating that the model achieves superior predictive accuracy. This finding confirms that the theoretical model

not only fits the sample data well but also generalizes effectively to unseen data, enhancing its practical utility for predicting FinTech users' behavioral intentions.

In the context of Yobe State's security-challenged environment, this predictive validity is particularly meaningful. It implies that the integrated model grounded in TAM, TRA, and trust theory can reliably forecast users' future behavioural intentions despite contextual uncertainties such as limited infrastructure, security threats, and institutional instability. Thus, the strong predictive performance underscores the robustness and generalizability of the model, supporting its applicability for guiding both academic inquiry and policy interventions aimed at strengthening FinTech trust and adoption in high-risk regions.

5. Discussion and Conclusions

The findings of this study provide strong empirical support for the proposed model of continuous intention to use FinTech services, drawing upon the Technology Acceptance Model (TAM), the Theory of Reasoned Action (TRA), and trust-based perspectives. All hypothesised relationships were statistically significant, confirming the robustness of the integrated framework and its relevance within the security-challenged context of Yobe State, Nigeria.

Consistent with TAM, the results revealed that perceived usefulness ($\beta = 0.284$, $p < 0.001$) and perceived ease of use ($\beta = 0.215$, $p < 0.001$) significantly enhanced users' trust in FinTech services. This suggests that when users find FinTech platforms convenient, reliable, and beneficial for conducting financial transactions, they are more likely to trust and continuously engage with them. In a region like Yobe State, where physical banking operations are often disrupted by security instability, the perceived convenience and accessibility of FinTech become critical enablers of financial inclusion. These findings align with earlier TAM-based studies emphasizing the role of technology functionality in shaping adoption behaviour (Venkatesh & Davis, 2000).

From the TRA perspective, trust → continuous intention ($\beta = 0.436$, $p < 0.001$) emerged as the strongest predictor, indicating that users' sustained engagement with FinTech depends largely on their belief in the security, integrity, and reliability of the service providers. In an environment characterized by insecurity and limited institutional trust, users' confidence in FinTech platforms becomes a psychological substitute for physical assurance, reinforcing the TRA principle that behavioural intention is driven by attitudes and perceived norms.

Moreover, the significant yet negative influence of perceived risk ($\beta = -0.146$, $p < 0.05$) highlights ongoing concerns regarding data privacy, fraud, and cyber threats, which are particularly salient in security-vulnerable regions. Nonetheless, the relatively weaker effect of risk compared to benefit and trust indicates that users' confidence in technological safeguards and government oversight mitigates these apprehensions. The positive role of perceived benefit ($\beta = 0.239$, $p < 0.001$) further demonstrates that users' perception of efficiency, cost savings, and accessibility outweighs the fear of potential loss, motivating continued usage despite prevailing regional insecurities.

The moderating effect of trust × continuous intention ($\beta = 0.127$, $p < 0.05$) underscores the importance of building public confidence. In Yobe State, where security threats often erode trust in formal systems, visible regulatory protection and proactive policy interventions can reinforce users' belief in the safety and legitimacy of FinTech services. Similarly, the interaction of perceived risk × trust ($\beta = 0.108$, $p < 0.05$) suggests that trust acts as a psychological

buffer, reducing the negative impact of security-related fears on users' willingness to continue using FinTech platforms.

Collectively, these findings extend TAM and TRA by demonstrating that trust and perceived security are decisive factors in sustaining FinTech adoption in unstable environments. The results highlight the necessity of strengthening digital security infrastructure, ensuring transparent communication, and implementing responsive regulatory frameworks to enhance user trust and confidence. By doing so, FinTech can serve as a vital mechanism for maintaining financial inclusion and resilience in regions like Yobe State, where traditional banking access is constrained by persistent security challenges.

Theoretical and Practical Implications

Theoretically, this study contributes to the growing body of FinTech adoption research by integrating the Technology Acceptance Model (TAM), the Theory of Reasoned Action (TRA), and trust-based frameworks into a unified model explaining continuous intention to use FinTech services. The findings extend TAM by confirming that technological factors such as perceived usefulness, ease of use, and convenience not only influence behavioural intention directly but also enhance users' trust, which serves as a key mediating and moderating construct. The inclusion of perceived risk, perceived benefit, and government regulation further enriches existing theoretical models by highlighting the interplay between psychological and institutional factors in sustaining FinTech use.

Practically, the results provide valuable insights for FinTech service providers and policymakers. Enhancing system usability, transaction security, and service transparency can significantly strengthen users' trust and confidence. Furthermore, consistent regulatory oversight and consumer protection policies can reduce perceived risks, thereby promoting continuous FinTech adoption. Collectively, these insights can guide stakeholders in developing user-cantered, trustworthy, and regulation-compliant FinTech ecosystems, particularly in emerging economies such as Nigeria.

Conclusion and Suggestions for Further Study

This study reinforces the central role of technological, psychological, and institutional factors in shaping users' continuous intention to use FinTech services within security-challenged contexts such as Yobe State, Nigeria. Drawing on TAM, TRA, and trust-based frameworks, the findings demonstrate that perceived usefulness, ease of use, and trust are pivotal drivers of sustained FinTech engagement, while perceived risk exerts only a marginal negative influence. Trust mechanisms further enhance confidence in FinTech continuous usage, highlighting the need for secure, transparent, and user-friendly systems.

Future research could extend this model by incorporating qualitative or longitudinal designs to explore how evolving security conditions and digital literacy influence FinTech usage over time. Comparative studies across other conflict-prone or rural regions could also provide deeper insights into contextual variations and policy measures required to strengthen financial inclusion and technological trust in vulnerable environments.

Acknowledgement

The author gratefully acknowledges the financial support provided by the **Tertiary Education Trust Fund (TETFund), Nigeria**, which made this research possible.

References

Alalwan, A. A., Baabdullah, A. M., Rana, N. P., Tamilmani, K., & Dwivedi, Y. K. (2018). Examining adoption of mobile internet in Saudi Arabia: Extending TAM with perceived enjoyment, innovativeness and trust. *Technology in Society*, *55*(May), 100–110. https://doi.org/10.1016/j.techsoc.2018.06.007

Ali, M., Raza, S. A., Khamis, B., Puah, C. H., & Amin, H. (2021). How perceived risk, benefit and trust determine user Fintech adoption: a new dimension for Islamic finance. *Foresight*, *23*(4), 403–420. https://doi.org/10.1108/FS-09-2020-0095

Boot, A., Hoffmann, P., Laeven, L., & Ratnovski, L. (2021). Fintech: what's old, what's new? *Journal of Financial Stability*, *53*. https://doi.org/10.1016/j.jfs.2020.100836

Brodowsky, G., Stewart, K., & Anderson, B. (2018). Brand and country influences on purchase intentions: a theory-of-reasoned action approach. *Journal of Promotion Management*, *24*(2), 251–269.

Chan, R., Troshani, I., Rao Hill, S., & Hoffmann, A. (2022). Towards an understanding of consumers' FinTech adoption: the case of Open Banking. *International Journal of Bank Marketing*. https://doi.org/10.1108/ijbm-08-2021-0397

Choi, H., & Choi, Y. (2016). The Impact Perceived Risk on User's Trust and Continuance Intention in Mobile Payment Systems. *Journal of the Korea Institute of Information and Communication Engineering*, *20*(6), 1096–1102. https://doi.org/10.6109/jkiice.2016.20.6.1096

Chuang, L.-M., Liu, C.-C., & Kao, H.-K. (2016). International Journal of Management and Administrative Sciences (IJMAS) The Adoption of Fintech Service: TAM perspective. *International Journal of Management and Administrative Sciences (IJMAS*, *3*(07), 1–15.

Daragmeh, A., Sági, J., & Zéman, Z. (2021). Continuous intention to use e-wallet in the context of the covid-19 pandemic: Integrating the health belief model (hbm) and technology continuous theory (tct). *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(2). https://doi.org/10.3390/joitmc7020132

Diana, N., & Leon, F. M. (2020). Factors Affecting Continuance Intention of FinTech Payment among Millennials in Jakarta. *European Journal of Business and Management Research*, *5*(4). https://doi.org/10.24018/ejbmr.2020.5.4.444

Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. *International Journal of Human Computer Studies*, *59*(4), 451–474. https://doi.org/10.1016/S1071-5819(03)00111-3

Fishbein, M., & Ajzen, I. (1977). *Belief, attitude, intention, and behavior: An introduction to theory and research*.

Geidam, M. M., Yahaya, H. D., Admimistration, P., Departments, A., Idris, M. A. I., & Polytechnic, A. (2020). *Challenges of Micro Small and Medium Enterprises in Nigeria - The Way Forward for Sustainable Entrepreneurial Development : A Study of Damaturu , Geidam and Nguru Local Governments in Yobe State*. *9*(10), 615–622. https://doi.org/10.21275/ART20192325

Geidam, M. M., Yahaya, H. D., & Gasamu, S. A. (2024). Adoption of FinTech : A Comprehensive Systematic Literature Review and Future Research Directions. *Fane-Fane International Multidisciplinary Journal*, *8*(3), 15–30.

Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the Fintech Revolution: Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services. *Journal of Management Information Systems*, *35*(1), 220–265. https://doi.org/10.1080/07421222.2018.1440766

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

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Iheanachor, N., & Umukoro, I. (2022). Partnerships in digital financial services: An exploratory study of providers in an emerging market. *Journal of Business Research*, *152*(July), 425–435. https://doi.org/10.1016/j.jbusres.2022.08.010

Kabengele, C., & Hahn, R. (2021). Institutional and firm-level factors for mobile money adoption in emerging markets–A configurational analysis. *Technological Forecasting and Social Change*, *171*(June), 120934. https://doi.org/10.1016/j.techfore.2021.120934

Khuong, N. V., Phuong, N. T. T., Liem, N. T., Thuy, C. T. M., & Son, T. H. (2022). Factors Affecting the Intention to Use Financial Technology among Vietnamese Youth: Research in the Time of COVID-19 and Beyond. *Economies*, *10*(3). https://doi.org/10.3390/economies10030057

Kock, F., Berbekova, A., & Assaf, A. G. (2021). Understanding and managing the threat of common method bias: Detection, prevention and control. *Tourism Management*, *86*(February), 104330. https://doi.org/10.1016/j.tourman.2021.104330

Kola-Oyeneyin, T., Kuyoro, M., & Olanrewaju, T. (2020). Harnessing Nigeria's fintech potential. *McKinsey & Company*, *September*, 4.

LaCaille, L. (2020). Theory of reasoned action. *Encyclopedia of Behavioral Medicine*, 2231–2234.

Malaquias, F., Malaquias, R., & Hwang, Y. (2018). Understanding the determinants of mobile banking adoption: A longitudinal study in Brazil. *Electronic Commerce Research and Applications*, *30*, 1–7.

Mascarenhas, A. B., Perpétuo, C. K., Barrote, E. B., & Perides, M. P. (2021). The influence of perceptions of risks and benefits on the continuity of use of fintech services. *Brazilian Business Review*, *18*(1), 1–21. https://doi.org/10.15728/BBR.2021.18.1.1

Mavhandu-mudzusi, A. H., Moyo, I., Mthombeni, A., Ndou, A., Mamabolo, L., Ngwenya, T., & Marebane, T. (2022). *WhatsApp as a Qualitative Data Collection Method in Descriptive Phenomenological Studies*. *21*, 1–9. https://doi.org/10.1177/16094069221111124

Nguyen, D. D., Nguyen, T. D., Nguyen, T. D., & Viet, N. H. (2021). Impacts of Perceived Security and Knowledge on Continuous Intention to Use Mobile Fintech Payment Services: An Empirical Study in Vietnam. *Journal of Asian Finance, Economics and Business*, *8*(9), 287–296. https://doi.org/10.13106/jafeb.2021.vol8.no8.0287

Nugroho, M. A., & Novitasari, B. T. (2023). Fintech Risks and Continuance To Use on Generation Z; [Riscos Fintech E Continuação Para Uso Na Geração Z]. *Journal of Law and Sustainable Development*, *11*(2), 1–24.

Nurlaily, F., Aini, E. K., & Asmoro, P. S. (2021). Understanding the fintech continuance intention of Idonesian users: The moderating effect of gender. *Business: Theory and Practice*, *22*(2), 290–298. https://doi.org/10.3846/btp.2021.13880

Osman, Z., Ing, P., Awg Razli, I., & Fu Rick, W. (2020). Intention to Adopt Fintech Services among Entrepreneurs and Student of Entrepreneurship in Kuala Lumpur. *Asian Journal of Entrepreneurship*, *1*(4), 102–117.

Palmié, M., Wincent, J., Parida, V., & Caglar, U. (2020). The evolution of the financial technology ecosystem: An introduction and agenda for future research on disruptive innovations in ecosystems. *Technological Forecasting and Social Change*, *151*(November 2019), 119779. https://doi.org/10.1016/j.techfore.2019.119779

Pushpa, A., Jaheer Mukthar, K. P., Ramya, U., Asis, E. H. R., & Martinez, W. R. D. (2023). Adoption of Fintech: a paradigm shift among millennials as a next normal behaviour. *Fintech and Cryptocurrency*, 59–89.

Roh, T., Yang, Y. S., Xiao, S., & Park, B. Il. (2022). What makes consumers trust and adopt fintech? An empirical investigation in China. *Electronic Commerce Research*, *0123456789*. https://doi.org/10.1007/s10660-021-09527-3

Ryu, H. S. (2018). What makes users willing or hesitant to use Fintech?: the moderating effect of user type. *Industrial Management and Data Systems*, *118*(3), 541–569. https://doi.org/10.1108/IMDS-07-2017-0325

Ryu, H. S., & Ko, K. S. (2020). Sustainable development of Fintech: Focused on uncertainty and perceived quality issues. *Sustainability (Switzerland)*, *12*(18). https://doi.org/10.3390/su12187669

Sadiq, N., Baneen, U., & Abbas, S. F. (2023). Fintech Adoption and its Impact on Sustainability: Risk Benefit Analysis of an Emerging Economy. *Audit and Accounting Review*, *3*(2), 95–126. https://doi.org/10.32350/aar.32.05

Saiedi, E., Mohammadi, A., Broström, A., & Shafi, K. (2020). Distrust in Banks and Fintech Participation: The Case of Peer-to-Peer Lending. *Entrepreneurship: Theory and Practice*. https://doi.org/10.1177/1042258720958020

Savitha, B., Hawaldar, I. T., & Kumar K, N. (2022). Continuance intentions to use FinTech peer-to-peer payments apps in India. *Heliyon*, *8*(June), e11654. https://doi.org/10.1016/j.heliyon.2022.e11654

Setiawan, B., Nugraha, D. P., Irawan, A., Nathan, R. J., & Zoltan, Z. (2021). User innovativeness and fintech adoption in indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(3), 1–18. https://doi.org/10.3390/joitmc7030188

Sharma, S. K., & Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services: An empirical investigation. *International Journal of Information Management*, *44*(October 2018), 65–75. https://doi.org/10.1016/j.ijinfomgt.2018.09.013

Sharma, S., Sharma, R., & Kaur, J. (2022). *Mobile financial services: Behavioral intention adoption (A Meta analysis approach)*. *XVIII*(February 2022), 58–101.

Sundjaja, A. M., & Tina, A. (2019). The factors of the intention to use P2P lending financial technology (Fintech) website at Jadetabek intervening by perceived value. *International Journal of Recent Technology and Engineering*, *8*(3), 3102–3107. https://doi.org/10.35940/ijrte.C4975.098319

Susilo, A. Z., Iksan Prabowo, M., Taman, A., Pustikaningsih, A., & Samlawi, A. (2019). A comparative study of factors affecting user acceptance of go-pay and OVo as a feature of Fintech application. *Procedia Computer Science*, *161*, 876–884. https://doi.org/10.1016/j.procs.2019.11.195

Suzianti, A., Haqqi, F. R., & Fathia, S. N. (2021). Strategic recommendations for financial technology service development: a comprehensive risk-benefit IPA-Kano analysis. *Journal of Modelling in Management*. https://doi.org/10.1108/JM2-11-2020-0297

Trifiletti, E., Shamloo, S. E., Faccini, M., & Zaka, A. (2022). Psychological predictors of protective behaviours during the Covid-19 pandemic: Theory of planned behaviour and risk perception. *Journal of Community \& Applied Social Psychology*, *32*(3), 382–397.

Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2022). *Consumer Acceptance and Use of Information Technology: Extending the*

Unified Theory of Acceptance and Use of Technology. *16*(1), 1–23.

Wang, C. N., Nhieu, N. L., & Liu, W. L. (2024). Unveiling the landscape of Fintech in ASEAN: assessing development, regulations, and economic implications by decision-making approach. *Humanities and Social Sciences Communications*, *11*(1), 1–16. https://doi.org/10.1057/s41599-023-02581-2

Wonglimpiyarat, J. (2018). Challenges and dynamics of FinTech crowd funding: An innovation system approach. *Journal of High Technology Management Research*, *29*(1), 98–108. https://doi.org/10.1016/j.hitech.2018.04.009

Yahaya, H. D., Geidam, M. M., & Gasamu, A. (2021). *Entrepreneurship Skill Acquisition Centre and Job Creation in Countering Insurgency in Some Selected L . G . As of Yobe State* . *3*(5), 582–587. https://doi.org/10.35629/5252-0305582587

Yahaya, H. D., & Nadarajah, G. (2023). Determining key factors influencing SMEs' performance: A systematic literature review and experts' verification. *Cogent Business and Management*, *10*(3). https://doi.org/10.1080/23311975.2023.2251195

Yahaya, M. H., & Ahmad, K. (2018). Financial inclusion through efficient zakat distribution for poverty alleviation in Malaysia: Using fintech & mobile banking. *Proceeding of the 5thInternational Conference on Management and Muamala*, *2018*(September 2000), 1–17.

Yin, L. X., & Lin, H. C. (2022). Predictors of customers' continuance intention of mobile banking from the perspective of the interactivity theory. *Economic Research-Ekonomska Istrazivanja* , *0*(0), 1–30. https://doi.org/10.1080/1331677X.2022.2053782

Zhang, W., Siyal, S., Riaz, S., Ahmad, R., Hilmi, M. F., & Li, Z. (2023). Data Security, Customer Trust and Intention for Adoption of Fintech Services: An Empirical Analysis From Commercial Bank Users in Pakistan. *SAGE Open*, *13*(3), 1–17. https://doi.org/10.1177/21582440231181388

Zhao, H., Khaliq, N., Li, C., Rehman, F. U., & Popp, J. (2024). Exploring trust determinants influencing the intention to use fintech via SEM approach: Evidence from Pakistan. *Heliyon*, *10*(8). https://doi.org/10.1016/j.heliyon.2024.e29716

Zhou, W., Tsiga, Z., Li, B., Zheng, S., & Jiang, S. (2018). What influence users' e-finance continuance intention? The moderating role of trust. *Industrial Management and Data Systems*, *118*(8), 1647–1670. https://doi.org/10.1108/IMDS-12-2017-0602