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The Impact of Behavioural Determinants on the Acceptance of Financial Technology (Fintech): A Case Study of Islamic Banks in Nigeria

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Abstract
Financial technology (FinTech) presents a transformative opportunity for Islamic banks in Nigeria to enhance financial inclusion. However, its potential remains unrealized due to significant demand-side barriers, including a lack of understanding of Islamic banking and low adoption rates. While existing research has focused on supply-side and macroeconomic factors, a critical gap exists in understanding the behavioural determinants influencing FinTech acceptance within this specific context. This study, therefore, investigates the impact of behavioural factors on the acceptance of FinTech among users of Islamic banking in Nigeria. A quantitative research design was employed, utilizing a structured questionnaire distributed to a sample of 384 staff and customers of Jaiz and Taj Banks. Data were analyzed using Structural Equation Modeling (SEM). The findings reveal that customer innovativeness and perceived ease of use are the most significant positive predictors of acceptance. Subjective norms also had a significant, though weaker, positive influence. Contrary to conventional technology adoption theories, perceived usefulness and trust were found to have no significant impact, while self-efficacy showed a negative relationship. The study concludes that acceptance is driven more by personal innovativeness and user-friendly design than by perceived utility or trust. These insights provide crucial guidance for Islamic banks and policymakers to design targeted, culturally-sensitive strategies that prioritize ease of use, leverage social influence, and cater to innovative customer segments to accelerate FinTech adoption and foster greater financial inclusion.

Keywords: Customer Innovativeness, Perceived Ease of Use Subjective Norms, Perceived Usefulness, Trust, Self-Efficacy, Financial Technology

Introduction

Globally, the financial services industry is being revolutionized by financial technology (fintech), which expands the reach of the financial sector through new tools and applications (Cao *et al*., 2021; Gupta & Agrawal, 2021) [19, 29]. In Nigeria, the rapid expansion of cellular networks has driven the growth of fintech, offering services like 'payment banks' that increase efficiency and reduce costs for rural and semi-urban customers (Mhlanga, 2021; Reddy, 2021) [58, 67]. For Islamic banks in Nigeria, which operate in a competitive landscape and serve a growing Muslim population, fintech presents a strategic opportunity to gain a competitive advantage and address the problem of financial exclusion (Apriyanti, 2018; Said *et al*., 2022) [12, 70]. The implementation of fintech in Islamic finance has indeed begun to create new banking and financial behaviours among stakeholders in Nigeria, improving financial inclusion (Ali *et al*., 2019) [8]. However, the successful adoption of these technologies is not automatic. Despite its potential, fintech has struggled to gain a firm foothold in Nigeria, partly due to its regulatory environment. More critically, a fundamental barrier exists: a significant lack of understanding of Islamic banking itself among Nigerians (Muhammad & Yakasai, 2023) [61], and over a third of Nigerian adults have never used any formal financial services (Muhammad & Khalil, 2021) [60]. This context suggests that the acceptance of fintech is not merely a technological issue but is deeply influenced by user perceptions, trust, and awareness. The literature suggests that for fintech to be effective, it requires client trust and an encompassing infrastructure.

Despite the global expansion of financial technology and its recognition by Nigerian authorities as a tool for financial inclusion, the country continues to fall short of its targets. Research by Ozili (2018) [64] identifies that demand-side obstacles including a lack of orientation, religious beliefs, insufficient awareness, and illiteracy are significant barriers alongside supply-side challenges. While fintech has attracted substantial investment and consumer acceptance, its potential remains unrealized for a significant segment of the population. Although previous studies have explored fintech in Nigeria, none have specifically investigated the behavioural factors influencing its acceptance within the context of Islamic finance. This study, therefore, aims to fill this void by analysing the impact of behavioural determinants on the acceptance of fintech offered by Islamic banks in Nigeria. It seeks to understand how factors such as religious alignment, trust, perceived ease of use, and social norms influence the adoption of digital financial services among customers of Islamic banking. By focusing on the user acceptance dimension, this research provides a crucial complement to technological and supply-side analyses, offering insights essential for designing effective, culturally-sensitive fintech strategies that can truly accelerate financial inclusion. Therefore, beyond infrastructure and regulation, the behavioural determinants of users such as their trust, perceived ease of use, and religious compatibility are likely pivotal to the acceptance of fintech services. This study aims to investigate the impact of these behavioural determinants on the acceptance of financial technology, using Islamic banks in Nigeria as a case study.

Aim and Objectives of the Study

The aim of this study is to evaluate the role of financial technology in enhancing financial inclusion through Islamic banks in Nigeria. The research objective is to: To investigate the effect of behavioural determinants on the acceptance of financial technology by the users of Islamic banking in Nigeria.

Hypothesis of the Study

The following alternative hypothesis would guide the study;
Hypothesis Ha_1: There is a significant influence between behavioral determinants and the acceptance of financial technology among users of Islamic banking in Nigeria.

Empirical Literature Review

This section assessed empirical reviews of the acceptance of financial technology among users of Islamic banking. For example, Jamaruddin and Markom (2020) [39] identified the application of fintech to the operation of Islamic banking by focusing on Islamic documentation post-COVID-19. The study utilised a qualitative research method, reviewing journals and articles, and collecting data from books and available reports, and found that fintech helped to boost Islamic financial services during the pandemic. Furthermore, Abu Karsh and Abufara (2020) [3] stated that in an atmosphere where digital technology is abundant and mobile phone usage is widespread, fintech company formations expand faster. They noted when fintech companies are present in a country and banks implement financial technology within their business model, results reveal that the profitability of traditional banks changes. However, the impact of financial technology on the banking sector's profitability was found to be statistically minimal. Similarly, Yeo and Fisher (2017) [95] examined the uptake and use of mobile financial services and their connection to consumer financial competence. The data for this study came from an online national poll (N=1,497) conducted in October 2012, and the findings revealed that perceived behavioural control, subjective standards, and perceived utility determine mobile financial service adoption. Additionally, a greater level of financial capacity was found to connect with more frequent use of mobile financial services.

Dunham (2019) [26] also used geographic information systems and spatial binary logistic regression analysis to test the hypothesis that sociodemographic characteristics and mortgage lending variables have a predictive relationship on the presence of financial desert census tracts in southeastern Pennsylvania, where check cashing outlets are more common than banks. According to a comparison of means and regression analysis, these tracts are connected with greater-than-average population densities, lower median household incomes, a higher proportion of Black and Latin residents, and higher rates of mortgage application refusal.

Wolbers (2017) [94] examined a sample of 62 developing nations, and the 3SLS regression findings suggested that the quality of infrastructure and business ecosystem has a positive effect on fintech adoption. Furthermore, the findings showed the positive influence of fintech use on financial inclusion, and financial inclusion on long-term economic development. These findings highlight the country circumstances which influence fintech adoption and how improvements in adoption affect long-term economic development.

Idrees and Ullah (2024) [37] examined consumer behaviour with regards to fintech services in the context of Pakistan and identified consumer drivers and detractors to adopting fintech. Exploring an unexamined area, it seeks to propose a conceptual framework based on the UTAUT2 model, and to extend the fintech adoption model by determining the effect of performance and effort expectancy based on educational segmentation and gaps in the adoption of fintech services in the Islamic and conventional banks of Pakistan. The authors employed a quantitative research design, and data were collected from 382 subjects in Karachi, Pakistan. Convenience sampling and random number generation were employed to minimize bias. The study sought participants' responses to a survey questionnaire of 22 items using a five-point Likert scale. The survey distinguished seven existing and one new (education level) construct from the UTAUT2 model. A rationale was provided for the sample size and research methods used which aligned with guidelines and results for empirical research in the field of behavioural sciences. As the research hypothesis postulated, the findings identified that performance expectancy, effort expectancy, social influence, and facilitating conditions were independent factors influencing behavioural intention to use fintech, although the moderating effect of education level only affected the relationship between performance expectancy and the behavioural intention to use fintech. They also found differences between Islamic and conventional banking users, and the enhancing/attenuating impacts of the constructs on behavioural intention. This research highlighted the factors that influence the behavioural intentions of users towards fintech services and the implications for promoting positive service experiences.

Hussein (2020) [36] used a case in Egypt to study the impact of financial technology on financial inclusion, and aimed to

advance theoretical knowledge on fintech and financial inclusion as well as fintech and the digital transformation of financial service systems. The study analysed data from the World Bank's 2017 Global Findex Database. These data were obtained from surveys carried out by Gallup, Inc. associated with its annual Gallup World Poll; these were conducted in 143 countries and covered almost 150,000 persons worldwide. Using randomly selected, nationally representative samples, roughly 1000 people in each economy were questioned using over 140 languages. The target population was the entire civilian, noninstitutionalized population aged 15 and above. The study found that independent variables "Have mobile money account, Mobile Subscribers and use of Internet" had a significant effect on financial inclusion as they all had a lower p-value than the significance level (alpha 0.05). Hence, the study concluded that despite substantial internet and mobile phone penetration in Egypt, the country still has the lowest rank of financial inclusion among Arab and African States.

Usman (2020) [89] examined the effect of financial technology on financial inclusion in Nigeria. The study used survey research, while the total number of automated teller machines, point-of-sale devices, and internet banking operations in Nigeria were used to represent electronic banking for the period under review. A linear regression analysis was used to analyse data, and the study found that internet banking and automated teller machines have insignificantly impacted financial inclusion, while point-of-sale devices significantly impact financial inclusion in Nigeria. Therefore, the study recommended that all the deposit money banks in Nigeria work on challenges that hinder the successful operation of automated teller machines and internet banking and strive to meet international best practice.

Senyo and Osabutey (2020) [72] examined financial inclusion through fintech innovations, and found that understanding antecedents to the use of such innovations lead to deepening financial inclusion. The study used mobile money as a type of fintech innovation, and the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), and the Prospect Theory were adopted as theoretical guides. The study conducted survey research and data were collected from 294 respondents. A partial least square structural equation modelling technique was used, and the study found that performance and effort expectancy have a significant relationship with the intention to use mobile money services. However, contrary to well-established positions, price value, hedonic motivation, social influence and perceived risk do not influence the intention and use of mobile money services.

The study by Lubis *et al*. (2019) [55] determined the effect of financial literacy and technology on financial inclusion in North Sumatra, and then identified the simultaneous impact of financial literacy and fintech on financial inclusion amongst the population. The study adopted a survey research method with 100 respondents as a sample, and utilized multiple linear regression analysis. It found that financial literacy and financial technology have a positive and significant effect on financial inclusion amongst the people of North Sumatra. Simultaneously financial literacy and technology affect financial inclusion in this society, although the most dominant variable affecting inclusion is financial literacy.

Akhter *et al*. (2019) [7] examined Islamic banking and financial inclusion based on evidence from Asian and African markets. The study was conducted due to scarce literature on the impact of Islamic banking on both the demand and supply sides of financial inclusion. Thus, the study investigated 14 middle and 14 lower-income countries from Asia and Africa between 2005 and 2014. The study utilised a random effects panel regression technique based on Hausman's specification test to analyze the data. The findings revealed that Islamic banking significantly contributes to the demand side of financial inclusion (borrowers' side or the users of bank financing). This research has important policy implications for the regulatory authorities of Muslim countries when enhancing financial inclusion.

In comparison, Ali *et al*. (2020) [9] studied an analytic network process (ANP) approach to Islamic financial inclusion determinants in Indonesia. The study used ANP to identify the determinants of inclusion by gathering expert opinions and responses from academics, regulators and practitioners. They identified the influence of supply and demand on the level of Islamic financial inclusion in Indonesia. The demand factors for Islamic financial inclusion were ranked on their level of significance, as follows: financial literacy (0.27), religious commitment (0.22), socioeconomic factor (0.19) and social influence (0.17). For supply, the primary catalysts for Islamic financial inclusion were based on the level of importance, as follows: human capital (0.32), product and services (0.24), infrastructure (0.18) and policies and regulation (0.17).

Abdu (2018) [1] examined the effect of Islamic banking and finance on financial inclusion in Sub-Sahara Africa (SSA) using Probit, Tobit and Juhn-Murphy-Pierce decomposition to develop a financial inclusion model. The World Bank's Global Financial inclusion index (Global Findex) dataset of 2015 was instrumental in conducting the study, which was found that introducing a Islamic banking and finance system in some Organisation of Islamic Cooperation (OIC) countries in SSA enhanced financial inclusion. It also revealed that households from OIC with Islamic banking and finance were more likely to be financially included than their counterparts in OIC countries without Islamic banking and finance. Other factors with an important role in determining the probability of financial inclusion in the region were age, gender, income level and level of education. Thus, they found that introducing Islamic banking and finance is necessary to encourage financial inclusion in the OIC of SSA.

Shinkafi *et al*. (2019) [75] studied financial inclusion in Islamic finance, and highlighted the determinations for inclusion by examining existing documentation. The study found that robust technology; microcredit and microfinance services; legal and regulatory commitment of the regulators and policymakers of the Islamic financial institutions; extensive public awareness of Islamic financial services and products; financial proficiency and literacy; and financial infrastructure were key drivers for financial inclusion, particularly amongst women, low-income earners and the rural poor. In comparison, Abel *et al*. (2018) [2] investigated the determinants of financial inclusion in Zimbabwe by employing the logit model. They established that age, education, financial literacy, income, and internet connectivity positively relate to financial inclusion. While the documentation required to open bank accounts and the distance to the nearest access point negatively affect financial inclusion.

Uddin *et al*. (2017) [87] also investigated the determinants of financial inclusion in Bangladesh between 2005 and 2014 by

employing generalised method of moments and a quantile regression approach. The study distinguished between the supply and demand determinants of financial inclusion, and established that the size of a bank, efficiency, and interest rates comprised the supply side, while literacy rate and age dependency ratio constituted the demand factors. Furthermore, Zins and Weill (2016) [98] explored the determinants of inclusion in Africa using the World Bank's Global Findex database of 37 African countries. The study employed the probit estimation method and found that financial inclusion was determined by gender, age and educational levels with a higher influence of education and income.

Soumare *et al*. (2016) [78] employed the Global Financial Inclusion database (Global Findex) to study the factors determining financial inclusion in Central and West Africa. They found that financial inclusion was driven by gender, education, age, income, residence area, employment status, marital status, household size and degree of trust in financial institutions. The results implied that financial inclusion was mostly affected by individual attributes in Central and West African countries, although identified some differences between the two regions. For example, gender was a significant determinant of financial inclusion in Central Africa while income was significant in West Africa.

Olaniyi and Adeoye (2016) [63] also studied the factors affecting financial inclusion in Africa between 2005 and 2014. The study employed a dynamic panel data approach to establish the determinants of and found that financial inclusion was driven by per capita income, broad money as a percentage of GDP, literacy, internet access, and Islamic banking activities. In comparison, Siddik *et al*. (2016) [76] studied the determinants of financial inclusion in Bangladesh using a multi-dimensional index. They established that a rural location, household size, and literacy rate were significant socio-geographic variables, while significant infrastructure variables for financial inclusion were paved road networks and the internet. Deposit penetration in the banking sector was also found to be a significant determinant of financial inclusion.

Nandru *et al*. (2016) [62] examined the factors that increase financial inclusion in the Pondicherry region, employing factor analysis and multiple regression methods to understand the relationship between the usage and frequency of banking services and other independent variables. They established that ease of access to bank products and the purpose of opening a bank account significantly influence the usage frequency of banking services. Haddad and Hornuf (2021) [30] investigated the impact of fintech start-ups on established financial institutions' performances and default risk. Conducted between 2005 and 2018, they used a large sample of financial institutions from 87 countries, and found a favourable relationship between fintech start-up formations and incumbent institution performances. They considered the relationship between fintech start-up formations and traditional financial institution default risk, and found that start-up formations reduce both incumbent institution stock return volatility and financial institution systemic risk exposure. Fintech start-ups were found to not only have a positive effect on the financial sector's performance, but could also improve financial stability over the status quo. According to the findings, legislators and financial supervisory authorities should closely monitor the development of fintech start-ups.

Hussein (2020) [36], on the other hand, looked at the impact of financial technology on financial inclusion in Egypt. The results revealed that all independent variables "Have mobile money account, Mobile Subscribers, and use of Internet" significantly affect financial inclusion with a 95 percent confidence level, since they all had p-values less than the significance level (alpha = 0.05). According to the survey, Egypt still has the lowest financial inclusion rate among Arab and African countries despite having strong internet and mobile phone penetration. Furthermore, Kemboi (2018) [42] investigated the relationship between financial technology and the financial performance of Kenya's 43 banks, and discovered that the adoption of mobile banking, online or internet banking, and agency banking had a beneficial impact on banks' financial performances. Thus, they recommended that banks should invest in financial technology to improve their operational efficiency and effectiveness.

Literature Gap

The provided literature establishes a clear and compelling case for the relevance of studying behavioural determinants in the acceptance of FinTech within Islamic banking, particularly in the Nigerian context. Globally, studies consistently confirm that technology adoption is not merely a function of availability but is deeply influenced by user perceptions and socio-demographic factors. Foundational research, such as that by Yeo and Fisher (2017) [95], directly identifies perceived behavioural control, subjective norms, and perceived utility as key drivers of mobile financial service adoption. This is powerfully supported by Idrees and Ullah (2024) [37], who, using the UTAUT2 model in Pakistan, found that performance expectancy, effort expectancy, social influence, and facilitating conditions are independent factors shaping behavioural intention to use FinTech. Crucially, their research highlights that these determinants can have differing impacts on users of Islamic versus conventional banks, directly justifying a focused study on the Islamic banking sector. Furthermore, a recurring theme across multiple studies in developing economies is the significant influence of individual attributes such as financial literacy, education level, age, income, and religious commitment on financial inclusion and technology adoption (Ali *et al*., 2020; Lubis *et al*., 2019; Zins & Weill, 2016) [9, 55, 98]. However, a critical gap is exposed when considering the Nigerian landscape. While studies like Usman (2020) [89] and Abdu (2018) [1] provide insights into FinTech and financial inclusion in Nigeria and Sub-Saharan Africa, they primarily focus on macroeconomic or supply-side factors. The specific behavioural drivers and barriers for customers of *Islamic banks* in Nigeria remain unexamined. This is a significant omission, as Hussein's (2020) [36] findings from Egypt demonstrate that high internet and mobile penetration does not automatically translate into high financial inclusion, suggesting that behavioural and perceptual barriers are paramount. Therefore, your proposed study is highly relevant as it synthesizes the established global understanding of behavioural models like UTAUT2 with the unique, faith-based context of Islamic finance. It moves beyond the "what" of FinTech adoption to investigate the "why" and "how" within a specific, under-researched demographic, offering actionable insights for Nigerian Islamic banks to design targeted strategies that overcome behavioural hurdles and accelerate FinTech acceptance.

Theoretical Framework

Theory of Technology Acceptance Model (TAM)

This theory was developed by Davis (1989) [23], while Davis *et al*. (1989) [24] predicted the adoption and use of technology systems. According to TAM, both perceived usefulness and the perceived ease to use affect a person's attitude towards a system. Attitudes toward using the system determine behavioural intentions, which lead to actual system use. Similarly, perceived ease of use has a direct influence on perceived usefulness. However, research may suggest that other factors will influence both perceived usefulness and perceived ease of use. The technology acceptance model defines attitudes, as people's positive or negative perceptions of their intention to adopt a system is predicted by the perceived usefulness and ease of use. Thus, TAM theory holds that ease of use can also predict perceived usefulness. Moreover, behavioural intentions to adopt a system are predicted by attitudes and perceived usefulness, and behavioural intent is then used to predict actual usage, known as system usage. Some other technology acceptance theories are well known and widely used around the world, such as Theory of Reasoned Action (TRA), TPB, and TAM; however, TAM enables an easier and faster collection of general information about an individual's views on technology use.

From a TAM meta-analysis conducted in 2006 by King and He five main constituent structures emerged namely, perceived usefulness (PU), perceived ease of use (PEU) Attitude Toward Using (ATU), Behavioral Intention to Use (BIU) and Actual System Use, this are essential determinants influencing a person's attitude and intention toward using that system (Davis, 1989; Davis *et al*., 1989) [23-24]. In this context, PU and PEU refer to the degree to which financial inclusion believes that using online reviews improves PU and the degree to which a financial system believes that doing so will be effortless (PEU). Although TAM was initially created by Davis (1989) [23] for use at an organisational level, its use and implementation at the consumer level are well documented in the literature (Ukpabi & Karjluoto, 2018) [88].

After the study by Davis (1989) [24], numerous studies in the fields of technology, marketing, hospitality, and tourism also found PU and PEU to be important determinants of users' intentions to use information technology (Venkatesh *et al*., 2012) [93]. In addition, TAM components work on various online research projects across different fields including hospitality, tourism and financial institution to study the uptake of various applications, such as e-learning (Tarhini *et al*., 2014) [84], electronic commerce (Tan & Ooi, 2018) [82], e-government services/applications (Mandari & Chong, 2018) [57], mobile tourism applications (Tan *et al*., 2017) [83], mobile museum tour systems (Kang *et al*., 2018) [40] and hotel tablet applications (Kim, 2016) [46].

Lastly, and most importantly, previous studies on the use and acceptance of online financial services using TAM found that both PU and PEU directly reduced through online reviews (Ayeh *et al*., 2013) [13] or indirectly reduced through attitudes (Ayeh *et al*., 2016; Casaló *et al*., 2011) [14, 20]. Therefore, in this study, PU and PEU are considered to be related to the intentions of financial services to use online reviews, in this case the likelihood or subjective likelihood of individual transaction to use online. As such, there is an assumption it has a positive impact (Ajzen, 1991) [6].

Perceived usefulness is defined as the extent to which a person believes that using the system will enhance his or her job performance. The easier a technology is to use, the more useful it is perceived to be, which generally encourages more positive attitudes and intentions towards the use of that technology. The perceived ease to use is defined as the degree to which a person believes that using the system will be free of mental effort. Thus, the user assesses that the system will be easy to use and require little effort.

Furthermore, TAM has undergone revisions and upgrades which has prompted the development of TAM2 (Venkatesh & Davis., 2000) [92] and TAM3 (Venkatesh & Hillol, 2008) [90]. In addition, scholars have proposed that TAM can be coupled with other theories and models, and believe that TAM is an essential and effective model for predicting the adoption of new technology within an organization (Khan *et al*., 2022) [45]. TAM3 came into existence when TAM2 was combined with the perceived ease of use determinant (Venkatesh & Fred, 2000; Venkatesh & Hillol, 2008) [90-91]. TAM3 is the latest model within the field of technology acceptance and includes social networking sites (SNS), images, job relevance, output quality, computer self-efficacy, perceived enjoyment and other factors that suggest computer anxiety and effect perceived ease of use and usefulness.

By implication, fintech (such as mobile banking, internet banking, and ATMs among other initiatives) has the capacity to facilitate financial inclusion in rural areas where the communities can struggle to access conventional banking. Fintech provides reliable banking/financial services, 24 hours a day over seven days a week at a low cost, which is useful for such populations. It can be argued that most households are in possession of mobile phones, whether smart or ordinary phones, which can offer greater access to financial transactions through the use of USSD codes or software applications. For instance, managing our accounts from our smart phone anytime, anywhere provided a range of financial uses for individuals. Digital platforms allowing customers this access is simple to implement, which can be achieved via application programming interfaces (API) on their mobiles.

Methodology

This study adopted a quantitative research design to investigate the phenomenon under consideration. A structured, perceptual, and closed-ended questionnaire was used as the sole research instrument to collect primary data. The design of the questionnaire was informed by a comprehensive review of the literature on Islamic finance, financial inclusion, and financial technology, which established the key constructs and parameters for measurement. Participants responded to statements measured on a Likert scale, and their responses were transformed into numerical data for statistical analysis.

The personal administration of surveys was selected for its efficiency and higher response rates compared to other methods such as postal or internet dissemination (Kothari, 2004) [49]. To ensure the validity and reliability of the constructs, the study applied confirmatory factor analysis (CFA). Furthermore, structural equation modelling (SEM) was employed to test the hypothesized relationships between the variables and to analyze participants' views based on the collected quantitative data.

In line with ethical research practices, the confidentiality of all study participants was maintained. Codes were used for each participant instead of names to ensure anonymity during data processing and the presentation of results (Brian, 2012) [17].

Primary data for this research was gathered firsthand from original sources, specifically staff and customers of Jaiz and Taj Banks, using a structured questionnaire as the primary data collection instrument. The questionnaire was designed with predominantly close-ended questions formatted on a five-point Likert scale to facilitate the collection of measurable, quantitative data. The decision to use a five-point scale was grounded in methodological literature, which suggests that scales with a midpoint yield more accurate results and that increasing the number of scale points does not necessarily improve reliability and can instead lead to respondent fatigue or confusion.

This study focuses on a finite population of 40,763 individuals, consisting of the combined staff and customers of Jaiz Bank and Taj Bank in Nigeria. From this population, a statistically representative sample of 384 respondents was calculated using the established method of Krejcie and Morgan (1970) [50]. The sample was proportionately stratified and allocated to ensure that both staff and customer groups from each bank were accurately represented. To select participants, a multistage sampling technique was implemented. The first stage involved a purposive selection of Nigerian states where the two banks have a operational presence. The final stage employed a non-probability convenience sampling technique to select individual respondents. This approach was deemed methodologically sound for the context, as it allowed for the efficient identification and recruitment of bank customers who were readily accessible and engaged in banking activities at the time of data collection.

Measurement of Variables and Model Development

Acceptance of Financial Technology

The acceptance of fintech amongst Islamic banks involves a comprehensive evaluation of several key indicators, tailored to ensure alignment with the principles of *Sharia* law. This assessment encompasses the analysis of usage data derived from digital banking platforms, mobile applications, and online financial services, which provides insights into the frequency and volume of transactions conducted through these *Sharia*-compliant channels (Khan, 2018) [44]. Additionally, it solicits customer feedback through surveys and interviews which serve as valuable tools in understanding customer satisfaction levels, preferences, and experiences concerning the utilisation of specific fintech services offered by Islamic banks (Ahmed & Ali, 2020) [5].

Moreover, assessing the technology adoption rates, especially in the context of mobile wallets, digital payment systems, and blockchain technology within the Islamic banking ecosystem, offers a nuanced understanding of the level of technological integration (Hassan, 2019) [33]. Furthermore, evaluating the extent to which the implemented fintech solutions adhere to the ethical and religious guidelines of *Sharia* law is crucial to ensure the compliance of technology with Islamic finance principles (Iqbal *et al*., 2021) [38]. The establishment of performance metrics, including transaction processing time, customer service responsiveness, and the accuracy of financial advice provided through AI-driven solutions, provides a holistic view of the effectiveness of fintech integration (Malik, 2017) [56]. Finally, conducting comparative analyses between traditional banking practices and the implementation of fintech enables Islamic banks to assess the tangible improvements in operational efficiency, customer experience, and the preservation of *Sharia* principles within the context of technological advancements (Hussain, 2022) [35].

Subjective Norms

According to Fishbein and Ajzen (1975) [28], a subjective norm refers to an individual's perception of social pressures that anticipate certain behaviors. This construct was originally conceptualised within the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975) [28]. Subjective norms find application in various contexts, including technology adoption, and researchers have underscored the significance of this construct (Taib *et al*., 2008; Lada *et al*., 2009; Amin *et al*., 2013) [81, 51, 10]. Taib *et al*. (2008) [81] explored the influence of subjective norms on behavioral intentions and acceptance, and found that it affects postgraduate students' acceptance of Islamic housing. Highlighting the growing market force of halal products, Lada *et al*. (2009) [51] applied TRA and found that subjective norms directly influence the attitude toward, or acceptance of, halal products. Similarly, Amin *et al*. (2013) [10] concluded that subjective norms are directly associated with the adoption of Islamic housing products.

Self-efficacy

Self-efficacy refers to an individual's self-belief in their ability to control their behaviour and is defined as "a person's judgment of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391) [15]. It is not related to the skills an individual possesses but rather to the assessment of they can do with the skills they have. In the context of this study, it is anticipated that individuals with a higher self-efficacy are more likely to accept Islamic fintech, and the impact of self-efficacy has been noted in various empirical studies. Shaikh *et al*. (2018) [73] found self-efficacy to be a significant influence on the intention to accept diminishing partnership home finance. Taylor and Todd (1995a, 1995b) [85-86] observed that both self-efficacy and resource-based facilitating conditions determine predictors of behavioral control when investigating students' intention to use a computing resource centre. Bhattacherjee (2000) [16] examined individuals' underlying motivation to accept electronic brokerage technology among e-brokerage users and found a significant effect by self-efficacy on individuals' confidence in performing the intended behaviour

Perceived Ease of Use

Similar to TAM, an individual's attitude or acceptance is a key variable measured by the Perceived Ease of Use (PEOU), which represents a version of perceived complexity. Chen *et al*. (2002) [21] proposed that complexity is the opposing construct to PEOU within the TAM framework, consequently, TAM, to some extent, underpins the foundational aspects of the Diffusion of Innovation (DOI) theory. With respect to innovation, complexity is considered to be related to usability (Sonnenwald *et al*., 2001) [77], exerting a negative impact on PEOU. Davis (1989, p.320) [23] defined PEOU as "the degree to which a person believes that using a particular system would be free from efforts". Moreover, empirical studies have confirmed the association between behavioral intention and PEOU (Amin *et al*., 2014; Ramayah *et al*., 2005; Kleijnen *et al*., 2004; Ramayah *et al*., 2003) [11, 48, 65-66]. Amin *et al*. (2014) [11] highlighted that PEOU is a motivating factor influencing individuals' decision

to participate in online *waqf* (property holding). Similarly, Chin and Ibrahim (2005) [22] discovered a relationship between the intention for e-bill payment and PEOU among students in Malaysia, while Kleijnen *et al*. (2004) [48] investigated wireless finance adoption among the Dutch, emphasising the influence of PEOU on intention. Furthermore, Ramayah *et al*. (2003) [65] demonstrated a significant relationship between PEOU and initial internet use when examining the drivers of internet use.

Perceived Usefulness

Karahanna and Straub's (1999) [41] findings suggested that, during the pre-adoption phase, both instrumental mechanisms - Perceived Usefulness (PU) or relative advantage, and non-instrumental values - influence attitudes toward acceptance. However, post-adoption, only image and instrumental values impact attitude. Although the well-known TAM is theoretically distinct from the Theory of Reasoned Action (TRA) and Diffusion of Innovation (DOI) theory, notable similarities in the core constructs exist. For instance, the relative advantage construct of DOI is often used interchangeably with PU. Moreover, Chen *et al*. (2002) [21] discovered that, on examining internet users' intention to shop online, a high degree of PU fosters a more favourable attitude toward online shopping. Similarly, in their study on the impact of trust on technology usage, Suh and Han (2002) [80] found that PU significantly influences customers' willingness to adopt internet banking, while Amin *et al*. (2014) [11] noted that PU directly affects the intentions of online *waqf* customers.

Customer Innovativeness

Rogers and Shoemaker (1983, p. 27) [69] defined consumer innovativeness (CI) as "the degree to which an individual is relatively earlier in adopting or acceptanting an innovation than other members of his system." Rogers emphasises that innovations are disseminated through communication channels over time among specific individuals within the social system. According to Steenkamp *et al*., (1999) [79] CI as the predisposition to buy new and different products and brands rather than remain with previous choices and consumption patterns. Additionally, innovative users are inclined to seek information and evidence related to product innovation, which often make them early adopters of innovative products (Rogers, 2003) [68].

However, there is limited literature on CI and Islamic fintech service adoption. Several studies highlight CI as a significant predictor (Lassar *et al*., 2005; Yi *et al*., 2006; Lee *et al*., 2007) [52-53, 96], linking CI to customers' adoption and acceptance of specific systems. For example, Lee *et al*. (2007) [53] found that customers' travel intentions could be influenced by their level of innovativeness, and similarly, the study tested how CI moderated attitudes toward search and purchase intention. Yi *et al*. (2006) [96] also discovered that CI is associated with innovation characteristics such as Perceived Usefulness (PU), perceived compatibility, and Perceived Ease of Use (PEOU). Furthermore, Agarwal and Prasad (1998) [4] extended the DOI model by introducing a new moderator, "personal innovations of information technology," which influences the relationship between compatibility and intention toward innovation. They found that CI influences a user's intention toward the World Wide Web.

Trust

Trust plays a pivotal role in the context of financial technology (fintech) services, serving as a fundamental catalyst in attracting and retaining customers. Hu *et al*. (2019) [34] emphasised the criticality of trust, highlighting its significant contribution to the customer base within the fintech industry. Trust acts as a vital psychological asset, fostering a sense of reliability and dependability in the minds of users. Kesharwani and Bisht (2012) [43] highlighted the profound impact of user trust on shaping behavioural patterns, indicating that trust can significantly influence users' decisions and actions when engaging with fintech services. Similarly, Hanafizadeh *et al*. (2014) [32] demonstrated the substantial influence of trust on customers' willingness to embrace and utilise fintech services. Their research underscored the notion that trust is not only a fundamental element in establishing customer relationships but also a key determinant driving the adoption and usage of fintech services. Consequently, fostering and maintaining trust is essential for fostering a positive environment conducive to the growth and sustainability of fintech platforms, ensuring continued customer engagement and loyalty in the dynamic landscape of digital financial services. Based on objective three of the study, the following model development was adapted and developed from the studies of (Shaikh *et al*., 2020 and Lien *et al*., 2020) [74, 54].

The functional relationship of the model is given as:

$$Y_i = (X_{i1}, X_{i2}, X_{i3}, X_{i4}, X_{i5}, X_{i6}) \quad (1)$$

The multi-variate form of the regression model is given by:

$$Y_i = \varpi_o + \varpi_i X_{i1} + \varpi_i X_{i2} + \varpi_i X_{i3} + \varpi_i X_{i4} + \varpi_i X_{i5} + \varpi_i X_{i6} + \varepsilon_i \quad (2)$$

$$AFT_i = \varpi_o + \varpi_1 SBN_i + \varpi_2 SFE_i + \varpi_3 PEU_i + \varpi_3 PUF_i + \varpi_3 CSI_i \varepsilon_i + \varpi_3 TRS_i \quad (3)$$

AFT_i= Acceptance of financial technology at a given point in time.
SBN_i = Subjective norms at a given point in time.
SFE_i Self-efficacy at a given point in time.
PEU_i= Perceived ease of use at a given point in time.
PUF_i = Perceived usefulness at a given point in time.
CSI_i= Customer innovativeness at a given point in time.
TRS_i= Trust at a given point in time.
ϖ_o= Intercepts/ autonomous variable.

$\varpi_1, \varpi_2, \varpi_3$ $\varpi_4 \varpi_5$ and ϖ_6= are parameter estimates or coefficients of independent constructs; it depicts the degree of acceleration of acceptance of financial technology by applying the independent constructs, SBN, SFE, PEU, PUF, CSI and CST.
ε_i = the error term or the amount that accounts for other possible factors which could influence Y_i and are not captured in the model.
A priori expectation $\varpi_1, \varpi_2, \varpi_3, \varpi_4, \varpi_5$ and $\varpi_6 > 0$.

Data presentation and Analysis

Descriptive Analysis

The descriptive analysis section begins with the demographic profile of the study's respondents. The descriptive statistics for the construct of the study are also presented in this section.

Demographic Description of the Respondents

The survey questionnaire requires respondents to answer six demographic questions on their gender, age group, ethnicity, marital status, employment status and educational background. In total, 328 respondents responded out of 384 questionnaires issued. This represented an 85.4% responsive rate which legitimizes the representation in the study (Moser & Kalton, 1972) [59]. This section summarises the general frequency distribution of respondents on different demographic items, as shown in Table 1.

Table 1: Profile of respondents

	Frequency	Percent	Valid percent	Cumulative percent
Gender				
Male	256	78.0	78.0	78.0
Female	72	22.0	22.0	100.0
Total	328	100.0	100.0	
Age				
Less than 20	61	18.6	18.6	18.6
20-45	125	38.1	38.1	56.7
46-60	104	31.7	31.7	88.4
60 and above	38	11.6	11.6	100.0
Total	328	100.0	100.0	
Ethnicity				
Igbo	26	7.9	7.9	7.9
Hausa Fulani	251	76.5	76.5	84.5
Yuroba	28	8.5	8.5	93.0
Others	23	7.0	7.0	100.0
Total	328	100.0	100.0	
Marital Status				
Single	98	29.9	29.9	29.9
Married	163	49.7	49.7	79.6
Divorced	67	20.4	20.4	100.0
Total	328	100.0	100.0	
Employment Status				
Employed	46	14.0	14.0	14.0
Self Employed	188	57.3	57.3	71.3
Unemployed	94	28.7	28.7	100.0
Total	328	100.0	100.0	
Educational Background				
Tertiary Institution	26	7.9	7.9	7.9
Secondary	128	39.0	39.0	47.0
Primary	85	25.9	25.9	72.9
Others (Specify)	70	21.3	21.3	94.2
None	19	5.8	5.8	100.0
Total	328	100.0	100.0	

Source: Computed from field survey data (2024)

Table 1 presents the gender distribution of the 328 survey respondents. Of these, 256 were male, representing 78% of the sample, while 72 were female or 22%. This indicates a significantly higher participation rate among males than females, and therefore a predominantly male respondent base, which is significant for understanding both the demographic makeup and context of the results. The table also presents the age distribution of the respondents categorised into four age groups: those less than 20 years old comprise 18.6% (61 individuals), those aged 20-45 make up the largest group at 38.1% (125 individuals), respondents aged 46-60 constitute 31.7% (104 individuals), and those 60 and older account for 11.6% (38 individuals). This distribution indicates that most respondents are within the 20-45 age range, followed by the 46-60 age group. The representation of younger individuals (less than 20) and older individuals (60 and older) are relatively low. Understanding this age distribution is essential for contextualizing the survey results and tailoring any interventions or recommendations on the age-related characteristics of the respondent population.

Table 1 also details the ethnic distribution of the respondents, and shows that the Hausa Fulani ethnic group constitutes the majority at 76.5% (251 individuals). The Yoruba make up 8.5% (28 individuals), and the Igbo represent 7.9% (26 individuals). Respondents classified under 'Others' account for 7.0% (23 individuals). This distribution highlights strong representation from the Hausa Fulani group, with significantly smaller proportions of Igbo, Yoruba, and other ethnicities. It is important to acknowledge this ethnic composition when interpreting the survey results and ensure that any conclusions or recommendations consider the cultural and social dynamics of the respondent population. Additionally, the table lists the marital status of the respondents, of whom 49.7% (163 individuals) are married, representing the largest group. Singles account for 29.9% (98 individuals), while 20.4% (67 individuals) are divorced. This distribution shows that nearly half of the respondents are married, with a significant portion single and a smaller yet notable percentage divorced. It is crucial to note the marital status distribution in the analysis of the survey results, as this can influence respondents' perspectives and experiences.

Furthermore, Table 1 presents the employment status and the majority, 57.3% (188 individuals) are self-employed. Those who are unemployed constitute 28.7% (94 individuals), while 14.0% (46 individuals) are employed. This distribution indicates the prevalence of self-employment among the respondents, with a considerable portion classed as unemployed and a smaller portion in formal employment. Employment status distribution is crucial for contextualizing the survey results, as it can significantly impact respondents' economic conditions, lifestyle, and perspectives. The table also outlines the educational background of respondents. The largest group, 39.0% (128 individuals), had secondary education, while those with primary education accounted for 25.9% (85 individuals). Respondents with other unspecified types of education comprised 21.3% (70 individuals), while 7.9% (26 individuals) had tertiary education. Additionally, 5.8% (19 individuals) had no formal education. This distribution shows the predominance of individuals with secondary education, followed by primary education, and a notable portion with various other educational backgrounds. Understanding the distribution of respondents' educational backgrounds is essential for interpreting the survey results, as education level can influence knowledge, skills, and attitudes.

Results of the Exploratory Factor Analysis

This section discusses the results of the Exploratory Factor Analysis (EFA) which was conducted to assess the suitability of the instruments used in the study (Table 2).

Table 21: KMO and Bartlett's Test

Acceptance of Financial Technology		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.693
Bartlett's Test of Sphericity	Approx. Chi-Square	411.882
	Df	6
	Sig	0.000
Subjective norms		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.649
Bartlett's Test of Sphericity	Approx. Chi-Square	311.746
	Df	6
	Sig	0.000
Self-efficacy		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.783
Bartlett's Test of Sphericity	3200.246	465.384
	15	6
	0.000	0.000
Perceived ease of use		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.794
Bartlett's Test of Sphericity	Approx. Chi-Square	618.576
	Df	6
	Sig	0.000
Perceived usefulness		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.742
Bartlett's Test of Sphericity	Approx. Chi-Square	356.225
	Df	6
	Sig	0.000
Customer innovativeness		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.784
Bartlett's Test of Sphericity	Approx. Chi-Square	464.039
	Df	6
	Sig	0.000
Trust		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.815
Bartlett's Test of Sphericity	Approx. Chi-Square	548.196
	Df	6
	Sig	0.000

Source: Computed from field survey data (2024)

Table 2 presents the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity for several constructs related to the acceptance of financial technology. These statistical tests assess the suitability of the data for factor analysis and the findings are outlines as follows:

- **Acceptance of Financial Technology:** The KMO measure is 0.693, which falls within the acceptable range, indicating moderate sampling adequacy. Bartlett's Test of Sphericity shows an approximate Chi-Square value of 411.882 with six degrees of freedom and a significance level (Sig.) of 0.000. This indicates that the correlations between variables are large enough for the factor analysis, as the test is statistically significant.
- **Subjective Norms**: The KMO measure is 0.649, which is slightly lower but still acceptable, indicating moderate sampling adequacy. Bartlett's Test of Sphericity shows an approximate Chi-Square value of 311.746 with six degrees of freedom and a significance level of 0.000. This signifies the correlations between variables are adequate for the factor analysis, as the test is statistically significant.
- **Self-Efficacy:** The KMO measure is 0.783, indicating good sampling adequacy. Bartlett's Test of Sphericity for this construct shows a Chi-Square value of 3200.246 with 15 degrees of freedom and a significance level of 0.000, suggesting the data are highly suitable for the factor analysis due to strong correlations among the variables.
- **Perceived Ease of Use:** The KMO measure is 0.794, indicating good sampling adequacy. Bartlett's Test of Sphericity yields a Chi-Square value of 618.576 with six degrees of freedom and a significance level of 0.000. This indicates the data are suitable for the factor analysis, as the correlations among the variables are significant.
- **Perceived Usefulness:** The KMO measure is 0.742, showing good sampling adequacy. Bartlett's Test of Sphericity produces a Chi-Square value of 356.225 with six degrees of freedom and a significance level of 0.000, indicating the data are appropriate for the factor analysis due to significant correlations among the variables.
- **Customer Innovativeness:** The KMO measure is 0.784, indicating good sampling adequacy. Bartlett's Test of Sphericity yields a Chi-Square value of 464.039 with six degrees of freedom and a significance level of 0.000, suggesting the data are suitable for the factor analysis due to significant correlations among the variables.
- **Trust:** The KMO measure is 0.815, indicating very good sampling adequacy, the highest among the constructs listed. Bartlett's Test of Sphericity shows a Chi-Square value of 548.196 with 6 degrees of freedom and a significance level of 0.000. This result strongly suggests that the data is highly suitable for the factor analysis, with significant correlations among variables.

In summary, the KMO measures for all constructs range from acceptable to very good, indicating that the sample size is adequate for the factor analysis. Results for Bartlett's Test of Sphericity are highly significant for all constructs, confirming that the correlations between variables are sufficient to proceed with factor analysis. A KMO value close to 1.0 and a significance value close to 0.0 for Bartlett's Test indicate that the data are adequate to proceed with a confirmatory factor analysis (Hair *et al*., 2006; Zainudin, 2014) [31, 97].

Reliability Test

The results indicate that the Cronbach's Alpha reliability coefficients for all constructs are all above 0.6. Generally, Sekaran (2006) [71] stated that reliabilities of less than 0.6 are considered poor, those around 0.7 are deemed acceptable, those above 0.8 are good. However, the closer the coefficient is to 1.0, the more reliable the outcome. Table 3 indicates that the internal consistency reliability of the variables used in this study is considered good or excellent.

Table 3: Results of the Reliability Statistics for the Study Variables

Construct	Items in Construct	Cronbach's Alpha
Acceptance of Financial Technology	4	0.779
Subjective Norms	4	0.706
Self-Efficacy	4	0.811
Perceived Ease of Use	4	0.855
Perceived Usefulness	4	0.759
Customer Innovativeness	4	0.821
Trust	4	0.848

Source: Computed from field survey data (2024)

Confirmatory Factor Analysis: Uni-dimensionality, Reliability and Validity of the Measurement Model

The main objective of this study is to utilise Structural Equation Modelling (SEM) to examine the effect of the determinant factors of Islamic ethics on Islamic business ethics. Before proceeding with the SEM analysis, the exploratory data analysis and reliability tests were conducted, as explained in sections 7.1 and 7.2, to ensure the data fulfilled the requirements for an SEM analysis. The measures of overall fit were examined considering four indices. Then, the parameter estimates were examined to ensure they are in the right direction and of reasonable size. Next, the latent factor correlations were inspected, and then the factor determinacies were examined. Finally, standardized residuals were examined to determine whether there were any aspects of the model that did not adequately fit the data (Dilalla, 2000; Emmoglu, 2011) [25, 27]. The tested measurement model is presented in Table 1.

Measurement Model

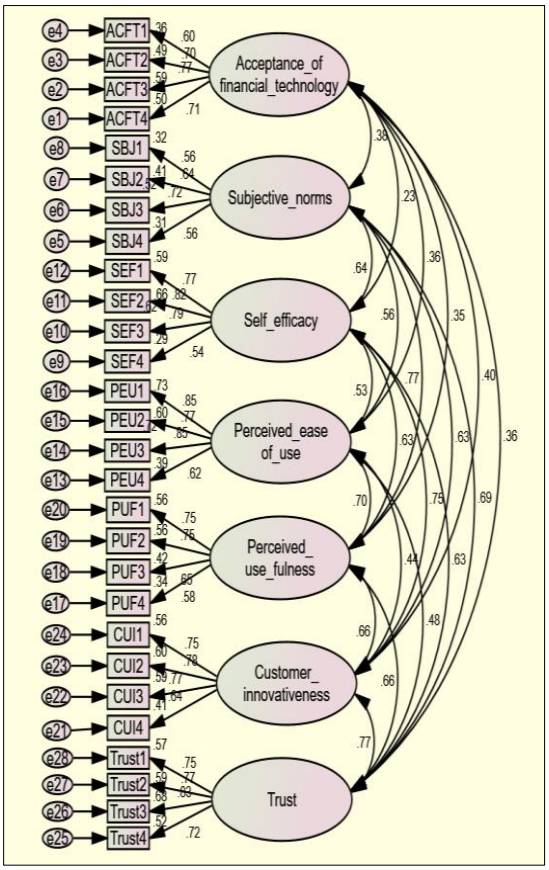

Fig 1: Confirmatory Factor Analyses (Measurement Model)

Table 4: Item Descriptions and Deletions

Item Label	Factor Loading	R^2
ACFT4	0.71	0.504
ACFT3	0.766	0.587
ACFT2	0.698	0.488
ACFT1	0.6	0.36
SBJ4	0.556	0.309
SBJ3	0.722	0.522
SBJ2	0.639	0.409
SBJ1	0.600	0.319
SEF4	0.536	0.288
SEF3	0.786	0.617
SEF2	0.815	0.665
SEF1	0.769	0.591
PEU4	0.621	0.385
PEU3	0.851	0.724
PEU2	0.774	0.599
PEU1	0.852	0.726
PUF4	0.600	0.335
PUF3	0.648	0.42
PUF2	0.751	0.564
PUF1	0.748	0.559
CUI4	0.641	0.41
CUI3	0.768	0.589
CUI2	0.775	0.601
CUI1	0.75	0.562
Trust4	0.723	0.522
Trust3	0.825	0.681
Trust2	0.769	0.592
Trust1	0.753	0.567

Source: Computed from field survey data (2024)

The CFA results in Table 4 show the seven constructs, namely: Acceptance of financial technology, subjective norms, self-efficacy, perceived ease of use, perceived usefulness, customer innovativeness and trust (shown in Table 1). Table 4 shows the factor loading for each item together with its R^2. All factor loadings are above the recommended value of 0.60, except for SEF4 which has a value of 0.536 and needs to be deleted before proceeding to the next analysis.

Table 5: Fitness Indexes for the Measurement Model

Name of Category	Name of Index	Index Value	Comments
Absolute Fit	RMSEA	0.084	The Required Level is Achieved
	GFI	0.808	The Required Level is not Achieved
Incremental Fit	CFI	0.837	The Required Level is not Achieved
Parsimonious Fit	Chisq/df	3.296	The Required Level is Achieved

Source: Computed from field survey data (2024)

The CFA result confirms that the model was not accepted for further analysis. The values indicate that the fitness indexes for the constructs (i.e., GFI and CFI) do not achieve the required level and the proposed model does not adequately fit the data. In general, the result of the assessment of the measurement model did not show solid evidence of uni-dimensionality, convergent validity, and discriminant validity. Therefore, to achieve the fitness indexes of the measurement model, modifications need to be conducted to the model whereby any factor loading with less than 0.60 needs to be deleted (Bryne, 2012) to achieve a fit model and proceed to the next stage. The new modified model is presented in Figure 2.

New Measurement Model

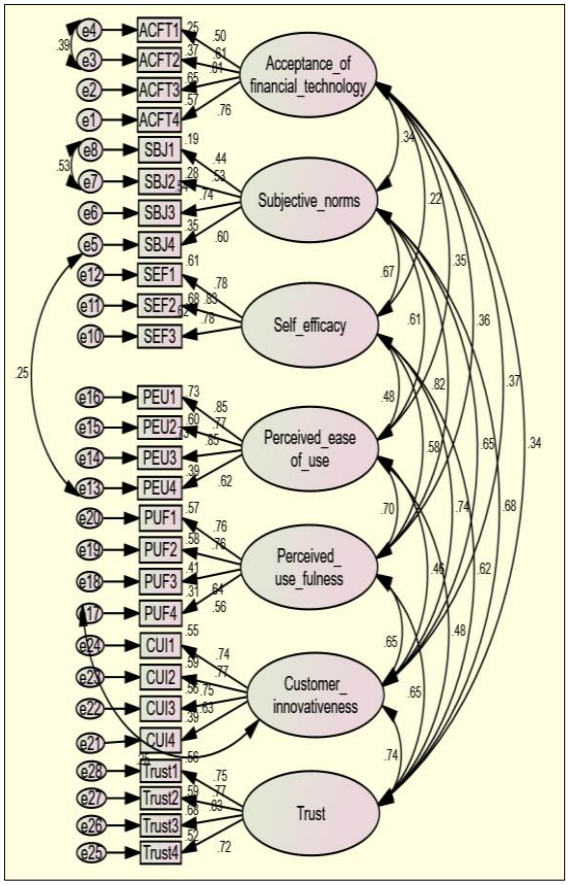

Fig 2: New Factor Loading after the Deletion of Two Items with Low Factor Loadings (New Measurement Model).

Table 6: Item Descriptions after Deletion

Item Label	Factor Loading	R^2
ACFT4	0.757	0.573
ACFT3	0.806	0.65
ACFT2	0.609	0.371
ACFT1	0.495	0.245
SBJ4	0.595	0.355
SBJ3	0.736	0.542
SBJ2	0.525	0.276
SBJ1	0.438	0.192
SEF3	0.785	0.616
SEF2	0.827	0.684
SEF1	0.781	0.609
PEU4	0.621	0.386
PEU3	0.853	0.727
PEU2	0.772	0.596
PEU1	0.853	0.727
PUF4	0.555	0.308
PUF3	0.644	0.414
PUF2	0.763	0.582
PUF1	0.757	0.573
CUI4	0.627	0.393
CUI3	0.746	0.556
CUI2	0.769	0.592
CUI1	0.745	0.554
Trust4	0.723	0.522
Trust3	0.827	0.685
Trust2	0.771	0.594
Trust1	0.749	0.561

Source: Computed from field survey data (2024)
Note: All items met the recommended value.

Table 7: New Fitness Indices for the Maesurement Model

Name of Category	Name of Index	Index Value	Comments
Absolute Fit	RMSEA	0.068	The Required Level is Achieved
	GFI	0.900	The Required Level is Achieved
Incremental Fit	CFI	0.901	The Required Level is Achieved
Parsimonious Fit	Chisq/df	2.531	The Required Level is Achieved

Source: Computed from field survey data (2024)
Note: The fitness index has improved after the modification to the measurement model.

According to Figure 2 and Table 7, the CFA results shows that the RMSEA = 0.068, GFI = 0.900. CFI = 0.901, and Chisq/df = 2.531. The fitness indices, as shown in Table 22, indicate that the measurement model has a satisfactory fit to the data and the results for all fit indexes yield an adequate fit. In general, the assessment of the measurement model shows solid evidence of uni-dimensionality, construct validity, reliability and discriminant validity. Certainly, the model is fit and hence further analysis is possible.

Table 8: Measurement Model Results for Each Construct (After Modification)

Construct	Items	Factor Loading	C.R. (Above0.60)	AVE (Above0.50)
Acceptance	ACFT4	0.757	0.767	0.500
	ACFT3	0.806		
	ACFT2	0.609		
	ACFT1	0.495		
Subjective Norms	SBJ4	0.595	0.666	0.500
	SBJ3	0.736		
	SBJ2	0.525		
	SBJ1	0.438		
Self-efficacy	SEF3	0.785	0.840	0.637
	SEF2	0.827		
	SEF1	0.781		
Perceived Ease of Use	PEU4	0.621	0.860	0.609
	PEU3	0.853		
	PEU2	0.772		
	PEU1	0.853		
Perceived Usefulness	PUF4	0.555	0.777	0.501
	PUF3	0.644		
	PUF2	0.763		
	PUF1	0.757		
Customer Innovativeness	CUI4	0.627	0.814	0.524
	CUI3	0.746		
	CUI2	0.769		
	CUI1	0.745		
Trust	Trust4	0.723	0.852	0.591
	Trust3	0.827		
	Trust2	0.771		
	Trust1	0.749		

Source: Computed from field survey data (2024)

Based on its composite reliability and average variance, the model has sufficient measurement properties for each single factor model (as shown in Table 8). Therefore, according to the results in Table 8, the model is fit for further analysis, and the missing items are deleted due to low factor loading and redundancy.

Assessment of Normality for the Data

After the fitness indexes are achieved, there is a need to examine the normality assessment for the data before proceeding to model the structural model. Table 24 presents the normality assessment for every item involved in the measurement model.

Table 9: Assessment of the Normality Distribution for Items in the Construct

Assessment of Normality (Group number 1)						
Variable	**min**	**max**	**skew**	**c.r.**	**Kurtosis**	**c.r.**
Trust1	1	5	-1.266	-9.363	2.066	7.637
Trust2	1	5	-1.23	-9.091	1.882	6.958
Trust3	1	5	-1.145	-8.467	1.216	4.494
Trust4	1	5	-1.197	-8.85	0.988	3.652
CUI1	2	5	-0.888	-6.567	0.15	0.555
CUI2	1	5	-1.255	-9.279	2.078	7.683
CUI3	1	5	-1.283	-9.483	1.935	7.155
CUI4	1	5	-1.014	-7.498	0.831	3.072
PUF1	1	5	-1.292	-9.553	2.144	7.926
PUF2	1	5	-1.235	-9.128	1.962	7.253

PUF3	1	5	-1.214	-8.975	1.329	4.914
PUF4	1	5	-1.161	-8.582	1.044	3.86
PEU1	1	5	-1.353	-10.007	2.864	10.587
PEU2	1	5	-0.916	-6.772	1.02	3.769
PEU3	1	5	-1.069	-7.905	2.206	8.157
PEU4	1	5	-1.21	-8.947	2.48	9.167
SEF1	1	5	-0.934	-6.909	0.924	3.417
SEF2	1	5	-0.697	-5.153	0.177	0.656
SEF3	1	5	-1.26	-9.319	2.072	7.658
SBJ1	1	5	-1.041	-7.694	1.238	4.577
SBJ2	1	5	-1.067	-7.893	1.653	6.11
SBJ3	1	5	-0.993	-7.344	1.631	6.03
SBJ4	1	5	-1.089	-8.049	2.093	7.737
ACFT1	1	5	-0.659	-4.876	-0.419	-1.55
ACFT2	1	5	-0.614	-4.541	0.151	0.558
ACFT3	1	5	-0.982	-7.264	1.239	4.581
ACFT4	1	5	-1.078	-7.969	1.289	4.766
Multivariate					357.216	81.741

Source: Computed from field survey data (2024)

From Table 9, the result indicates that the results meet the recommended value of -2 to +2 (Skewness) and -3 to +3 (Kurtosis). This shows that the data used in this study were normally distributed, and that normality was achieved. Therefore, the data is suitable for further analysis in the Structural Equation Modelling (SEM)/Structural Model.

Structural Model

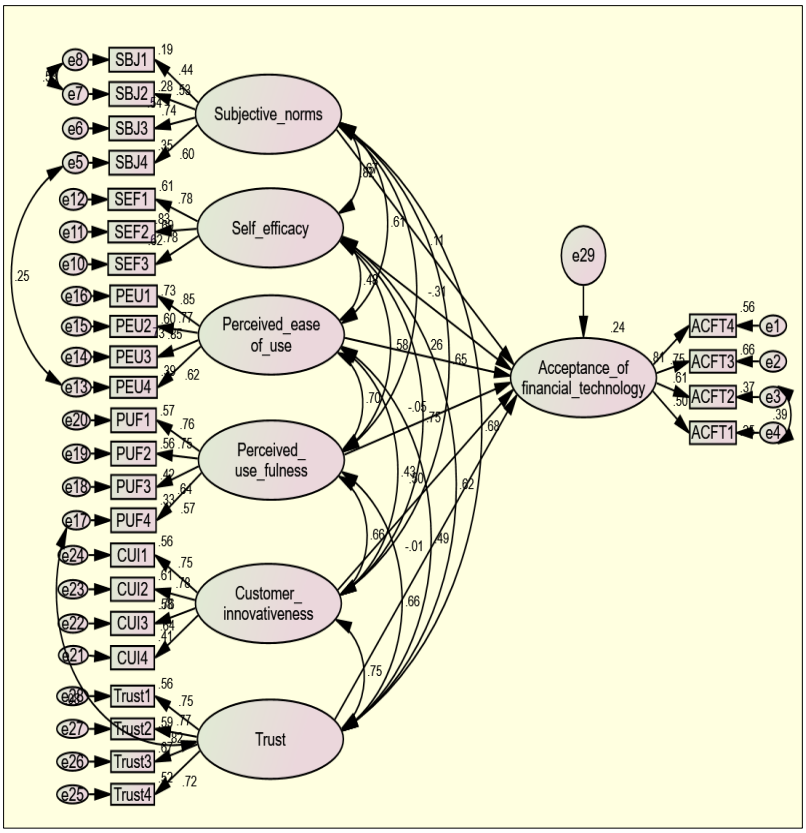

Fig 3: Standardized Estimate for Every Path in the Structural Model.

Table 102: Standardized Path Coefficients for the Model

Dependent Construct	Path	Independent Constructs	Estimate
Subjective Norms	--->	Acceptance of financial technology	0.106
Self-efficacy	--->	Acceptance of financial technology	-0.312
Perceived Ease of Use	--->	Acceptance of financial technology	0.26
Perceived Usefulness	--->	Acceptance of financial technology	-0.051
Customer Innovativeness	--->	Acceptance of financial technology	0.499
Trust	--->	Acceptance of financial technology	-0.01

Source: Computed from field survey data (2024)

Table 10 details the path estimates of various independent constructs on the dependent construct, 'acceptance of financial technology', indicating the direction and strength of these relationships.

- **Subjective Norms to Acceptance of Financial Technology:** The path estimate from subjective norms to acceptance of financial technology is 0.106. This suggests a positive and weak relationship between the subjective norms and the acceptance of financial technology. In other words, when individuals perceive that important others believe they should use financial technology, it slightly increases their likelihood of accepting and using it.
- **Self-Efficacy to Acceptance of Financial Technology:** The path estimate from self-efficacy to acceptance of financial technology is -0.312. This indicates a negative relationship between self-efficacy and the acceptance of financial technology. This counterintuitive result suggests that individuals with higher self-efficacy, or confidence in their own ability to use technology, might be less likely to accept financial technology, possibly due to overconfidence in alternative methods or skepticism towards new technologies.
- **Perceived Ease of Use to Acceptance of Financial Technology:** The path estimate from perceived ease of use to acceptance of financial technology is 0.26. This indicates a moderate positive relationship, suggesting that the easier individuals perceive the financial technology to use, the more likely they are to accept and adopt it. It thus highlights the importance of user-friendly design in promoting the acceptance of financial technology.
- **Perceived Usefulness to Acceptance of Financial Technology:** The path estimate from perceived usefulness to acceptance of financial technology is -0.051. This slightly negative relationship suggests that perceived usefulness alone is not a strong driver of acceptance of financial technology in this study. This could imply that other factors, such as ease of use or social influences, play a more critical role in acceptance.
- **Customer Innovativeness to Acceptance of Financial Technology:** The path estimate from customer innovativeness to acceptance of financial technology is 0.499, indicating a strong positive relationship. This suggests that individuals who are more innovative and open to new experiences are significantly more likely to accept and adopt financial technology. It also highlights the role of personal traits in the acceptance process.
- **Trust to Acceptance of Financial Technology**: The path estimate from trust to acceptance of financial technology is -0.01. This very weak negative relationship suggests that trust does not have a significant impact on the acceptance of financial technology in this context. This could indicate that other factors overshadow the role of trust, or that trust in financial technology is not a major concern for the respondents in this study.

In summary, customer innovativeness and perceived ease of use are strong positive predictors of the acceptance of financial technology, indicating that both personal openness to new experiences and the ease with which technology can be used are crucial for acceptance. As such, the subjective norms have a weak positive impact. Self-efficacy shows a negative relationship, suggesting overconfidence might reduce acceptance, while perceived usefulness and trust show negligible or negative relationships, suggesting they are less influential in this context.

Table 11: Correlation Estimate for Each Pair of Exogenous Constructs

Constructs	Path	Constructs	Estimate correlation
Subjective Norms	<-->	Self-Efficacy	0.669
Subjective Norms	<-->	Perceived Ease of Use	0.607
Subjective Norms	<-->	Perceived Usefulness	0.725
Subjective Norms	<-->	Customer Innovativeness	0.652
Subjective Norms	<-->	Trust	0.684
Self-Efficacy	<-->	Perceived Ease of Use	0.475
Self-Efficacy	<-->	Perceived Usefulness	0.581
Self-Efficacy	<-->	Customer Innovativeness	0.752
Self-Efficacy	<-->	Trust	0.617
Perceived Ease of Use	<-->	Perceived Usefulness	0.696
Perceived Ease of Use	<-->	Customer Innovativeness	0.434
Perceived Ease of Use	<-->	Trust	0.486
Perceived Usefulness	<-->	Customer Innovativeness	0.661
Perceived Use Fulness	<-->	Trust	0.657
Customer Innovativeness	<-->	Trust	0.754

Source: Computed from field survey data (2024)

The results in Table 11 present the estimated correlations between various constructs related to user behaviour and technology acceptance. Subjective norms, which refer to the perceived social pressure to perform or not perform a behaviour, are strongly correlated with perceived usefulness (0.725), indicating that social influences significantly affect how useful individuals perceive a technology to be. Similarly, subjective norms show substantial correlations with trust (0.684), self-efficacy (0.669), customer innovativeness (0.652), and perceived ease of use (0.607), suggesting that social pressures also influence users' confidence, innovative tendencies, and perceptions of ease of use and trust in technology.

Self-efficacy, or the belief in one's ability to succeed in specific situations, is most strongly correlated with customer innovativeness (0.752), implying that individuals who believe in their capabilities are more likely to adopt new technologies. It also has notable correlations with trust (0.617), perceived usefulness (0.581), and perceived ease of use (0.475). Furthermore, perceived ease of use and perceived usefulness are also interrelated, with a significant correlation of 0.696, indicating that technologies perceived as

easy to use are often seen as more useful. Perceived ease of use also correlates with trust (0.486) and customer innovativeness (0.434), although to a lesser extent.
Furthermore, perceived usefulness is closely linked with customer innovativeness (0.661) and trust (0.657), underscoring that usefulness is a critical factor for innovative users and for establishing trust. Lastly, customer innovativeness and trust have a strong correlation of 0.754, suggesting that innovative customers are likely to trust new technologies. The results in Table 27 show an acceptable correlation between the constructs below 0.85.

Table 12: Squared Multiple Correlation (R^2)

Variable	Estimate (R^2)
Acceptance of Financial Technology	0.2

Source: Computed from field survey data (2024)

The results of the squared multiple correlations in Table 12 indicate that the predictors of acceptance of financial technology explain 24 percent of its variance. In other words, the error variance of acceptance of financial technology is approximately 76 percent.

Regression Weights for the Model

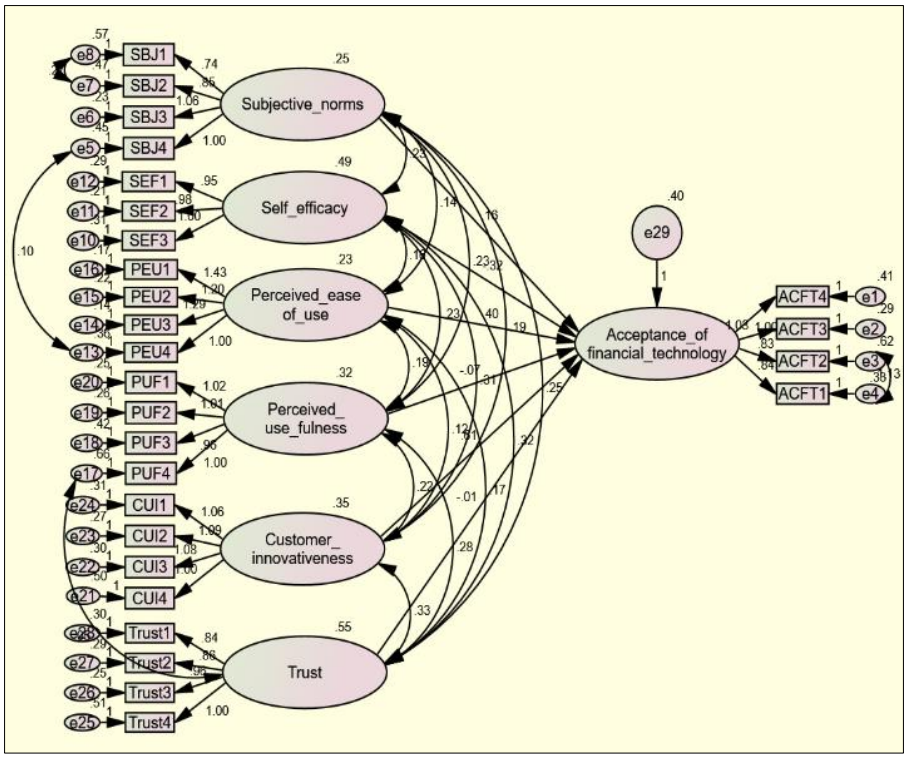

Fig 4: Regression Weights for the Model

The regression weight indicates the estimate of the beta coefficient that measures the effects of every exogenous construct on the endogenous construct.

Table 13: Regression Weights for Every Path Estimate and its Significance

Hypothesized Path			Estimate	P-Value	Result
Subjective Norms	--->	Acceptance	0.156	0.026	Significant
Self-Efficacy	--->	Acceptance	-0.325	0.626	Not Significant
Perceived Ease of Use	--->	Acceptance	0.398	0.014	Significant
Perceived Usefulness	--->	Acceptance	-0.066	0.805	Not Significant
Customer Innovativeness	--->	Acceptance	0.61	0.004	Significant
Trust	--->	Acceptance	-0.01	0.937	Not Significant

Source: Computed from field survey data (2024)

Table 13 presents the path (arrow) and its coefficient, which indicate the effects of every exogenous construct on the respective endogenous construct. To achieve the objective of this study three hypotheses were developed which are interpreted and analysed below:

Testing of the Hypotheses
Subjective Norms and Acceptance of Technology
Table 13 summarizes the results of the hypothesis test examining the influence of various factors on the acceptance of technology or behaviour. Subjective norms, which reflect social pressures, have a positive and significant effect on acceptance, with an estimate of 0.156 and a p-value of 0.026. This suggests that social influences are slightly influence acceptance of financial technology, as the relationship is statistically significant. Therefore, the null hypothesis was rejected as subjective norms significantly influence the acceptance of financial technology in Islamic banks in

Nigeria. This finding is consistent with previous results by Senyo & Osabutey (2020) [72]; Lubis *et al*., (2019) [55]; Hussein (2020) [36]; Jamaruddin & Markom (2020) [39]; Akhter *et al*. (2019) [7]; and Hussein (2020) [36].

Self-efficacy and the Acceptance of Technology

Self-efficacy, or the belief in one's capabilities, shows a negative and significant relationship with acceptance, with an estimate of -0.325 and a p-value of 0.626. This unexpected result indicates that greater self-efficacy might be associated with lower acceptance, and is a statistically significant finding. Therefore, the null hypothesis failed to be rejected meaning that self-efficacy does not significantly influence the acceptance of financial technology in Islamic banks of Nigeria. This finding is contrary with previous results by Senyo & Osabutey (2020) [72]; Lubis *et al*., (2019); Hussein (2020) [36]; Jamaruddin & Markom (2020) [39]; Akhter *et al*. (2019) [7]; and Hussein (2020) [36].

Perceived Ease of Use and Acceptance of Technology

The perceived ease of use significantly and positively impacts acceptance, with an estimate of 0.398 and a p-value of 0.014. This indicates that technologies perceived as easy to use are more likely to be accepted by users. Therefore, the null hypothesis was rejected, signifying that the perceived ease of use significantly influences the acceptance of the financial technology of the Nigerian Islamic banks. This finding is consistent with previous results by Senyo & Osabutey (2020) [72]; Lubis *et al*., (2019) [55]; Hussein (2020) [36]; Jamaruddin & Markom (2020) [39]; Akhter *et al*. (2019) [7]; and Hussein (2020) [36].

Perceived Usefulness and Acceptance of Technology

Perceived usefulness, although often considered crucial for acceptance, shows a non-significant negative effect on acceptance, with an estimate of -0.066 and a p-value of 0.805. This implies that the perceived usefulness of the technology does not significantly predict its acceptance in this context. Therefore, the null hypothesis failed to be rejected and hence, perceived usefulness does not significantly influence the acceptance of the financial technology of Islamic banks in Nigeria. This finding is contrary to previous results by Senyo & Osabutey (2020) [72]; Lubis *et al*., (2019) [55]; Hussein (2020) [36]; Jamaruddin & Markom (2020) [39]; Akhter *et al*. (2019) [7]; and Hussein (2020) [36].

Customer Innovativeness and Acceptance of Technology

Customer innovativeness, or the tendency to adopt new ideas and technologies, has a strong positive and significant effect on acceptance, with an estimate of 0.61 and a p-value of 0.004. This indicates that more innovative customers are more likely to accept technology. Therefore, the null hypothesis was rejected meaning that customer innovativeness significantly influences the acceptance of financial technology of Islamic banks in Nigeria. This finding is consistent with previous results by Senyo & Osabutey (2020) [72]; Lubis *et al*., (2019) [55]; Hussein (2020) [36]; Jamaruddin & Markom (2020) [39]; Akhter *et al*. (2019) [7]; and Hussein (2020) [36].

Trust and Acceptance of Technology

Trust has a negligible and non-significant impact on acceptance, with an estimate of -0.01 and a p-value of 0.937. This suggests that trust in the technology does not play a significant role in its acceptance in this study. Therefore, the null hypothesis failed to be rejected indicating that trust does not significantly influence the acceptance of the financial technology of Islamic banks in Nigeria. This finding contrasts with those of previous results by Senyo & Osabutey (2020) [72]; Lubis *et al*., (2019) [55]; Hussein (2020) [36]; Jamaruddin & Markom (2020) [39]; Akhter *et al*. (2019) [7]; and Hussein (2020) [36].

The subsequent standardized regression model was generated:

$$ACFT_i = f(SBJ_i, SEF_i, PEU_i, PUF_i, CUI_i, TRUST_i) \quad (1)$$

$$ACFT_i = 0.156SBJ-0.325SEF+0.398PEU-0.066PUF+0.61CUI-0.01TRUST \quad (2)$$

Where $R^2 = 0.24$

Summary of Findings

The findings from the hypothesis tests provide key insights into the factors influencing the acceptance of fintech amongst users of Islamic banking in Nigeria. Firstly, subjective norms were found to have a significant and positive impact on fintech acceptance. This indicates that social influences and peer pressure play a role in shaping users' willingness to adopt financial technology, which aligns with findings from previous studies. Conversely, self-efficacy demonstrated an unexpected negative and non-significant relationship with fintech acceptance. This suggests that users who have greater confidence in their ability to use technology may not necessarily be more inclined to adopt fintech, which contradicts findings in existing literature.

The results further confirm that perceived ease of use significantly and positively affects fintech acceptance. Users are more likely to adopt technology when they find it simple and accessible. However, perceived usefulness, which is often a crucial determinant of technology acceptance, did not show a significant effect in this study. This suggests that users may not prioritise usefulness as a key factor when deciding to adopt fintech in Islamic banking. Additionally, customer innovativeness emerged as a strong and significant factor influencing fintech acceptance. More innovative users are more willing to embrace new technologies, reinforcing the importance of user adaptability in driving digital transformation. On the other hand, trust was found to have no significant influence on fintech acceptance in Islamic banking. This challenges conventional expectations, as trust is often considered a critical element in technology adoption, particularly in the financial sector.

Overall, these findings highlight the complex nature of fintech acceptance among Islamic banking users in Nigeria. While factors like social influence, ease of use, and innovativeness drive adoption, trust, self-efficacy, and perceived usefulness appear to be less significant. These insights provide valuable implications for policymakers, financial institutions, and fintech developers seeking to enhance digital banking solutions within the framework of Islamic finance.

Recommendation

Based on the findings regarding the behavioural drivers of FinTech acceptance, the following recommendations are proposed to improve user adoption:

1. Promote Financial and Technological Literacy with a

Focus on Ease of Use Given the strong influence of Perceived Ease of Use, Islamic banks and FinTech firms must design customer education programs that demystify technology. Initiatives should focus on hands-on training, simple user guides, and demo videos that clearly show how easy it is to use their digital platforms. Marketing campaigns should highlight simplicity and user-friendliness as key value propositions.

2. Leverage Social Influence and Target Customer Innovativeness Since Subjective Norms and Customer Innovativeness are significant positive determinants, marketing strategies should be tailored accordingly. Islamic banks should use testimonials from respected community leaders and influencers to build social proof. Furthermore, they should identify and target "innovator" and "early adopter" customer segments with exclusive previews of new features, leveraging their influence to spur wider acceptance through social networks.
3. Strengthen Data Privacy and Security Measures to Build Trust Although Trust was not a significant predictor in this study, its foundational role in financial services necessitates proactive measures. Islamic banks must implement and visibly communicate their robust data protection and cybersecurity protocols. Transparent privacy policies and educational campaigns on how customer data is protected in accordance with Islamic ethical principles can help build the trust necessary for long-term adoption.
4. Re-evaluate Marketing Messaging on Usefulness The non-significant relationship with Perceived Usefulness suggests that current messaging may not be effectively communicating the practical benefits of FinTech. Islamic banks should conduct further research to understand what customers truly value and reframe their marketing to highlight specific, relatable benefits that solve everyday problems, such as saving time, reducing cost, or providing convenient access to Shariah-compliant products.
5. Encourage User-Centric Fintech Solutions for Specific Segments FinTech solutions should be designed with a deep understanding of specific user segments, such as SMEs, youth, and women. For the highly innovative segments, offering advanced features is key. For other segments, focusing on ultra-simple, single-purpose apps that address a primary need (e.g., bill payments) can drive initial acceptance and pave the way for broader adoption.

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