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Factors Influencing Consumers' Adoption of Mobile Financial Technology (FinTech) Services in Calabar, Nigeria

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Abstract

This research explored the primary factors driving consumer adoption of mobile financial technology (FinTech) services in Calabar, Nigeria. Anchored in the key constructs of the Unified Theory of Acceptance and Use of Technology (UTAUT)—including performance expectancy, effort expectancy, social influence, and facilitating conditions—the study aimed to assess their influences on the acceptance of mobile FinTech solutions. Employing a cross-sectional survey design, structured questionnaires were used to collect primary data from 357 individuals utilizing mobile FinTech services in Calabar. The gathered data underwent analysis through descriptive statistics, while multiple linear regression in SPSS 26 was employed to test the proposed hypotheses. The results indicated that all four UTAUT constructs—performance expectancy, effort expectancy, social influence, and facilitating conditions—had a significant and positive effect on the adoption of mobile FinTech services within the study area. Based on these findings, the study suggested that mobile FinTech service providers should focus on meeting customer expectations by ensuring reliable transaction processes, implementing advanced security measures such as encryption, offering round-the-clock customer support, ensuring timely transactions, maintaining transparent fee structures, and integrating diverse banking services to create a seamless user experience. These measures can enhance trust and satisfaction among users. Additionally, the study recommended that providers prioritize user-friendly features, such as easy software installation and updates, simplified registration processes, intuitive interfaces, straightforward account management, minimal learning curves, and efficient notification systems, to ensure a smooth and hassle-free experience for users. Other recommendations were also provided to further improve mobile FinTech service adoption and user engagement.

Keywords: UTAUT, Technology Adoption, FinTech, Mobile Banking, Financial Services.

Introduction

Successful introduction of new consumer technologies occurs when there is widespread adoption and utilization of such technologies by consumers for whom they were developed. Consumers' adoption of technology entails the process by which consumers integrate new technological products into their lives, utilizing them for various purposes such as communication, entertainment, productivity, or convenience (Abd Ghani *et al.*, 2017; Mishra & Varshney, 2024). This adoption process involves becoming aware of the technology, evaluating its benefits, overcoming any barriers or resistance, and ultimately

incorporating it into daily routines or practices (Shareef *et al.*, 2018). In the context of financial technology (FinTech) services, consumer adoption is critical because it creates the platform for consumers to interface with these technologies and experience their utility, thereby promoting market penetration for FinTech companies (Utami *et al.*, 2021; Akinwale & Kyari, 2022). Achieving full-scale market penetration in a large, heterogeneous market like Nigeria has been a major challenge for business-to-consumer FinTech companies due to the lack of consumer trust, insufficient physical presence, cybersecurity concerns, low digital literacy, inadequate mobile technological infrastructure, among others (Ediagbonya & Tioluwani, 2023; Mishra & Varshney, 2024)

This entails that the adoption and usage of mobile FinTech services in Nigeria are influenced by a multifaceted set of factors, making their investigation a complex and demanding task. To address this intricacy, the theoretical foundation of this study is UTAUT, originally proposed by Venkatesh et al. (2003). This framework has gained widespread recognition and has been extensively utilized across different industries to examine technology adoption (Barrane et al., 2018; Rahi et al., 2018; Venkatesh, 2022). According to UTAUT, the acceptance and implementation of technology are shaped by four interrelated constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003; Venkatesh, 2022; Mishra & Varshney, 2024). These dimensions are believed to work synergistically, collectively influencing consumers' intentions and their actual engagement with technology.

For example, Andrews et al. (2021) asserted that performance expectancy and effort expectancy are interconnected due to their joint impact on users' perceptions and behavioral intentions regarding technology adoption. This connection arises because when individuals perceive a technology as both advantageous in improving efficiency and simple to use, they are more inclined to develop favorable attitudes toward it and exhibit a stronger willingness to adopt it. Similarly, Sarfaraz (2017) highlighted that the crucial relationship between social influence and facilitating conditions stems from their combined role in shaping individuals' perceptions and behaviors toward technology. This is because social influence plays a pivotal role in forming initial attitudes and intentions toward adopting technology, whereas facilitating conditions determine whether these intentions translate into actual usage. Consequently, a supportive social environment, along with favorable facilitating conditions, fosters an ideal setting for technology acceptance and utilization (Dwivedi, 2019; Mishra & Varshney, 2024). Given the UTAUT model's widely-acknowledged predictive capability in existing research, this study employed it to investigate the determinants influencing consumers' adoption of mobile FinTech services in Calabar, Nigeria.

Research rationale

The swift expansion and promising potential of mobile FinTech services in Nigeria have led to a surge in research exploring the critical determinants of their adoption, primarily within the UTAUT framework (Ezenwafor et al., 2022; Ebizie et al., 2022; Chike & Ogba, 2023;

Ojiaku et al., 2024; Bashir & Muhammad, 2023). However, existing research presents mixed and inconclusive findings. While some studies affirm that UTAUT constructs effectively predict consumer adoption of FinTech services (Ezenwafor et al., 2022), others contend that specific factors such as social influence, performance expectancy, and facilitating conditions have minimal or no significant effect on adoption rates in Nigeria (Ebizie et al., 2022; Chike & Ogba, 2023; Ojiaku et al., 2024; Bashir & Muhammad, 2023). This lack of consensus underscores a crucial research gap with substantial implications for FinTech firms operating in the country. Without a clear understanding of the enablers and barriers to adoption, these companies risk inefficient resource allocation, misdirected market segmentation, and failure to address critical challenges hindering the widespread use of their services.

Additionally, the inconsistencies and contradictions in prior research suggest that FinTech providers in Nigeria may struggle to pinpoint the exact factors influencing consumer adoption, thereby limiting their capacity to enhance product offerings and optimize marketing strategies. This ambiguity highlights the necessity for an in-depth examination of the determinants of mobile FinTech adoption in the Nigerian context, leveraging the UTAUT framework. As a structured model for analyzing technology adoption, UTAUT integrates key dimensions such as performance expectancy, effort expectancy, social influence, and facilitating conditions. Applying this model to the Nigerian market enables researchers to uncover distinct adoption drivers and challenges, offering valuable insights for FinTech firms. Such research is crucial for developing evidence-based strategies in the sector. By identifying the key factors that promote or hinder adoption, FinTech companies can tailor their services and communication strategies to better align with consumer preferences and expectations. Therefore, this study aims to address this knowledge gap by assessing the influence of UTAUT dimensions on the adoption of mobile FinTech services in Calabar, Nigeria. The specific objectives of this research are as follows:

1. To determine the effect of performance expectancy on consumers' adoption of mobile FinTech services in Calabar;
2. To examine the effect of effort expectancy on consumers' adoption of mobile FinTech services in Calabar;
3. To ascertain the effect of social influence on consumers' adoption of mobile FinTech services in Calabar;
4. To determine the effect of facilitating conditions on consumers' adoption of mobile FinTech services in Calabar.

Literature Review

Mobile financial technology services

Mobile financial technology services, commonly referred to as mobile fintech, encompass a range of financial services provided through mobile devices such as smartphones and tablets. These services include mobile banking, mobile payments, peer-to-peer transfers,

and other financial transactions that leverage digital technology to improve accessibility and efficiency (Popescu, 2019). The emergence of mobile financial technology services in developing African countries like Nigeria is driven by several interconnected factors, such as the rapid proliferation of mobile phones has been a significant catalyst (Joseph et al., 2021). In Nigeria, mobile phone penetration has skyrocketed over the past decade, with millions of individuals gaining access to mobile devices even in remote areas. This widespread availability of mobile phones has created a fertile ground for mobile fintech services to flourish, as these services leverage the existing mobile infrastructure to reach a large and diverse user base (Ediagbonya & Tioluwani, 2023). Another critical factor is the limited access to traditional banking services in many parts of Africa. In Nigeria, a substantial portion of the population remains unbanked or underbanked, primarily due to the scarcity of banking infrastructure in rural areas (Joseph et al., 2021). Mobile fintech services bridge this gap by providing financial services to individuals who might not have access to conventional banks. By offering an alternative to physical bank branches, mobile fintech enables financial inclusion and empowers individuals to participate in the formal economy.

The evolution of mobile financial technology services is also driven by the increasing need for efficient and secure financial transactions (Olatunji, 2020; Mishra & Varshney, 2024). Traditional banking methods in Nigeria often involve lengthy processes, high fees, and security concerns. Mobile fintech services offer a more streamlined and cost-effective solution, allowing users to transfer money, pay bills, and conduct other financial activities quickly and securely. The integration of advanced technologies such as biometric authentication and encryption further enhances the security and reliability of these services, making them an attractive option for consumers. Moreover, government policies and regulatory frameworks have also played a crucial role in the growth of mobile fintech services in Nigeria (Akinwale & Kyari, 2022). Recognizing the potential of mobile technology to drive financial inclusion and economic growth, the Nigerian government and regulatory bodies have implemented supportive policies and frameworks. Initiatives such as the National Financial Inclusion Strategy aim to increase the availability of affordable financial services and promote the adoption of mobile fintech solutions (Ojo & Nwaokike, 2018). These regulatory measures provide a conducive environment for the development and expansion of mobile financial technology services.

Consumers' adoption of new technology

The adoption of new technology by consumers refers to the process through which individuals or groups start using and incorporating innovative technological products into their everyday routines. This process encompasses both the initial decision to adopt the technology and its continued use and integration over time (Kalantari, 2017). Another pertinent concept is technology diffusion, which refers to the spread of technological innovations within and across societies, capturing the pace and scale at which new technologies are embraced by various population segments (Kim et al., 2017). In the context

of developing African nations, multiple factors shape the adoption of new technologies. Economic considerations, for instance, play a critical role in determining the affordability of these innovations (Abubakar & Aina, 2019). Limited financial resources often force consumers to prioritize basic necessities over technological advancements. Furthermore, the broader economic climate, including income levels and economic stability, significantly influences consumers' ability to invest in new technologies (Sinha & Park, 2020). When individuals have disposable income and confidence in the economy, they are more inclined to embrace new technological solutions.

Access to infrastructure is another critical factor, because reliable electricity and internet connectivity are fundamental prerequisites for using many modern technologies (Nchise & Davies, 2019). In many African countries, inconsistent power supply and limited internet penetration hinder the widespread adoption of new technologies. Even where infrastructure exists, it is often concentrated in urban areas, leaving rural populations at a significant disadvantage. Similarly, educational attainment and digital literacy also significantly impact technology adoption, because individuals with higher levels of education are generally more capable of understanding and utilizing new technologies (Mbiti & Weil, 2017). Conversely, a lack of education and technical skills can be a substantial barrier. In addition, cultural factors and societal norms can influence how technology is perceived and adopted (Gagliardone & Sambuli, 2019). This is critical because in some communities, there may be resistance to change due to traditional beliefs or skepticism about the benefits of new technologies. As such, social influence, including the opinions of family, friends, and community leaders, can either encourage or discourage adoption (Dos Santos & Kniess, 2018). Furthermore, government policies and regulatory frameworks are crucial in shaping the technology adoption landscape (Chavula, 2017). This is because supportive policies, such as tax incentives for technology purchases, subsidies, and investment in infrastructure, can facilitate adoption. Conversely, restrictive regulations or bureaucratic hurdles can impede the process.

Theoretical framework

This study is anchored in the Unified Theory of Acceptance and Use of Technology (UTAUT), formulated by Venkatesh et al. (2003). UTAUT serves as a comprehensive and well-established model for understanding the determinants influencing user acceptance and adoption of technology. Developed by Venkatesh, Morris, Davis, and Davis in 2003, this framework integrates concepts from eight earlier theories of technology acceptance to provide a cohesive analytical approach (Venkatesh et al., 2003). Fundamentally, UTAUT asserts that four key constructs—Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions—directly affect users' intentions to adopt technology, which subsequently shapes their actual usage behavior (Venkatesh et al., 2003). Performance Expectancy refers to users' belief that adopting a particular technology will improve their efficiency or productivity. Effort Expectancy denotes the perceived ease

of use, whereas Social Influence represents the extent to which significant individuals, such as peers or family members, encourage technology adoption. Facilitating Conditions encompass the perceived availability of technical and organizational infrastructure necessary to support the technology's use (Barrane et al., 2018; Venkatesh et al., 2003). Moreover, the UTAUT model incorporates four moderating variables—gender, age, experience, and voluntariness of use—which influence the strength of relationships between these constructs and actual technology usage behavior (Venkatesh et al., 2003). These moderators acknowledge that individual demographics and situational factors can significantly impact users' perceptions and interactions with technology.

The UTAUT model has been extensively tested and applied across various disciplines, affirming its reliability in examining technology acceptance and informing the successful implementation of technological innovations (Venkatesh, 2022; Rahi et al., 2018; Andrews et al., 2021). Within the scope of this research, UTAUT is particularly significant because it identifies four fundamental factors presumed to drive consumers' adoption of emerging technologies such as mobile FinTech services. These factors—performance expectancy, effort expectancy, social influence, and facilitating conditions—play a crucial role in shaping users' intentions. According to UTAUT, consumer adoption of mobile FinTech services is primarily influenced by these constructs, assuming external variables remain constant. This implies that individuals are more inclined to embrace mobile FinTech services if they perceive them as beneficial for productivity (performance expectancy), user-friendly (effort expectancy), socially encouraged (social influence), and backed by sufficient infrastructure and resources (facilitating conditions). Consequently, the theory highlights the necessity of optimizing these factors to enhance adoption rates. For developers and marketers aiming to increase mobile FinTech usage, aligning technological solutions with consumer expectations and ensuring seamless integration into daily activities can significantly boost acceptance and long-term engagement.

Performance expectancy and consumers' adoption of technology

Performance expectancy is a central construct in the UTAUT framework, which aims to explain user intentions and behaviors related to technology adoption. It is defined as the extent to which an individual believes that using a specific technology will enhance their job performance or personal effectiveness (Shareef et al., 2018). This construct focuses on the perceived advantages and utility of the technology, such as improvements in productivity, efficiency, and overall performance outcomes. Performance expectancy is a critical factor in shaping consumers' decisions to adopt new technologies (Andrews et al., 2021). When potential users perceive that a technology will deliver substantial performance benefits, their willingness to adopt it significantly increases. This highlights the importance of demonstrating the tangible value and effectiveness of technological solutions to drive user acceptance and engagement. This expectation of enhanced performance creates a positive attitude towards the technology, reducing resistance and increasing willingness to invest time and resources in learning and integrating it into their routines. Moreover, high

performance expectancy can drive early adoption, as consumers who are convinced of the technology's benefits are more likely to become early adopters, setting a trend that influences wider adoption (Barkhordari et al., 2017). These early adopters often serve as references and provide testimonials about the technology's effectiveness, further reinforcing positive perceptions among potential users.

The foregoing viewpoint suggests that performance expectancy, as a UTAUT dimension, could immensely influence consumers' intention to adopt new technology and their subsequent usage behaviour. This perspective is corroborated by the findings of Ebizie et al. (2022), who established that performance expectancy played a crucial role in influencing consumers' adoption of cryptocurrency within Nigerian universities. Similarly, Ezenwafor et al. (2022) found that performance expectancy exerted a significant positive effect on consumers' attitudes and their intention to embrace FinTech services in Nigeria. Further supporting this viewpoint, Ojiaku et al. (2024) reported that performance expectancy had a notable positive influence on consumers' willingness to adopt financial technologies in the country. Additionally, Bashir and Muhammad (2023) identified a significant positive relationship between performance expectancy and consumers' adoption of mobile financial services in Yobe State, Nigeria. Beyond the Nigerian context, Chan et al. (2022) discovered that performance expectancy significantly influenced consumers' intention to engage with open banking services in Australia. Several other empirical studies have similarly confirmed that performance expectancy serves as a key determinant of consumers' adoption of emerging technologies (Urus et al., 2022; Daka & Phiri, 2019; Kurniasari et al., 2023). Hence, the following hypothesis was proposed:

H_1: Performance expectancy has a significant effect on consumers' adoption of mobile FinTech services in Calabar.

Effort expectancy and consumers' adoption of technology

As a core dimension of UTAUT, effort expectancy pertains to the extent to which individuals perceive a given system or technology as easy to use (Ferdaous & Rahman, 2021). It encompasses users' assessments of how simple or complex a technology appears, including aspects such as interface design, ease of learning, and overall usability. This construct reflects whether users feel they can interact with the technology efficiently without experiencing frustration or requiring substantial effort. According to Chan et al. (2022), effort expectancy plays a pivotal role in influencing consumer adoption of new technologies. When users perceive a system as intuitive and easy to navigate, they are more likely to embrace it, as this perception reduces both psychological resistance and practical challenges to adoption. Additionally, a high level of effort expectancy can enhance adoption rates by minimizing the time and cognitive resources required to become proficient with the technology (Kurniasari et al., 2023). Technologies that demand extensive training or significantly alter users' routines may discourage adoption. Conversely, solutions that seamlessly integrate into users' existing workflows tend to be

more attractive, as they provide immediate benefits without necessitating a steep learning curve. This is particularly relevant in professional environments, where employees prefer adopting technologies that enhance efficiency without requiring extensive retraining (Kalantari, 2017). Consequently, organizations developing new technologies often prioritize effort expectancy in their design strategies to accelerate and maximize user adoption.

This perspective underscores the substantial impact of effort expectancy, as defined within the UTAUT model, on consumers' willingness to adopt new technologies and their subsequent usage behavior. Empirical findings support this assertion, such as the study by Ebizie et al. (2022), which established that effort expectancy significantly influenced the adoption of cryptocurrency among students in Nigerian universities. Likewise, Ezenwafor et al. (2022) found that effort expectancy positively shaped consumers' attitudes and intentions toward adopting FinTech services in Nigeria. Research by Chike and Ogba (2023) further confirmed that effort expectancy had a significant positive effect on users' continued adoption of mobile payment platforms in Southeast Nigeria. Additionally, Ojiaku et al. (2024) reported that effort expectancy played a crucial role in determining consumers' willingness to embrace financial technologies in Nigeria. Chan et al. (2022) reinforced this notion by demonstrating that effort expectancy significantly influenced consumer intentions to adopt open banking services in Australia. Numerous other studies have similarly recognized effort expectancy as a key driver of technology adoption (Urus et al., 2022; Daka & Phiri, 2019; Kurniasari et al., 2023). Collectively, these findings emphasize the critical role of effort expectancy in facilitating both the initial acceptance and continued use of emerging technologies across various settings. Hence, the following hypothesis was proposed:

H_2: Effort expectancy has a significant effect on consumers' adoption of mobile FinTech services in Calabar.

Social influence and consumers' adoption of technology

In the UTAUT framework, social influence underscores the role of social norms and pressures in shaping an individual's behaviour towards adopting new technologies. It encompasses aspects of normative beliefs and the perceived expectations of influential people in one's social circle. In the context of technology adoption, social influence can manifest in various ways, including direct recommendations, peer pressure, or the observation of others using the technology (Kihoro & Kihoro, 2018). In the business world, social influence can substantially impact consumers' adoption of new technology because it can create a sense of urgency or necessity to adopt the technology to maintain social harmony and cohesion (Tusiime & Bagorogoza, 2020). This is so because when key influencers within a social network endorse a technology, it can reduce uncertainty and build trust in the new tool, as individuals often rely on the experiences and opinions of others to form their own attitudes. Similarly, social influence can drive technology adoption through the mechanism of social proof, where individuals conform to the behaviors they

observe in others, especially when they are uncertain about the decision (Mohammed & Al-Jadidi, 2021). This is particularly evident in environments where technology adoption is visible and socially observable. Moreover, social influence can enhance the perceived value and utility of a technology through shared experiences and collective usage (Nguyen et al., 2021; Mishra & Varshney, 2024). This is because when a technology becomes a standard tool within a community or group, it often leads to network effects, where the value of the technology increases as more people use it. This is commonly seen in communication technologies like messaging apps, where the benefit to the user grows as more contacts join the platform, creating a reinforcing cycle of adoption driven by social connectivity and interaction (Mwandila & Simelane, 2017).

This perspective underscores the crucial role of social influence, as outlined in the Unified Theory of Acceptance and Use of Technology (UTAUT), in shaping consumers' willingness to adopt new technologies and their continued usage behavior. Empirical evidence strongly supports this assertion. For example, research by Ezenwafor et al. (2022) established that social influence had a significant positive effect on consumers' attitudes and intentions regarding the adoption of FinTech services in Nigeria. Similarly, Chike and Ogba (2023) demonstrated that social influence played a key role in sustaining users' intention to continue using mobile payment platforms in Southeast Nigeria. Further reinforcing this viewpoint, Ojiaku et al. (2024) found that social influence was a significant factor in shaping consumers' willingness to embrace financial technologies in Nigeria. Additional evidence comes from the study by Bashir and Muhammad (2023), which revealed that social influence had a substantial positive impact on the adoption of mobile financial services in Yobe State, Nigeria. In an international context, Chan et al. (2022) similarly established that social influence significantly shaped consumers' intention to engage with open banking services in Australia. These findings align with broader research that consistently identifies social influence as a major determinant of technology adoption (Urus et al., 2022; Kurniasari et al., 2023). Collectively, these studies emphasize the pivotal role of social influence in fostering the adoption and sustained use of innovative technologies. When individuals observe that influential figures—such as peers, family members, or colleagues—endorse or actively use a particular technology, they are more likely to follow suit. This highlights the strategic importance of leveraging peer influence and social networks in marketing efforts to drive the adoption of technological innovations. Hence, the following hypothesis was proposed:

H_3: Social influence has a significant effect on consumers' adoption of mobile FinTech services in Calabar.

Facilitating conditions and consumers' adoption of technology

Within the UTAUT framework, facilitating conditions refer to the extent to which individuals perceive that the necessary organizational and technical infrastructure is available to support their use of a given technology (Lee et al., 2019). This concept

highlights external factors that can either promote or hinder the adoption and sustained use of new technologies. These factors include access to essential resources, compatibility with existing systems, availability of user support, and overall infrastructure readiness. Shareef et al. (2018) argued that facilitating conditions play a crucial role in consumers' adoption of new technologies by ensuring the necessary support and infrastructure for seamless integration. When individuals perceive that adequate resources and assistance are readily accessible, they are more inclined to adopt technology with confidence, thereby reducing the risks and uncertainties associated with its use (Barrane et al., 2018). Additionally, facilitating conditions contribute to user satisfaction and operational efficiency, leading to higher adoption rates (Rahi et al., 2018). A well-developed infrastructure that minimizes technical challenges allows for a smoother transition to new technologies. Furthermore, facilitating conditions can enhance users' perceptions of both the ease of use and the overall benefits of the technology, further driving adoption (Andrews et al., 2021). When users recognize that the technology aligns with their existing workflows and provides tangible benefits, they are more likely to integrate it into their daily tasks (Barkhordari et al., 2017).

This perspective is supported by empirical research demonstrating the strong influence of facilitating conditions on technology adoption. For example, Ebizie et al. (2022) found a significant positive relationship between facilitating conditions and the adoption of cryptocurrency in Nigerian universities. Similarly, Ezenwafor et al. (2022) revealed that facilitating conditions significantly influenced consumers' attitudes and intentions regarding the adoption of FinTech services in Nigeria. Chike and Ogba (2023) also found that facilitating conditions positively affected users' continuous intention to use mobile payment platforms in Southeast Nigeria. Furthermore, Daka and Phiri (2019) reinforced this viewpoint by showing that facilitating conditions had a substantial impact on the adoption of e-banking services in Zambia. Collectively, these studies underscore the critical role of facilitating conditions in ensuring the successful adoption and sustained use of new technologies. By addressing infrastructure readiness, resource availability, and system compatibility, organizations and technology providers can create an environment that encourages widespread technology adoption and long-term user engagement. Hence, the following hypothesis was proposed:

H_4: Facilitating conditions have a significant effect on consumers' adoption of mobile FinTech services in Calabar.

Review of empirical studies and conceptual model

TABLE 1 summarizes key studies on the adoption of financial technologies (FinTech) and related services, focusing on factors influencing consumer behaviour across different regions. It organizes the information by authors, research objectives, methodologies, findings, and limitations, providing a comparative overview of how various factors—such as performance expectancy, effort expectancy, social influence, and facilitating conditions—impact FinTech adoption. This synthesis highlights both common trends and unique

insights across diverse contexts, while also identifying gaps and areas for further research, particularly in the Nigerian context.

TABLE 1

Summary of empirical studies reviewed

Authors/Year	Research Objectives	Methodology	Findings	Limitations
Ebizie et al. (2022)	Examine factors influencing cryptocurrency adoption among Nigerian university fintech entrepreneurs.	313 university students in Anambra State; structured questionnaire; descriptive statistics and Pearson's correlation.	Effort expectancy, performance expectancy, and facilitating conditions positively influenced adoption. Social influence was nonsignificant.	Limited to Nigerian universities; no exploration of other regions or contexts.
Ezenwafor et al. (2022)	Determine factors influencing consumers' intention to adopt FinTech services in Nigeria.	640 internet users across Nigerian cities; online questionnaire; structural equation modeling.	Effort expectancy, performance expectancy, social influence, and facilitating conditions positively influenced FinTech adoption.	Limited to Nigeria; no comparison with other countries.
Chike and Ogba (2023)	Unravel factors influencing continuous intention to use mobile payment platforms in Southeast Nigeria.	395 respondents in Lagos State; structured questionnaire; descriptive statistics and multiple linear regression.	Facilitating conditions, social influence, effort expectancy, prior experience, and intrinsic motivation positively influenced adoption. Price value and performance expectancy were nonsignificant.	Limited to Southeast Nigeria; no exploration of other regions.
Ojiaku et al. (2024)	Examine factors influencing consumers' intentions to adopt financial technologies in Nigeria.	324 respondents in Nigeria; online questionnaire; descriptive statistics and structural equation modeling.	Performance expectancy, effort expectancy, and social influence positively influenced adoption. Facilitating conditions had no significant effect.	Limited to Nigeria; no exploration of other regions or contexts.
Bashir and Muhammad (2023)	Determine factors influencing adoption of mobile financial services in Yobe State, Nigeria.	220 respondents in Yobe State; structured questionnaire; descriptive statistics and structural equation modeling.	Social influence, performance expectancy, risk perception, and trust perception positively influenced adoption. Facilitating conditions and effort expectancy were nonsignificant.	Limited to Yobe State, Nigeria; no exploration of other regions.
Ferdaous and Rahman (2021)	Examine factors influencing FinTech adoption by Bangladeshi households.	481 FinTech users in Dhaka; structured questionnaire; descriptive statistics, CFA, and SEM.	Gender moderated social influence and facilitating conditions. Age and education moderated price value.	Limited to Bangladesh; no reference to UTAUT dimensions in Nigeria.
Kurniasari et al. (2022)	Examine determinants of FinTech payment	310 digital payment users in Indonesia;	Trust and government policies significantly	Limited to Indonesia; no

	services adoption in Indonesia.	structured questionnaire; multiple linear regression.	influenced adoption. Performance expectancy, effort expectancy, social influence, and facilitating conditions did not directly influence trust.	reference to UTAUT dimensions in Nigeria.
Chan et al. (2022)	Investigate factors influencing FinTech adoption in Australia.	456 FinTech users in Sydney; structured questionnaire; partial least squares SEM.	Performance expectancy, effort expectancy, social influence, and perceived risk positively influenced adoption.	Limited to Australia; no reference to UTAUT dimensions in Nigeria.
Urus et al. (2022)	Compare FinTech payment services adoption among Malaysian and Indonesian fresh graduates.	486 respondents in Malaysia and Indonesia; structured questionnaire; descriptive statistics and multiple regression.	Performance expectancy, effort expectancy, social influence, customer trust, and national culture positively influenced adoption.	Limited to Malaysia and Indonesia; no reference to UTAUT dimensions in Nigeria.
Daka and Phiri (2019)	Examine factors driving e-banking services adoption in Zambia.	313 respondents in Zambia; structured questionnaire; descriptive statistics and multiple regression.	Performance expectancy, effort expectancy, facilitating conditions, and behavior intention positively influenced adoption. Social influence was nonsignificant.	Limited to Zambia; no reference to UTAUT dimensions in Nigeria.
Kurniasari et al. (2023)	Investigate determinant factors of FinTech adoption in Indonesian organizations.	186 managers in Bali, Indonesia; structured questionnaire; descriptive statistics and SEM.	Performance expectancy, effort expectancy, social influence, customer trust, and regulatory services positively influenced adoption.	Limited to Indonesia; no reference to UTAUT dimensions in Nigeria.

Source: Authors' empirical review

The literature review highlights an ongoing academic debate regarding the extent to which the dimensions of UTAUT influence consumer adoption of FinTech services. Some researchers argue that all four UTAUT dimensions—performance expectancy, effort expectancy, social influence, and facilitating conditions—serve as significant predictors of consumer adoption behavior (Ezenwafor et al., 2022; Chan et al., 2022; Urus et al., 2022; Kurniasari et al., 2023). However, other scholars challenge this assertion, suggesting that not all UTAUT dimensions exhibit a strong predictive effect in the context of FinTech adoption (Ojiaku et al., 2024; Bashir & Muhammad, 2023; Kurniasari et al., 2022; Daka & Phiri, 2019). Given these divergent perspectives, this study aims to explore the potential positive correlation between UTAUT dimensions and the adoption of mobile FinTech services among consumers in Calabar. This proposition is informed by the findings of prior research, which have consistently identified a strong relationship between these dimensions and technology adoption (Ezenwafor et al., 2022; Chan et al., 2022; Urus et al., 2022; Kurniasari et al., 2023). The hypothesized causal relationship between these variables is illustrated in the conceptual model presented in FIG. 1.

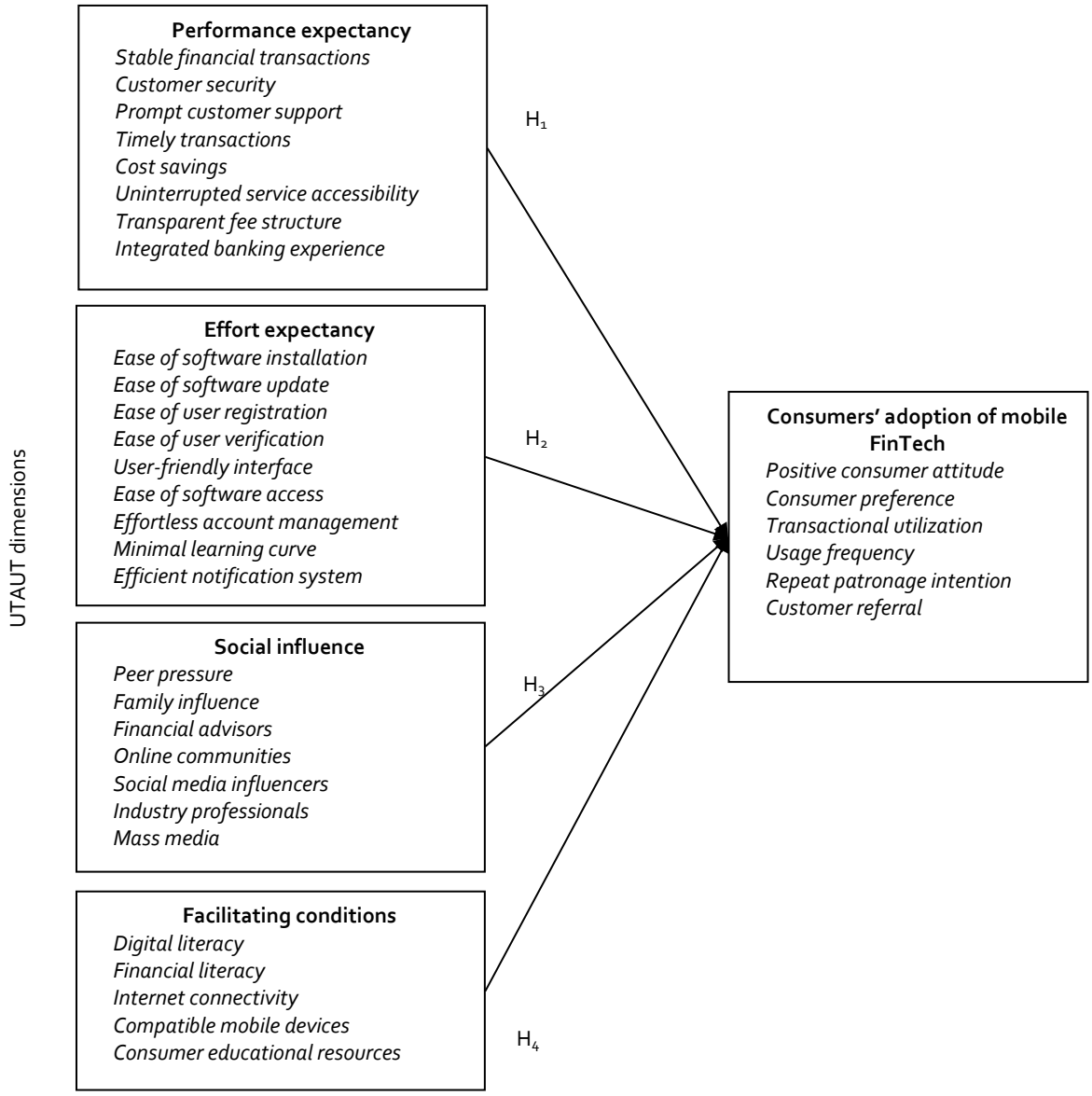

FIG. 1: Conceptual model of the study

Source: UTAUT dimensions adapted from: Ezenwafor et al. (2022); Ebizie et al. (2022); Chike and Ogba (2023); Ojiaku et al. (2024); Bashir and Muhammad (2023). Adoption parameters adapted from: Barkhordari et al. (2017); Shareef et al. (2018)

Research Methodology

Research design

This study employed a cross-sectional survey research design to collect primary data from users of FinTech services in Calabar, Nigeria, within a defined timeframe. The cross-sectional approach was selected for its efficiency in capturing a snapshot of user behaviors, attitudes, and perceptions regarding the adoption of mobile FinTech services at a specific

point in time. This design is particularly suitable for exploratory and descriptive studies focused on identifying trends, relationships, and patterns within a target population. In contrast to longitudinal designs, which require extended time periods and considerable resources, the cross-sectional method provided a cost-effective and time-efficient means of gathering data from a diverse sample. This was crucial in achieving the study's objective of understanding the factors influencing the adoption of mobile FinTech services in Calabar.

Study population and sample

The target population for this research comprised all users of mobile FinTech services in Calabar. This group was chosen because users are best positioned to provide accurate insights into the factors that influence their adoption and continued use of these services. However, due to the lack of up-to-date and precise statistics on the number of mobile FinTech users in Calabar, the population was considered numerically unknown or infinite. To overcome this challenge, the Topman sample size determination formula was utilized to calculate a statistically representative sample size. The formula is as follows:

$$n = \frac{Z^2Pq}{e^2}$$

Where n: Sample size required

Z: Tabular statistical unit (1.96)

P: Probability of positive response (0.44)

q: Probability of negative response (0.56)

e: Margin of error (5 percent)

The researchers conducted a preliminary survey by randomly selecting and interviewing 50 individuals along Calabar Road, a central area for commercial banks in Calabar. Participants were asked whether they used mobile FinTech services for their banking needs. Out of the 50 respondents, 22 (44%) indicated that they used mobile FinTech services, while 28 (56%) stated they did not. Based on these findings, the probability of positive responses (P) was calculated as 0.44, and the probability of negative responses (q) was 0.56. Using these values, the Topman formula was applied as follows:

$$n = \frac{1.96^2 (0.44 \times 0.56)}{0.05^2}$$

$$= \frac{3.8416 (0.2464)}{0.0025}$$

$$= \frac{0.9466}{0.0025}$$

$$= 378.64$$

n = 379 users of mobile FinTech services approximately

Sampling technique and data collection

The study employed a convenience sampling technique to recruit participants. This non-probability sampling method was selected for its practicality and efficiency in reaching the target population. Since anyone with a smartphone or an active bank account could potentially use mobile FinTech services, the researcher randomly approached potential respondents near commercial banks on Calabar Road, a central area for banking activities. Participants were included in the study only if they verbally confirmed their use of mobile FinTech services. While convenience sampling has limitations in terms of generalizability, it was considered appropriate for this study due to the accessibility of the target population and the need to ensure that participants were actual users of the services being investigated. Following this sampling procedure, primary data were collected using a structured questionnaire, administered by a team of three enumerators to ensure efficient and accurate data collection. The instrument utilized a 5-point Likert scale to quantify respondents' attitudes and perceptions. The questionnaire was carefully designed to align with the study's theoretical framework and research objectives.

Reliability of instrument and data analysis

The reliability of the questionnaire was evaluated using Cronbach's alpha coefficient. A pilot study was conducted with 50 students from the University of Calabar, and the data were analyzed using SPSS 23. The Cronbach's alpha values for all constructs were found to be at least 0.7, indicating that the instrument demonstrated internal consistency and reliability for use in the main study. Following this, data analysis was performed using descriptive statistics and multiple linear regression. Descriptive statistics were utilized to summarize respondents' demographic details and their answers to the Likert-scale questions. Multiple linear regression was employed to test the hypotheses of the study and assess the relationships between the independent variables (performance expectancy, effort expectancy, social influence, and facilitating conditions) and the dependent variable (consumer adoption of mobile FinTech services), using the following model:

$$CONSADOP = a + \beta_1 PERFEXP + \beta_2 EFFEXP + \beta_3 SOCINFLU + \beta_4 FACONS + e$$

Where:

CONSADOP = Consumers' adoption of FinTech

a = The intercept (or constant)

β_1PERFEXP = Coefficient of performance expectancy

β_2EFFEXP = Coefficient of effort expectancy

β_3SOCINFLU = Coefficient of social influence

β_4FACONS = Coefficient of facilitating conditions

e = Error margin (5 percent)

Analysis and Discussion

During the survey, 379 questionnaires were distributed to individuals using mobile financial technology services in Calabar, Nigeria. Of these, 357 were completed and returned, resulting in a response rate of 94.2%, while 22 questionnaires (5.8%) were not returned. This led to an overall response rate of 94.2%. The study's hypotheses were tested in their null form using multiple linear regression analysis:

Hypothesis one

Ho: Performance expectancy has no significant effect on consumers' adoption of mobile FinTech services in Calabar.

Hypothesis two

Ho: Effort expectancy has no significant effect on consumers' adoption of mobile FinTech services in Calabar.

Hypothesis three

Ho: Social influence has no significant effect on consumers' adoption of mobile FinTech services in Calabar.

Hypothesis four

Ho: Facilitating conditions have no significant effect on consumers' adoption of mobile FinTech services in Calabar.

Decision criteria: Accept the alternative hypothesis if (P < .05) and reject the null hypothesis, if otherwise.

TABLE 2

Model summary of the factors influencing consumers' adoption of mobile financial technology services in Calabar

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622[a]	.386	.378	.45801

a. Predictors: (Constant), Performance expectancy, effort expectancy, social influence and facilitating conditions

Source: Authors' analysis via SPSS

TABLE 3

ANOVA[a] of the factors influencing consumers' adoption of mobile financial technology services in Calabar, Nigeria

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	46.341	4	11.585	55.431	.000[b]
	Residual	73.632	352	.209		
	Total	119.973	356			

a. Dependent Variable: Consumers' adoption of mobile FinTech services

b. Predictors: (Constant), Performance expectancy, effort expectancy, social influence and facilitating conditions

Source: Authors' analysis via SPSS

TABLE 4

Coefficients[a] of the factors influencing consumers' adoption of mobile financial technology services in Calabar, Nigeria

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.485	.110		13.480	.000
	Performance expectancy	.188	.039	.266	4.807	.000
	Effort expectancy	.199	.037	.328	5.342	.000
	Social influence	.163	.032	.309	5.021	.000
	Facilitating conditions	.185	.043	.229	4.286	.000

a. Dependent Variable: Consumers' adoption of mobile FinTech services

Source: Authors' analysis via SPSS

The results presented in Tables 2, 3, and 4 reveal the outcomes of the regression analysis examining factors influencing the adoption of mobile financial technology services among consumers in Calabar, Nigeria. Table 2 shows a correlation coefficient (R = 0.622), indicating a 62.2% association between the UTAUT dimensions and consumer adoption, suggesting a strong relationship. The coefficient of determination (R^2 = 0.386) indicates that 38.6% of the variation in adoption is explained by the UTAUT dimensions. Additionally, Table 3 presents an F statistic of 44.182 with a p-value of 0.000, confirming the statistical significance of the UTAUT dimensions' effect on adoption.

Table 4 displays the standardized coefficients, outlining the contribution of each UTAUT dimension to adoption. Effort expectancy was the most influential factor (β = 0.328 or 32.8%), followed by social influence (β = 0.309 or 30.9%), performance expectancy (β = 0.266 or 26.6%), and facilitating conditions, which had the least influence (β = 0.229 or 22.9%). All UTAUT dimensions—performance expectancy, effort expectancy, social

influence, and facilitating conditions—had p-values below 0.05 and positive t-test values, confirming their significant positive effects on adoption. Therefore, all null hypotheses were rejected in favor of the alternative hypotheses, concluding that performance expectancy, effort expectancy, social influence, and facilitating conditions significantly and positively influence consumers' adoption of mobile financial technology services in Calabar, Nigeria.

Discussion of findings

The analysis of Hypothesis One showed that performance expectancy has a significant positive effect on the adoption of mobile financial technology services among consumers in Calabar. This finding aligns with Ebizie et al. (2022), who identified performance expectancy as a key determinant in the adoption of cryptocurrency among Nigerian university students. Similarly, Ezenwafor et al. (2022) revealed that performance expectancy positively influenced consumers' attitudes and intentions toward adopting FinTech services in Nigeria. These results highlight the significant role that perceived utility and benefits play in encouraging consumer uptake. For mobile FinTech providers, this suggests the importance of emphasizing the functional advantages of their services. Consumers are more likely to adopt technologies that they believe will enhance the speed, convenience, and efficiency of their financial tasks. As such, providers should focus on marketing strategies and service enhancements that clearly demonstrate the practical benefits and superior functionality of their offerings, thereby increasing adoption rates.

The analysis of Hypothesis Two indicated that effort expectancy has a significant positive effect on the adoption of mobile FinTech services in Calabar. This aligns with Ebizie et al. (2022), who found that effort expectancy was a significant factor in the adoption of cryptocurrency among university students in Nigeria, and Ezenwafor et al. (2022), who noted a similar influence on attitudes and intentions toward adopting FinTech services. This finding underscores the critical importance of ease of use in driving consumer acceptance and consistent engagement with mobile FinTech services. For providers, this suggests that optimizing user interfaces and ensuring smooth, hassle-free functionality can considerably boost adoption rates. Consumers are more likely to adopt and use services that they perceive as intuitive and simple. Therefore, focusing on ease of use and the overall user experience is essential to expanding market penetration and ensuring the success of mobile FinTech platforms in Nigeria.

The analysis of Hypothesis Three revealed that social influence has a significant positive effect on the adoption of mobile FinTech services in Calabar. This is consistent with Ezenwafor et al. (2022), who identified social influence as a major factor in shaping attitudes and intentions toward FinTech adoption in Nigeria, and Chike and Ogba (2023), who highlighted its importance in the continued use of mobile payment platforms in Southeast Nigeria. This finding emphasizes the role of social dynamics, such as recommendations from peers, family influence, and behaviors within social networks, in shaping consumer decisions. For providers, this suggests the value of leveraging social proof, endorsements,

and word-of-mouth to enhance adoption. Strategies that increase the visibility and credibility of mobile FinTech services within social networks can effectively foster consumer acceptance. This finding reinforces the notion that the social context, in addition to technical features and individual benefits, is crucial in determining the success of these services.

Furthermore, the analysis of Hypothesis Four showed that facilitating conditions have a significant positive influence on the adoption of mobile FinTech services in Calabar. This finding is supported by Ebizie et al. (2022), who found a positive relationship between facilitating conditions and cryptocurrency adoption among Nigerian university students, and Ezenwafor et al. (2022), who reported similar findings regarding FinTech adoption in Nigeria. This highlights the importance of external support systems and conducive environments in fostering consumer adoption. For providers, this suggests that ensuring a reliable infrastructure, accessible resources, and robust user support systems can greatly increase the likelihood of adoption. Consumers are more likely to adopt mobile FinTech services when they perceive that the necessary conditions are in place to ensure seamless integration into their daily routines. Therefore, creating an enabling environment is essential for promoting higher adoption rates and ensuring the success of mobile FinTech services in Nigeria.

Conclusion and Recommendations

Since the introduction of mobile financial technology (FinTech) services in Nigeria, their widespread adoption has faced substantial obstacles, such as a lack of consumer trust, inadequate technological infrastructure, and low levels of digital literacy. These challenges have motivated several academic investigations into the key determinants influencing the adoption of these services within the Nigerian context. This study specifically utilized the UTAUT framework to examine the factors driving the adoption of mobile FinTech services in Calabar, Nigeria. To achieve this, the research analyzed primary data gathered from users of mobile FinTech services in Calabar. The findings from the analysis revealed that performance expectancy, effort expectancy, social influence, and facilitating conditions all exerted a significant and positive effect on the adoption of mobile FinTech services among consumers in Calabar. This suggests that consumers are more likely to adopt these services when they perceive them as valuable and easy to use, when influenced by their social networks, and when they have access to essential resources and support systems. By understanding these factors, FinTech companies can enhance their strategies to improve user experience, leverage social dynamics, and ensure sufficient support infrastructure, thereby increasing adoption rates and promoting financial inclusion in the region. In conclusion, this study affirms that the UTAUT dimensions are critical in fostering the widespread adoption of mobile FinTech services in Nigeria. Based on these findings, the following recommendations are suggested for potential implementation:

1. Managers of mobile FinTech services can meet customers' performance expectancy by ensuring stable financial transactions, enhancing customer security with advanced encryption, providing 24/7 prompt customer support, guaranteeing timely transactions with optimized systems, ensuring a transparent fee structure, and integrating various banking services for a seamless user experience, thereby increasing user trust and satisfaction. This comprehensive approach will significantly improve consumers' adoption by building trust and demonstrating reliable and efficient service delivery.
2. To enhance consumers' adoption of mobile FinTech services in Nigeria, service providers should ensure that their platforms offer seamless software installation and updates, streamlined user registration, a user-friendly interface, effortless account management, minimal learning curve, and an efficient notification system, thereby making the entire user experience intuitive and frictionless. This will improve consumers' adoption by significantly reducing the perceived effort required to use the services, thereby increasing user satisfaction and engagement.
3. Managers of mobile FinTech services in Nigeria should leverage social influence by encouraging peer pressure through referral programmes, integrating family-oriented financial education campaigns, partnering with trusted financial advisors, fostering active online communities, collaborating with popular social media influencers, engaging industry professionals for endorsements, and utilizing mass media for broad awareness campaigns, thereby creating a multifaceted and pervasive trust-building environment. This approach will significantly improve consumers' adoption of mobile FinTech services by creating a robust network of trusted sources and peer influences that collectively reinforce the perceived reliability and benefits of these services.
4. To enhance the adoption of mobile FinTech services in Nigeria, service providers should implement robust internal facilitating conditions such as intuitive user interfaces, comprehensive customer support, and extensive user education programmes to simplify users' experiences and address potential barriers to adoption. This approach will improve consumers' adoption by making the services more accessible, user-friendly, and supportive, thereby reducing hesitations and increasing confidence in using the technology.

References

Abd Ghani, M., Rahi, S., Yasin, N. M., & Alnaser, F. M. (2017). Adoption of internet banking: Extending the role of technology acceptance model (TAM) with e-customer service and customer satisfaction. *World Applied Sciences Journal, 35*(9), 1918-1929.

Abubakar, I. R., & Aina, Y. A. (2019). The prospects and challenges of smart cities in developing countries. *Land Use Policy, 87*, 104-111. https://doi.org/10.1016/j.landusepol.2019.104111

Akinwale, Y. O., & Kyari, A. K. (2022). Factors influencing attitudes and intention to adopt financial technology services among the end-users in Lagos State, Nigeria. *African Journal of Science, Technology, Innovation and Development, 14*(1), 272-279

Andrews, J. E., Ward, H., & Yoon, J. (2021). UTAUT as a model for understanding intention to adopt AI and related technologies among librarians. *The Journal of Academic Librarianship, 47*(6), 102-127.

Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., & Ahangar, M. S. (2017). Factors influencing adoption of e-payment systems: An empirical study on Iranian customers. *Information Systems and E-business Management, 15*, 89-116.

Barrane, F. Z., Karuranga, G. E., & Poulin, D. (2018). Technology adoption and diffusion: A new application of the UTAUT model. *International Journal of Innovation and Technology Management, 15*(06), 195-208

Bashir, B. K., & Muhammad, T. (2023). Factors influencing the adoption of mobile financial services in enhancing financial inclusion: Using structural equation modeling for the decision-making approach. *Innovative Journal of Social Sciences, 11*(2), 19–27.

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, 40*(4), 886-917.

Chavula, H. K. (2017). The role of ICT in economic growth and poverty reduction in Africa. *Telecommunications Policy, 41*(10), 907-919. https://doi.org/10.1016/j.telpol.2017.09.007

Chike, N. K., & Ogba, I. E. (2023). Factors influencing continuous intention to use mobile payment platforms in Southeast, Nigeria. *European Journal of Business and Innovation Research, 11*(8), 43-75.

Daka, C. G., & Phiri, J. (2019). Factors driving the adoption of e-banking services based on the UTAUT model. *International Journal of Business and Management, 14*(6), 43-52.

Dos Santos, A., & Kniess, C. T. (2018). Digital literacy and technology acceptance in developing countries. *Journal of Technology and Development, 2*(1), 65-75. https://doi.org/10.1057/s40803-018-0067-0

Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers, 21*, 719-734.

Ebizie, P. I., Nkamnebe, A. D., & Ojiaku, O. C. (2022). Factors influencing cryptocurrency adoption among Nigerian university fintech entrepreneurs: A UTAUT perspective. *British Journal of Marketing Studies, 10*(3), 25-37.

Ediagbonya, V., & Tioluwani, C. (2023). The role of fintech in driving financial inclusion in developing and emerging markets: issues, challenges and prospects. *Technological Sustainability, 2*(1), 100-119.

Ezenwafor, E., Adebayo, R. O., & Okafor, E. (2022). Predictors of intention to adopt fintech among digitally active customers in Nigeria: Online savings and investment platforms [OSIPS]. *International Journal of Research in Business and Social Science*, *11*(10), 180-190.

Ferdaous, D. J., & Rahman, M. N. (2021). Banking goes digital: Unearthing the adoption of fintech by Bangladeshi households. *Journal of Innovation in Business Studies, 1*(1), 7-42.

Gagliardone, I., & Sambuli, N. (2019). Africa's digital future: The interplay of technology, politics, and policy. *African Affairs, 118*(470), 645-664. https://doi.org/10.1093/afraf/ady063

Joseph, T. E., Nwolisa, C. U., Obikaonu, P. C., & Alase, G. (2021). Monetary policy effectiveness and financial inclusion in Nigeria: FinTech,'the disrupter' or 'enabler'. *International Journal of Applied Economics, Finance and Accounting, 9*(1), 19-27.

Kalantari, M. (2017). Consumers' adoption of wearable technologies: literature review, synthesis, and future research agenda. *International Journal of Technology Marketing, 12*(3), 274-307.

Kihoro, J. M., & Kihoro, H. W. (2018). Unified theory of acceptance and use of technology (UTAUT) model for adoption and usage of e-government services in Kenya. *African Journal of Science, Technology, Innovation and Development, 10*(2), 193-199.

Kim, H. Y., Lee, J. Y., Mun, J. M., & Johnson, K. K. (2017). Consumer adoption of smart in-store technology: Assessing the predictive value of attitude versus beliefs in the technology acceptance model. *International Journal of Fashion Design, Technology and Education, 10*(1), 26-36.

Kurniasari, F., Tajul-Urus, S., Utomo, P., Abd Hamid, N., Jimmy, S. Y., & Othman, I. W. (2022). Determinant factors of adoption of fintech payment services in Indonesia using the UTAUT approach. *Asian-Pacific Management Accounting Journal, 17*(1), 97-125.

Kurniasari, F., Utomo, P., & Jimmy, S. Y. (2023). Determinant factors of Fintech adoption in organization using UTAUT theory approach. *Journal of Business and Management Review, 4*(2), 92-103.

Lee, M. J., Lee, G. S., & Park, J. Y. (2019). Assessing technology acceptance and usage behavior of elderly people in South Korea: A test of unified theory of acceptance and use of technology. *Human Factors and Ergonomics in Manufacturing & Service Industries, 29*(6), 321-331.

Mbiti, I., & Weil, D. N. (2017). Mobile banking: The impact of M-Pesa in Kenya. *African Successes: Modernization and Development, 3*, 247-293. https://doi.org/10.7208/chicago/9780226315850.003.0007

Mishra, D. R., & Varshney, D. (2024). Academic integrity in higher education: Faculty perceptions, strategies, and digital challenges in the digital age. *International Journal of All Research Education and Scientific Methods, 4*(2), 245-258

Mishra, D. R., & Varshney, D. (2024). Comprehensive analysis of human and AI task allocation in the education sector: Defining futuristic roles and responsibilities. *World Journal of Advanced Research and Reviews, 22*(3), 10-30574.

Mishra, D. R., & Varshney, D. (2024). Comprehensive analysis of human and AI task allocation in the education sector: Defining futuristic roles and responsibilities. *World Journal of Advanced Research and Reviews, 22*(3), 10-30574.

Mishra, D. R., & Varshney, D. (2024). Digital transformation (Dt): Promoting growth and efficiency in Uttar Pradesh organized retailing. *International Journal for Research in Engineering Application & Management, 10*(01), 32-37.

Mishra, D. R., & Varshney, D. (2024). Digital transformation (Dt): Promoting growth and efficiency in Uttar Pradesh organized retailing. *International Journal for Research in Engineering Application & Management, 10*(01), 32-37.

Mishra, R., & Varshney, D. (2024). Consumer protection frameworks by enhancing market fairness, accountability and transparency (FAT) for ethical consumer decision-making: Integrating circular economy principles and digital transformation in global consumer markets. *Asian Journal of Education and Social Studies, 50*(7), 640-652.

Mohammed, F., & Al-Jadidi, H. (2021). A study of the factors affecting the adoption of e-government services in Canada using the unified theory of acceptance and use of technology (UTAUT) model. *Telematics and Informatics, 61*, 101507.

Mwandila, D., & Simelane, T. (2017). Factors influencing the acceptance and use of e-learning technologies in higher education institutions in South Africa. *International Journal of Education and Development using Information and Communication Technology, 13*(3), 109-124.

Nchise, A., & Davies, C. (2019). Technology adoption in sub-Saharan Africa: Conceptual frameworks and policy implications. *Journal of African Development Studies, 6*(4), 81-99. https://doi.org/10.1108/JADS-06-2019-0097

Nguyen, T. T., Nguyen, D. T., & Bui, T. T. (2021). Adoption of mobile banking in Vietnam: A unified theory of acceptance and use of technology model. *Journal of Economics and Development, 23*(1), 91-114.

Ojiaku, O. C., Ezenwafor, E. C., & Osarenkhoe, A. (2024). Integrating TTF and UTAUT models to illuminate factors that influence consumers' intentions to adopt financial technologies in an emerging country context. *International Journal of Technology Marketing, 18*(1), 113-135.

Ojo, O. V., & Nwaokike, U. (2018). Disruptive technology and the fintech industry in Nigeria: Imperatives for legal and policy responses. *Gravitas Review of Business and Property Law, 9*(3), 78-91

Olatunji, T. (2020). Advancing the cause of fintech in Nigeria through regulation. *The Gravitas Review of Business & Property Law, 11*(4), 17-34.

Popescu, A. D. (2019). Empowering financial inclusion through fintech. *Social Sciences and Education Research Review, 6*(2), 198-215.

Rahi, S., Ghani, M., Alnaser, F., & Ngah, A. (2018). Investigating the role of unified theory of acceptance and use of technology (UTAUT) in internet banking adoption context. *Management Science Letters, 8*(3), 173-186.

Sarfaraz, J. (2017). Unified theory of acceptance and use of technology (UTAUT) model-mobile banking. *Journal of Internet Banking and Commerce, 22*(3), 1-20.

Shareef, M. A., Baabdullah, A., Dutta, S., Kumar, V., & Dwivedi, Y. K. (2018). Consumer adoption of mobile banking services: An empirical examination of factors according to adoption stages. *Journal of Retailing and Consumer Services, 43*, 54-67.

Sinha, A., & Park, H. (2020). The impact of ICT infrastructure on economic growth in sub-Saharan Africa. *Telecommunications Policy, 44*(3), 101890. https://doi.org/10.1016/j.telpol.2019.101890

Tusiime, R., & Bagorogoza, R. (2020). The adoption of National Health Insurance Scheme in Uganda: A unified theory of acceptance and use of technology approach. *Journal of Public Health in Africa, 11*(S1), 77-85.

Urus, S. T., Kurniasari, F., Faiza, S. M., Nazri, S. N., Utomo, P., Othman, I. W., Jimmy, S. Y., & Hamid, N. A. (2022). A comparative study of FinTech payment services adoption among Malaysian and Indonesian fresh graduates: Through the lens of UTAUT theory. *Eastern-European Journal of Enterprise Technologies, 119*(13), 78-93

Utami, A. F., Ekaputra, I. A., & Japutra, A. (2021). Adoption of FinTech products: A systematic literature review. *Journal of Creative Communications, 16*(3), 233-248.

Venkatesh, V. (2022). Adoption and use of AI tools: A research agenda grounded in UTAUT. *Annals of Operations Research, 308*(1), 641-652.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 425-478.