

# Meditating Effect of FINTECH in to Real Estate Financial System on the Relationship Between Foreign Direct Investment and Economic Development

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DOI: <https://doi.org/10.30880/rmtb.2024.05.01.116>

## Article Info

Received: 31 March 2024

Accepted: 30 April 2024

Available online: 30 June 2024

## Keywords

Foreign Direct Investment, Financial Technology, Economic Development, Real Estate Sector.

## Abstract

The introduction of the integration of financial technology (FINTECH) with the real estate sector is increasing and Nigeria is actively participating in this transformation. This research aimed to investigate the mediating effect of FINTECH on the relationship between Foreign Direct Investment (FDI) and Economic Development, with a focus on the Nigerian real estate sector. Drawing upon a quantitative research design and a descriptive/exploratory strategy, the study employed structural equation modeling to analyze data collected from a sample of 375 real estate developers in Nigeria through the purposive sampling techniques. The study affirms that there is a positive impact of FDI on economic development. Capital infusion, technology transfer, and market integration associated with FDI are identified as significant contributors to sustained economic growth. The research also recognized the role of FINTECH in stimulating economic activities, enhancing financial inclusion, and fostering efficiency in the real estate sector. A noteworthy revelation of the study is there is mediating effect of FINTECH in the relationship between FDI and Economic Development. This highlights the transformative potential of technological advancements in amplifying the positive effects of foreign investment. The findings emphasize the need for policy integration, investment in technological infrastructure, capacity building, cross-sector collaboration, and continuous monitoring to harness the synergies between FDI and FINTECH for comprehensive and sustainable economic development.

## 1. Introduction

The convergence of financial technology (FINTECH) and the real estate sector is gaining prominence on a global scale, and Nigeria is no exception to this transformative trend. Scholars such as Adesoye et al (2019), Demirguc-kunt and Klapper (2018) underscore the significant impact of innovative financial technologies, such as mobile banking and digital payments, on shaping financial systems and influencing investment patterns worldwide. As Nigeria strives to position itself as a hub for economic growth and development, understanding the interplay between FINTECH, real estate, foreign direct investment (FDI), and economic development becomes imperative.

Foreign Direct Investment (FDI) has historically been recognized as a catalyst for economic growth (Alfaro et al., 2004) and Nigeria, with its burgeoning real estate sector, has been a recipient of substantial foreign capital. The real estate market in Nigeria, characterized by increasing urbanization and infrastructure development, is seen as a key player in attracting FDI and fostering economic progress (Ogunba, 2017). However, the dynamics of this relationship are multifaceted, and the advent of FINTECH introduces a novel dimension that necessitates exploration within the Nigerian context.

The Nigerian real estate sector is undergoing a technological transformation, with digital innovations in property valuation, crowdfunding platforms, and transaction processes reshaping the industry (Oyediran et al., 2017). This transformation aligns with the global trend identified by (Geltner et al., 2017), emphasizing the impact of technology on real estate operations. The potential mediating role of FINTECH in the relationship between FDI and economic development within the Nigerian real estate context is a novel area of inquiry that warrants focused attention.

Despite the increasing acknowledgment of FINTECH's impact on financial systems and the growing importance of the real estate sector in attracting FDI in Nigeria, there is a noticeable gap in the literature concerning the mediating effects of FINTECH within this specific context. This research seeks to bridge this gap by investigating how the adoption of FINTECH in Nigeria's real estate financial systems influences the relationship between FDI and economic development.

Nigeria, as a leading economy in Africa, has witnessed a surge in the adoption of FINTECH, driven by factors such as increased mobile phone penetration and a burgeoning young population eager to embrace digital financial solutions (Akinola et al., 2020). This digital financial revolution is reshaping traditional banking and investment practices, extending its influence into the real estate sector. With Nigeria being a hub for diverse economic activities, including oil and gas, agriculture, and services, the exploration of the mediating effect of FINTECH in real estate becomes crucial for understanding the holistic impact on the nation's economic landscape.

The Nigerian real estate market, characterized by a growing demand for housing and infrastructure development, is poised to benefit from the influx of foreign direct investment. However, challenges such as lack of transparency and inefficiencies in traditional financial systems have hindered the sector's full potential (Adesoye et al., 2019). The integration of FINTECH solutions presents an opportunity to address these challenges by introducing transparency, reducing transaction costs, and enhancing the overall efficiency of real estate transactions.

As Nigeria strives to diversify its economy and attract sustainable foreign investments, understanding the intricate relationships between FINTECH, FDI, and economic development in the real estate sector becomes pivotal. The Nigerian government has recognized the importance of technology in fostering economic growth, as evidenced by initiatives like the National Fintech Roadmap launched in 2020, emphasizing the need for a coordinated approach to harnessing the potential of FINTECH across various sectors, including real estate (CBN, 2020).

Moreover, the COVID-19 pandemic has accelerated the digital transformation of industries globally, including real estate. The pandemic-induced limitations on physical interactions have heightened the demand for digital solutions in real estate transactions (Hoesli et al 2013). Against this backdrop, investigating the mediating role of FINTECH in the relationship between FDI and economic development in the Nigerian real estate sector becomes even more pertinent, considering the sector's resilience and adaptability to global challenges (CBN, 2020).

The intersection of FINTECH and the real estate sector represents a dynamic paradigm shift, offering innovative solutions that reshape traditional processes and practices. The incorporation of digital tools and platforms into real estate transactions has the potential to streamline operations, enhance efficiency, and foster transparency (Geltner et al., 2017). One key area where FINTECH has made significant inroads in real estate is in property valuation. Digital platforms utilize advanced algorithms and data analytics to assess property values, providing more accurate and timely information compared to traditional methods (Geltner et al., 2017).

FINTECH has facilitated the emergence of crowdfunding platforms in real estate, allowing investors to participate in property ventures with smaller capital contributions. This democratization of real estate investment can open new avenues for financing and increase market accessibility (Oyediran et al., 2017). Digitalization has streamlined transaction processes, reducing the time and paperwork associated with property

transactions. Blockchain technology, in particular, holds promise in enhancing the security and transparency of real estate transactions (Konasheych, 2020).

The regulatory landscape for FINTECH in real estate is evolving, and navigating diverse legal frameworks poses a challenge. Varied regulatory approaches across jurisdictions may hinder the seamless integration of FINTECH solutions (Feyen et al., 2023). As real estate transactions increasingly rely on digital platforms, ensuring the security and privacy of sensitive data become paramount. Cybersecurity threats and data breaches pose significant challenges to the trustworthiness of FINTECH applications in real estate (Feyen et al., 2023). The adoption of FINTECH in the real estate sector is contingent upon the readiness of market participants to embrace new technologies. Resistance to change, coupled with the need for robust technological infrastructure, may impede widespread adoption (Ullah et al., 2021).

The absence of standardized practices and protocols in the use of FINTECH tools can result in interoperability challenges. Achieving a cohesive and standardized approach is crucial for ensuring seamless integration across different components of the real estate ecosystem (Andrae, 2023). While FINTECH has the potential to democratize real estate investment, there is a risk of exacerbating economic inequality. Ensuring inclusivity and preventing the digital divide requires intentional efforts to provide access and opportunities for a broad spectrum of investors (Jameaba, 2020).

The integration of financial technology (FINTECH) into the real estate sector holds significant implications for the broader economic landscape, particularly in the context of Foreign Direct Investment (FDI) and economic development. The need to delve into the mediating effect of FINTECH in the real estate financial system stems from the transformative potential of technology in shaping investment patterns and influencing economic outcomes (Demirgüç-Kunt & Klapper, 2018). One primary rationale for investigating the mediating role of FINTECH in the real estate financial system lies in its capacity to enhance efficiency in transactions. Digitalization and blockchain technologies, for instance, can streamline property transactions, reducing administrative burdens and enhancing the overall speed and transparency of real estate dealings (Geltner et al., 2017).

Attracting Foreign Direct Investment (FDI), the real estate sector serves as a significant magnet for Foreign Direct Investment (FDI) globally (Alfaro et al., 2004). Understanding how FINTECH influences the attractiveness of real estate investments is crucial for policymakers and investors alike, given the potential of technology to make investment environments more appealing and secure.

The mediating effect of FINTECH in real estate can contribute to transparency and risk mitigation, essential factors for attracting foreign investment. Digital platforms can provide real-time data and analytics, allowing investors to make informed decisions and reducing uncertainties associated with real estate investments (Ogunba, 2017). The relationship between FDI, the real estate sector, and economic development is complex. Investigating the mediating effect of FINTECH becomes imperative in understanding how technological advancements can catalyze economic development through the facilitation of foreign investments in real estate (Hoesli et al., 2013).

For developing economies, including Nigeria, where there is a burgeoning real estate market, understanding the mediating effect of FINTECH becomes particularly relevant. These economies can leverage technological innovations to attract foreign investments, catalyzing economic growth and development (Oyediran et al., 2017). The research gap in understanding the mediating effect of FINTECH in the real estate financial system, especially in the context of FDI and economic development, emphasizes the need for further exploration. Bridging this gap is essential for creating a comprehensive understanding of the intricate relationships at play in the evolving landscape of global finance and real estate dynamics (Demirgüç-Kunt & Klapper, 2018).

## 2. Literature Review

### 2.1 FINTECH

Financial technology, commonly known as FINTECH, has rapidly transformed the financial landscape, introducing innovative solutions that redefine traditional financial processes (Demirgüç-Kunt & Klapper, 2018). This evolution has been driven by advancements in digital technology, impacting various sectors, including banking, investment, and real estate (Oyediran et al., 2017).

Financial technology, commonly referred to as FINTECH, is a dynamic and rapidly evolving field that revolutionizes traditional financial processes through the integration of innovative technological solutions. As described by Demirgüç-Kunt and Klapper (2018), FINTECH encompasses a diverse range of technologies and applications that leverage advancements in digital technology to reshape how financial services are accessed and delivered. The transformative nature of FINTECH extends its influence across multiple sectors, including banking, investment, and real estate (Oyediran et al., 2017).

Within the realm of FINTECH, a plethora of technological applications has emerged, each catering to

distinct financial needs. Mobile banking applications, digital payment systems, robo-advisors, and blockchain technology are examples of prominent FINTECH categories, each contributing uniquely to financial ecosystems (Akinola et al., 2020). These technologies enhance accessibility, efficiency, and security in financial transactions, fostering a more inclusive and streamlined financial landscape.

One of the notable contributions of FINTECH is the proliferation of mobile banking applications and digital payment systems. These technologies enable users to perform various financial activities, from transferring funds to managing investments, using their smartphones. The convenience and accessibility offered by mobile banking have transformed how individuals interact with their finances, reducing the reliance on traditional banking structures (Akinola et al., 2020).

Robo-advisors represent another facet of FINTECH, offering automated, algorithm-driven financial planning and investment advice. These platforms analyze user preferences, risk tolerance, and financial goals to provide personalized investment recommendations (Oyediran et al., 2017). The rise of robo-advisors has democratized access to investment advice, allowing individuals with varying levels of financial literacy to engage in wealth management.

Blockchain technology, a decentralized and secure ledger system, has gained prominence within the FINTECH landscape. Its applications extend beyond cryptocurrencies, such as Bitcoin, to include smart contracts and transparent, tamper-resistant record-keeping in financial transactions (Demirgüç-Kunt & Klapper, 2018). Blockchain's potential to enhance security and transparency has implications for various financial processes, including real estate transactions and supply chain finance.

The advent of FINTECH has disrupted traditional banking models by offering alternative financial services outside the conventional banking infrastructure. Mobile banking applications and digital wallets enable users to conduct transactions, access credit, and manage funds without the need for physical bank branches (Akinola et al., 2020). This shift challenges traditional banking institutions to adapt and embrace digital innovations to remain competitive.

One of the notable societal impacts of FINTECH is its role in promoting financial inclusion. Digital technologies have extended financial services to previously underserved populations, enabling them to participate in the formal financial system (Demirgüç-Kunt & Klapper, 2018). The accessibility offered by FINTECH contributes to reducing economic disparities and fostering a more inclusive financial environment.

As FINTECH continues to reshape the financial landscape, regulatory frameworks face challenges in keeping pace with technological advancements. The dynamic nature of FINTECH requires agile and adaptable regulatory approaches to ensure consumer protection, data security, and the overall stability of financial systems (Oyediran et al., 2017). Striking a balance between fostering innovation and mitigating risks remains a critical challenge for regulators.

The trajectory of FINTECH suggests ongoing evolution and the emergence of new trends. Artificial intelligence, machine learning, and the further integration of blockchain technology are anticipated to play pivotal roles in shaping the future of FINTECH (Demirgüç-Kunt & Klapper, 2018). As the industry continues to evolve, the ability to anticipate and address regulatory, ethical, and technological challenges will be essential for maximizing the positive impact of FINTECH on the global financial landscape.

## 2.2 Types of FINTECH

Within the realm of FINTECH, various types of technologies have emerged, each catering to distinct financial needs. Mobile banking applications, digital payment systems, robo-advisors, and blockchain technology are examples of prominent FINTECH categories, each contributing uniquely to financial ecosystems (Akinola et al., 2020).

The diverse landscape of FINTECH is marked by a spectrum of technologies, each tailored to address specific financial requirements. Notably, mobile banking applications have emerged as a pivotal component of FINTECH, providing users with convenient and accessible means to manage their finances on-the-go (Akinola et al., 2020). Mobile banking has significantly altered the dynamics of traditional banking, empowering users to conduct various financial transactions seamlessly through their smartphones.

Digital payment systems represent another cornerstone of FINTECH, offering efficient and secure alternatives to traditional payment methods. The advent of digital wallets, peer-to-peer payment platforms, and contactless transactions has transformed the way individuals make payments and manage their financial transactions (Akinola et al., 2020). These systems have contributed to the acceleration of cashless economies and heightened financial inclusivity.

Robo-advisors, a subset of FINTECH, exemplify the intersection of technology and investment management. These automated platforms utilize algorithms to analyze user-specific financial data and provide tailored investment advice (Akinola et al., 2020). Robo-advisors have democratized access to wealth management services, making investment advice more accessible to a broader spectrum of individuals, regardless of their financial expertise.



Blockchain technology, a decentralized and secure ledger system, has gained prominence within the FINTECH landscape (Akinola et al., 2020). It serves as the foundation for cryptocurrencies like Bitcoin and extends its applications to areas such as smart contracts and transparent record-keeping in financial transactions. The decentralized nature of blockchain enhances security and transparency, making it a disruptive force in traditional financial processes.

The diverse types of FINTECH technologies play a pivotal role in reshaping the financial landscape. Mobile banking and digital payment systems enhance accessibility and convenience, robo-advisors democratize investment services, and blockchain technology introduces new paradigms of security and transparency. The collaborative impact of these technologies contributes to a more inclusive, efficient, and technologically advanced financial ecosystem (Akinola et al., 2020). The ongoing evolution of FINTECH types underscores the dynamic nature of this field, with continuous innovations shaping the future of financial services.

## 2.3 Financial System

The financial system, as the backbone of economic activities, encompasses institutions, markets, and intermediaries facilitating the flow of funds. The integration of FINTECH into the financial system has led to a paradigm shift, offering efficient alternatives to traditional banking and investment practices (Demirgüç-Kunt & Klapper, 2018).

The financial system stands as the vital infrastructure supporting economic activities, comprising institutions, markets, and intermediaries that facilitate the seamless flow of funds. Traditionally entrenched in conventional practices, the financial system has undergone a profound transformation with the integration of FINTECH. This technological infusion has prompted a paradigm shift, presenting efficient alternatives to the traditional modes of banking and investment (Demirgüç-Kunt & Klapper, 2018).

The integration of FINTECH within the financial system has catalyzed several transformative changes. Mobile banking applications, digital payment systems, and blockchain technology have emerged as disruptive forces, challenging the conventional banking model. These innovations have introduced efficient and user-friendly alternatives, revolutionizing the way individuals and businesses engage with financial services (Demirgüç-Kunt & Klapper, 2018).

Moreover, FINTECH has played a pivotal role in fostering financial inclusion. By leveraging technology, particularly in regions with limited access to traditional banking services, FINTECH has empowered previously underserved populations to participate in the formal financial system. The accessibility offered by mobile banking applications and digital payment systems has bridged gaps, providing financial services to a broader demographic (Demirgüç-Kunt & Klapper, 2018).

The collaborative impact of FINTECH on the financial system extends beyond consumer-facing applications. Robo-advisors and algorithmic trading systems have streamlined investment processes, enhancing efficiency and accessibility for investors. The real-time analytics and personalized insights provided by these technologies contribute to a more dynamic and responsive financial system (Demirgüç-Kunt & Klapper, 2018).

The integration of FINTECH into the financial system has ushered in an era of innovation and efficiency. The transformative power of mobile banking, digital payments, and blockchain technology has redefined traditional financial practices. The inclusive nature of these technologies has not only revolutionized consumer interactions with financial services but has also contributed to the overall dynamism and accessibility of the global financial system (Demirgüç-Kunt & Klapper, 2018). This evolving landscape underscores the continued importance of adapting to technological advancements to ensure the resilience and responsiveness of the financial system.

## 2.4 Real Estate

The real estate sector, a critical component of the global economy, has witnessed the impact of FINTECH in various dimensions. Digital innovations in property valuation, crowdfunding platforms, and transaction processes have reshaped the operational landscape of real estate, introducing efficiency and transparency (Geltner et al., 2017).

The real estate sector, an integral component of the global economy, has undergone a transformative shift with the integration of FINTECH. The influence of digital innovations has been particularly pronounced in areas such as property valuation, crowdfunding platforms, and transaction processes, reshaping the operational landscape and introducing unprecedented efficiency and transparency (Geltner et al., 2017).

Digital innovations have revolutionized property valuation methodologies within the real estate sector. Advanced algorithms and data analytics, often facilitated by FINTECH applications, have enhanced the accuracy and speed of property valuation. These technologies provide stakeholders with real-time insights, contributing to more informed decision-making in property transactions and investment strategies (Geltner et al., 2017).

Crowdfunding platforms represent another significant area of impact for FINTECH in real estate. These platforms leverage technology to connect investors with real estate projects, allowing for smaller capital

contributions from a diverse pool of investors. This democratization of real estate investment has broadened access to opportunities and diversified the investor base, fostering increased liquidity in the real estate market (Akinola et al., 2020).

The efficiency gains realized through FINTECH in real estate transactions are substantial. Blockchain technology, for instance, has been employed to streamline and secure property transactions. The use of smart contracts, enabled by blockchain, facilitates automated and transparent execution of contractual agreements, reducing the complexity and time involved in real estate transactions (Demirguc-Kunt et al., 2018).

The impact of FINTECH on the real estate sector is multifaceted, introducing efficiencies and transparency across various dimensions. From revolutionizing property valuation processes to democratizing investment through crowdfunding platforms, these technological advancements are reshaping traditional practices. As the real estate industry continues to embrace and adapt to these innovations, stakeholders are presented with new opportunities to enhance decision-making, reduce operational inefficiencies, and foster a more dynamic and accessible real estate market (Geltner et al., 2017).

## 2.5 Foreign Direct Investment (FDI)

FDI plays a pivotal role in fostering economic development by injecting capital and expertise into host countries (Alfaro et al., 2004). The real estate sector often serves as a significant recipient of FDI, contributing to infrastructure development and job creation (Ogunba, 2017).

FDI stands as a crucial driver of economic development, serving to inject capital and expertise into host countries (Alfaro et al., 2004). The impact of FDI is particularly evident in the real estate sector, where substantial investments contribute not only to economic growth but also to infrastructure development and job creation (Ogunba, 2017).

The real estate sector's attractiveness to FDI lies in its potential for long-term returns and its role in fostering economic development. It is emphasized that FDI brings not only financial resources but also technological advancements and managerial expertise, elevating the overall efficiency and productivity of the host country's real estate market (Alfaro et al., 2004). As a result, FDI in real estate becomes a strategic avenue for nations seeking to enhance their economic landscape.

FDI in the real estate sector often manifests in various forms, including investments in commercial and residential properties, as well as in large-scale infrastructure projects. These investments have a cascading effect, contributing to job creation, improving living standards, and catalyzing the development of ancillary industries that support the real estate market (Ogunba, 2017). As a result, FDI becomes a catalyst for comprehensive economic development.

The relationship between FDI and the real estate sector is bidirectional, with a well-developed real estate market attracting more FDI, while increased FDI enhances the vibrancy and sustainability of the real estate sector. This symbiotic relationship is particularly relevant in the context of developing economies, where FDI in real estate can play a transformative role in bridging infrastructure gaps and accelerating economic progress (Alfaro et al., 2004).

FDI's pivotal role in the real estate sector goes beyond mere capital injection. It acts as a catalyst for holistic economic development, fostering technological advancements, job creation, and the overall growth of the host country. Understanding the intricate relationship between FDI and the real estate sector is crucial for policymakers, investors, and industry stakeholders, as it provides insights into the mechanisms that drive sustainable economic development (Adesoye et al., 2019; Ogunba, 2017; Nunnally 1978).

## 2.6 Economic Development

The relationship between FDI and economic development is complex and multifaceted. While FDI is a driver of economic growth, its impact varies across sectors and regions (Alfaro, et al., 2004; Ullah et al., 2021). Understanding the interplay between FDI, FINTECH, and economic development, particularly within the real estate context, is crucial for policymakers and investors alike.

The relationship between FDI and economic development is intricate and varies across sectors and regions. Recognized as a driver of economic growth, FDI's impact is shaped by numerous factors, including the specific industry it targets and the regulatory environment of the host country (Alfaro et al., 2004). The dynamics of this relationship become even more nuanced when considering the evolving role of FINTECH within the realm of economic development.

The interplay between FDI, FINTECH, and economic development is particularly significant in the context of the real estate sector. FDI injects capital and expertise into the real estate market, contributing to infrastructure development, job creation, and overall economic growth (Ogunba, 2017; Hoesli, et al., 2013). The incorporation of FINTECH in this equation introduces a technological dimension, potentially amplifying the positive effects of FDI by enhancing efficiency, transparency, and accessibility within real estate transactions and investments

(Dunning, 1980).

While FDI had been historically recognized for its positive influence on economic development, it is essential to consider the potential impact of FINTECH as a catalyst. Technological advancements, including mobile banking, digital payments, and blockchain in the real estate sector, can complement FDI by creating an environment that fosters innovation, reduces transactional frictions, and attracts further investment (Demirgüç-Kunt, & Klapper, 2018; Jiang et al., 2023).

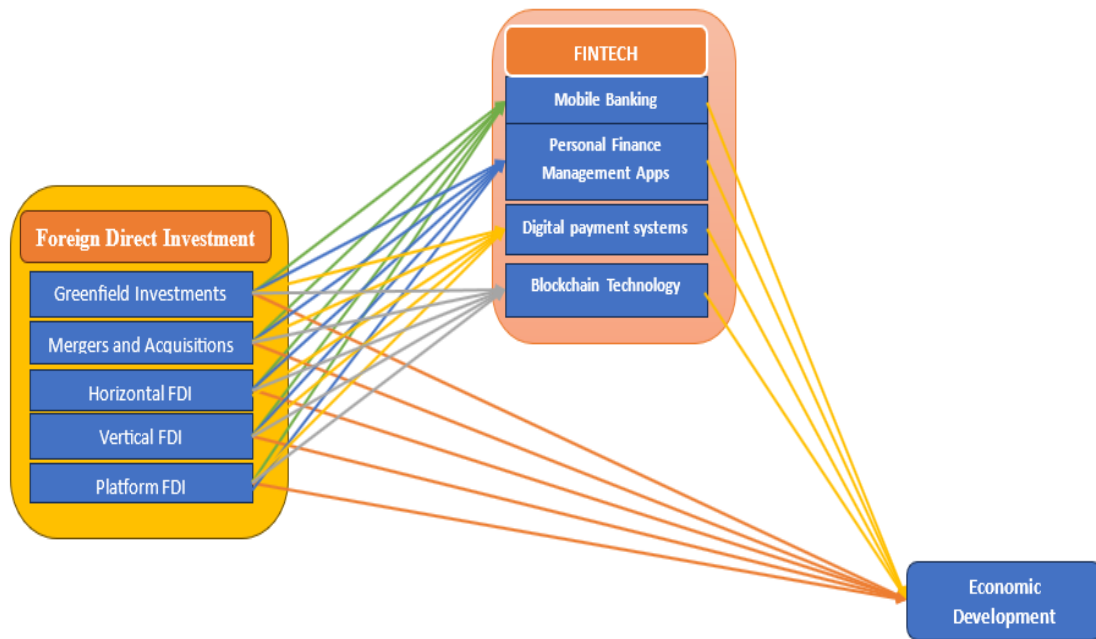
The evolving landscape of economic development underscores the need for policymakers and investors to comprehend the synergies between FDI, FINTECH, and sector-specific dynamics. The real estate sector, as a recipient of FDI and a canvas for technological innovation, represents an intricate nexus where these forces converge. As the global economy continues to integrate technological advancements, understanding and harnessing the potential synergies between FDI and FINTECH will be crucial in shaping sustainable economic development trajectories (Alfaro et al., 2004; Demirgüç-Kunt, A., & Klapper, 2018; Adesoye, et al 2019).

The relationship between FDI, FINTECH, and economic development is a multifaceted and evolving dynamic. Recognizing the impact of FDI as a traditional driver of economic growth and understanding the transformative potential of FINTECH within this context is paramount. The real estate sector, as an intersection of these forces, serves as a compelling case study for exploring how technological innovation can augment the positive effects of FDI on economic development (Alfaro et al 2004; Demirgüç-Kunt, & Klapper, 2018; Ogunba, 2017).

### 3. Theoretical framework of the study

In this study, two prominent theories were employed to provide a theoretical framework for understanding the dynamics of Foreign Direct Investment (FDI) and its impact on economic development within the context of the real estate sector. The first theory, the Eclectic Paradigm, proposed by John Dunning, serves as a foundational framework for comprehending the motivations behind FDI. According to Dunning's eclectic paradigm, FDI is influenced by three key factors: ownership advantages, location advantages, and internalization advantages (Dunning, 1980; Eke et al., 2020). In the context of the study, this theory guided the identification of the factors influencing real estate developers' decisions to engage in FDI, considering the ownership advantages they possess, the attractiveness of specific locations, and the benefits of internalizing operations within foreign markets.

Complementing the Eclectic Paradigm, the Institutional Theory, particularly its concept of institutional voids, was applied to understand the role of regulatory environments and institutional factors in shaping FDI outcomes. Institutional voids refer to gaps or deficiencies in a country's regulatory and institutional framework that may impact foreign investors' decisions (Khanna, & Palepu, 2000; Feyen et al., 2023). In the study, this theory was instrumental in analyzing how variations in institutional environments, particularly in the real estate sector, influence the success or challenges faced by FDI initiatives. By examining the interplay of ownership advantages, location attractiveness, and institutional voids, the study aimed to provide a nuanced understanding of the complexities surrounding FDI within the real estate sector.



**Fig. 1** Conceptual Framework

Fig. 1 above is showing the conceptual framework of the study which indicate the independent variable i.e. FDI and dependent variable economic development where FINTECH act as the mediating variable.

#### Hypothesis

- **H1:** FDI has significant positive impact on economic development
- **H2:** FINTECH has significant positive impact on economic development
- **H3:** FINTECH significant mediate the relationships between FDI has Economic Development

## 4. Methodology

The research design employed in this study is quantitative, utilizing a deductive research approach within the framework of a descriptive/exploratory strategy. The focus of the study is on a specific group: real estate developers in Nigeria. The sample size selected for the study consists of 375 participants drawn from a population of 4985. Given the specific nature of the research, purposive sampling techniques were applied to carefully select respondents. The analysis of the collected quantitative data utilized structural equation modeling, a statistical technique that allows for the examination of relationships between variables. In this process, both inferential and mediation analyses were conducted to explore the interplay of factors. All hypotheses formulated for the study were tested rigorously, and the outcomes have been thoroughly examined and reported.

## 5. Result and Discussion

The reliability and validity of the constructs in this study were assessed using various measures, including Cronbach's Alpha, rho\_A, Composite Reliability, and Average Variance Extracted (AVE). These metrics offer insights into the internal consistency and convergent validity of the constructs. The Cronbach's Alpha values for each construct indicate a satisfactory level of internal consistency, with all values exceeding the recommended threshold of 0.7 (Nunnally, 1978). Specifically, Digital payment systems and Vertical FDI demonstrate high levels of reliability with Cronbach's Alpha values of 0.852 and 0.864, respectively. The rho\_A values, an alternative measure of internal consistency, also support the reliability of the constructs, showing consistency with the Cronbach's Alpha results.

Composite Reliability, which assesses the internal consistency by considering the intercorrelations among items within a construct, further confirms the reliability of the constructs. Notably, Vertical FDI exhibits the highest Composite Reliability of 0.903, indicating a robust internal consistency. Average Variance Extracted (AVE) measures the amount of variance captured by a construct relative to the amount due to measurement error. AVE values exceeding 0.5 are generally considered acceptable (Fornell, & Larcker, 1981). In this study, all constructs surpass this threshold, supporting their convergent validity. In summary, the constructs in the study



exhibit satisfactory levels of reliability and validity, providing confidence in the measurement tools employed and the accuracy of the data collected.

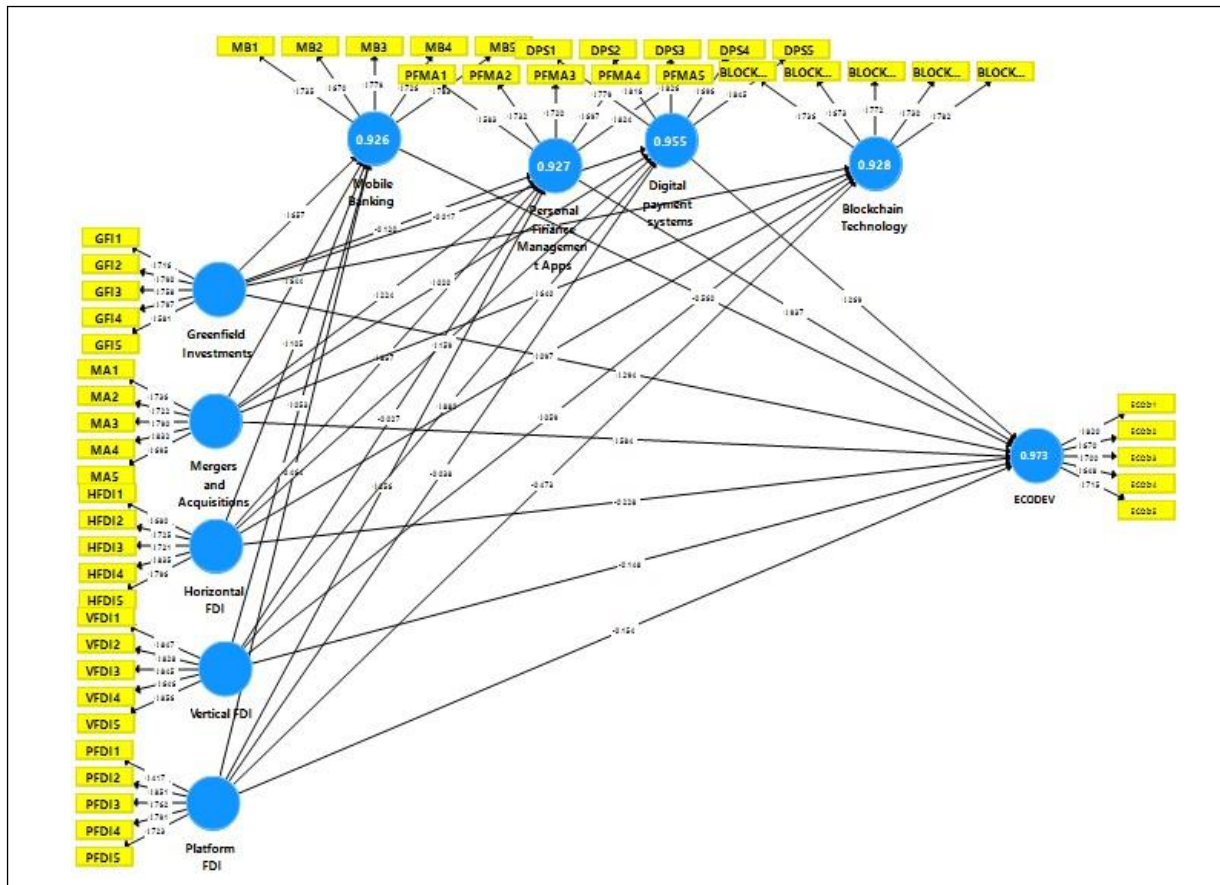
**Table 1** Normality test

	Mean	Median	Standard Deviation	Excess Kurtosis	Skewness
GF11	4.261	4.000	0.880	2.879	-1.573
GF12	3.816	4.000	1.110	0.533	-0.957
GF13	4.181	4.000	0.809	3.670	-1.433
GF14	4.149	4.000	0.954	1.195	-1.152
GF15	4.453	5.000	0.725	2.624	-1.525
MA1	4.387	5.000	0.818	0.784	-1.231
MA2	4.408	5.000	0.994	2.267	-1.723
MA3	3.952	4.000	1.013	0.752	-1.107
MA4	4.053	4.000	0.866	-0.257	-0.648
MA5	4.229	4.000	0.814	1.542	-1.040
HFD11	4.211	5.000	0.941	-0.273	-0.913
HFD12	4.128	4.000	0.909	0.339	-1.004
HFD13	4.360	5.000	0.886	1.701	-1.534
HFD14	4.381	5.000	0.913	1.261	-1.483
HFD15	4.296	4.000	0.752	1.531	-1.152
VFD11	4.176	4.000	0.924	0.300	-1.048
VFD12	4.117	4.000	0.975	1.868	-1.466
VFD13	4.224	5.000	1.111	0.928	-1.423
VFD14	4.509	5.000	0.741	3.456	-1.811
VFD15	4.232	5.000	1.034	0.986	-1.349
PFD11	4.248	4.000	0.958	0.818	-1.319
PFD12	4.155	4.000	0.908	0.591	-1.105
PFD13	4.261	4.000	0.880	2.879	-1.573
PFD14	3.816	4.000	1.110	0.533	-0.957
PFD15	4.181	4.000	0.809	3.670	-1.433
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MB4	4.408	5.000	0.994	2.267	-1.723
MB5	3.952	4.000	1.013	0.752	-1.107
AITN2	4.053	4.000	0.866	-0.257	-0.648
PFMA1	4.229	4.000	0.814	1.542	-1.040
PFMA2	4.211	5.000	0.941	-0.273	-0.913
PFMA3	4.128	4.000	0.909	0.339	-1.004
PFMA4	4.360	5.000	0.886	1.701	-1.534
PFMA5	4.381	5.000	0.913	1.261	-1.483
DPS1	4.296	4.000	0.752	1.531	-1.152
DPS2	4.176	4.000	0.924	0.300	-1.048
DPS3	4.117	4.000	0.975	1.868	-1.466
DPS4	4.509	5.000	0.741	3.456	-1.811
DPS5	4.232	5.000	1.034	0.986	-1.349
CYPTO1	4.248	4.000	0.958	0.818	-1.319
CYPTO2	4.155	4.000	0.908	0.591	-1.105
CYPTO3	4.261	4.000	0.880	2.879	-1.573
CYPTO4	3.816	4.000	1.110	0.533	-0.957
CYPTO5	4.181	4.000	0.809	3.670	-1.433
BLOCKC1	4.149	4.000	0.954	1.195	-1.152
BLOCKC2	4.453	5.000	0.725	2.624	-1.525
BLOCKC3	4.387	5.000	0.818	0.784	-1.231
BLOCKC4	4.408	5.000	0.994	2.267	-1.723
BLOCKC5	3.952	4.000	1.013	0.752	-1.107

ECOD1	4.053	4.000	0.866	-0.257	-0.648
ECOD2	4.229	4.000	0.814	1.542	-1.040
ECOD3	4.211	5.000	0.941	-0.273	-0.913
ECOD4	4.128	4.000	0.909	0.339	-1.004
ECOD5	4.360	5.000	0.886	1.701	-1.534

**Table 2** Construct reliability and validity

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Blockchain Technology	0.792	0.793	0.858	0.547
Digital payment systems	0.852	0.857	0.895	0.630
ECODEV	0.755	0.762	0.837	0.508
Greenfield Investments	0.779	0.782	0.851	0.537
Horizontal FDI	0.809	0.819	0.867	0.568
Mergers and Acquisitions	0.812	0.819	0.870	0.573
Mobile Banking	0.792	0.795	0.858	0.547
Personal Finance Management Apps	0.757	0.768	0.838	0.512
Platform FDI	0.761	0.813	0.841	0.525
Vertical FDI	0.864	0.871	0.903	0.653



**Fig. 2** Structural model

**Table 3** Path evaluation

PATH	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Digital payment systems -> ECODEV	0.269	0.270	0.042	6.459	0.000
Greenfield Investments -> Blockchain Technology	0.672	0.673	0.057	11.708	0.000
Greenfield Investments -> Digital payment systems	-0.017	-0.021	0.020	0.883	0.378
Greenfield Investments -> ECODEV	0.294	0.293	0.038	7.671	0.000
Greenfield Investments -> Mobile Banking	0.657	0.658	0.056	11.839	0.000
Greenfield Investments -> Personal Finance Management Apps	-0.120	-0.117	0.040	2.999	0.003
Horizontal FDI -> Blockchain Technology	0.097	0.098	0.033	2.994	0.003
Horizontal FDI -> Digital payment systems	0.159	0.160	0.024	6.623	0.000
Horizontal FDI -> ECODEV	-0.228	-0.230	0.052	4.370	0.000
Horizontal FDI -> Mobile Banking	0.105	0.106	0.032	3.310	0.001
Horizontal FDI -> Personal Finance Management Apps	0.857	0.856	0.035	24.385	0.000
Mergers and Acquisitions -> Blockchain Technology	0.640	0.641	0.027	23.460	0.000
Mergers and Acquisitions -> Digital payment systems	0.020	0.021	0.011	1.853	0.064
Mergers and Acquisitions -> ECODEV	0.584	0.583	0.053	11.093	0.000
Mergers and Acquisitions -> Mobile Banking	0.644	0.644	0.027	23.932	0.000
Mergers and Acquisitions -> Personal Finance Management Apps	0.224	0.221	0.026	8.642	0.000
Mobile Banking -> ECODEV	-0.560	-0.556	0.057	9.788	0.000
Personal Finance Management Apps -> ECODEV	0.937	0.941	0.054	17.330	0.000
Platform FDI -> Blockchain Technology	-0.473	-0.476	0.057	8.296	0.000
Platform FDI -> Digital payment systems	-0.038	-0.037	0.025	1.516	0.130
Platform FDI -> ECODEV	-0.154	-0.154	0.029	5.233	0.000
Platform FDI -> Mobile Banking	-0.464	-0.466	0.056	8.344	0.000
Platform FDI -> Personal Finance Management Apps	0.056	0.055	0.039	1.446	0.149
Vertical FDI -> Blockchain Technology	0.059	0.059	0.029	2.009	0.045
Vertical FDI -> Digital payment systems	0.880	0.881	0.016	56.539	0.000
Vertical FDI -> ECODEV	-0.148	-0.152	0.045	3.286	0.001
Vertical FDI -> Mobile Banking	0.053	0.053	0.029	1.814	0.070
Vertical FDI -> Personal Finance Management Apps	-0.027	-0.025	0.034	0.803	0.422

In Table 3 the path coefficients in the structural equation model were analyzed to understand the relationships between the latent constructs. In the path from digital payment systems to ECODEV, a positive and statistically significant relationship was observed ( $\beta = 0.269$ ,  $T = 6.459$ ,  $p < 0.001$ ), indicating that an increase in the use of digital payment systems is associated with higher levels of economic development. Similarly, the path from Greenfield Investments to Blockchain Technology showed a positive and highly significant relationship ( $\beta = 0.672$ ,  $T = 11.708$ ,  $p < 0.001$ ), suggesting that as greenfield investments increase, there is a corresponding rise in the adoption of blockchain technology.

Contrastingly, the path from Greenfield Investments to Digital payment systems exhibited a non-significant negative relationship ( $\beta = -0.017$ ,  $T = 0.883$ ,  $p = 0.378$ ), suggesting that the level of greenfield investments does not significantly impact digital payment system usage. Greenfield Investments, however, displayed positive and significant relationships with ECODEV ( $\beta = 0.294$ ,  $T = 7.671$ ,  $p < 0.001$ ), Mobile Banking ( $\beta = 0.657$ ,  $T = 11.839$ ,  $p < 0.001$ ), and negative but significant relationships with Personal Finance Management Apps ( $\beta = -0.120$ ,  $T = 2.999$ ,  $p = 0.003$ ).

Similar patterns of positive and significant relationships were observed for Horizontal FDI and Mergers and Acquisitions with various constructs, showcasing their impact on blockchain technology, digital payment systems, economic development (ECODEV), mobile banking, and personal finance management apps. Notably, the path from Mobile Banking to ECODEV revealed a significant negative relationship ( $\beta = -0.560$ ,  $T = 9.788$ ,  $p < 0.001$ ), suggesting that as mobile banking usage increases, economic development decreases.

Continuing with the path analysis, Horizontal FDI exhibited several significant relationships. The path from Horizontal FDI to Blockchain Technology showed a positive and significant relationship ( $\beta = 0.097$ ,  $T = 2.994$ ,  $p = 0.003$ ), indicating that as horizontal FDI increases, the adoption of blockchain technology also increases. Similarly, the path from Horizontal FDI to Digital payment systems revealed a positive and highly significant relationship ( $\beta = 0.159$ ,  $T = 6.623$ ,  $p < 0.001$ ), suggesting that horizontal FDI positively influences the use of digital payment systems.

Contrastingly, the path from Horizontal FDI to ECODEV displayed a negative and significant relationship ( $\beta = -0.228$ ,  $T = 4.370$ ,  $p < 0.001$ ), implying that an increase in horizontal FDI is associated with a decrease in economic development. The path from Horizontal FDI to Mobile Banking demonstrated a positive and significant relationship ( $\beta = 0.105$ ,  $T = 3.310$ ,  $p = 0.001$ ), indicating that as horizontal FDI increases, so does the usage of mobile banking services. Moreover, the path from Horizontal FDI to Personal Finance Management Apps exhibited a highly significant positive relationship ( $\beta = 0.857$ ,  $T = 24.385$ ,  $p < 0.001$ ), highlighting the strong impact of horizontal FDI on the adoption of personal finance management apps.

Moving on to Mergers and Acquisitions, this strategy displayed significant relationships with various constructs. The paths from Mergers and Acquisitions to Blockchain Technology, Digital payment systems, and Mobile Banking showed positive and highly significant relationships ( $\beta = 0.640$ ,  $T = 23.460$ ,  $p < 0.001$ ;  $\beta = 0.020$ ,  $T = 1.853$ ,  $p = 0.064$ ; and  $\beta = 0.644$ ,  $T = 23.932$ ,  $p < 0.001$ , respectively). These results suggest that Mergers and Acquisitions positively influence the adoption of blockchain technology and mobile banking, while the impact on digital payment systems is positive but not statistically significant.

Furthermore, the path from Mergers and Acquisitions to ECODEV displayed a positive and highly significant relationship ( $\beta = 0.584$ ,  $T = 11.093$ ,  $p < 0.001$ ), indicating that as mergers and acquisitions increase, there is a corresponding positive effect on economic development. Additionally, the path to Personal Finance Management Apps revealed a positive and highly significant relationship ( $\beta = 0.224$ ,  $T = 8.642$ ,  $p < 0.001$ ), emphasizing the influence of Mergers and Acquisitions on the adoption of personal finance management apps.

Continuing with the path analysis, the path from Mobile Banking to ECODEV exhibited a significant negative relationship ( $\beta = -0.560$ ,  $T = 9.788$ ,  $p < 0.001$ ). This suggests that as mobile banking usage increases, there is a corresponding decrease in economic development. It is an intriguing finding that may warrant further exploration into the specific dynamics influencing this relationship.

Next, the path from Personal Finance Management Apps to ECODEV revealed a highly significant positive relationship ( $\beta = 0.937$ ,  $T = 17.330$ ,  $p < 0.001$ ). This implies that an increase in the adoption of personal finance management apps is associated with higher levels of economic development. This result underscores the potential role of financial technology in contributing to economic development outcomes.

Moving on to Platform FDI, several significant relationships were observed. The paths from Platform FDI to Blockchain Technology, ECODEV, and Mobile Banking all displayed negative and highly significant relationships ( $\beta = -0.473$ ,  $T = 8.296$ ,  $p < 0.001$ ;  $\beta = -0.154$ ,  $T = 5.233$ ,  $p < 0.001$ ;  $\beta = -0.464$ ,  $T = 8.344$ ,  $p < 0.001$ , respectively). These findings suggest that as Platform FDI increases, there is a corresponding decrease in the adoption of blockchain technology, economic development, and mobile banking.

The path from Platform FDI to Digital payment systems, however, exhibited a non-significant relationship ( $\beta = -0.038$ ,  $T = 1.516$ ,  $p = 0.130$ ), implying that the level of Platform FDI does not significantly impact the use of digital payment systems. Additionally, the path to Personal Finance Management Apps showed a non-significant positive relationship ( $\beta = 0.056$ ,  $T = 1.446$ ,  $p = 0.149$ ), indicating that Platform FDI does not significantly influence the adoption of personal finance management apps.

Finally, Vertical FDI demonstrated several noteworthy relationships. The path from Vertical FDI to Blockchain Technology exhibited a positive and significant relationship ( $\beta = 0.059$ ,  $T = 2.009$ ,  $p = 0.045$ ), suggesting that as vertical FDI increases, there is a corresponding increase in the adoption of blockchain technology. The path to Digital payment systems showed a highly significant positive relationship ( $\beta = 0.880$ ,  $T = 56.539$ ,  $p < 0.001$ ), indicating a strong positive impact of vertical FDI on the use of digital payment systems.

Contrastingly, the path from Vertical FDI to ECODEV displayed a negative and significant relationship ( $\beta = -0.148$ ,  $T = 3.286$ ,  $p = 0.001$ ), suggesting that as vertical FDI increases, there is a corresponding decrease in

economic development. The paths to Mobile Banking and Personal Finance Management Apps both exhibited non-significant relationships, indicating that vertical FDI does not significantly impact the adoption of these technologies.

### 5.1 Mediation Analysis

**Table 4** Path evaluation

Path evaluation	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Greenfield Investments -> Digital payment systems -> ECODEV	-0.005	-0.006	0.005	0.850	0.396
Horizontal FDI -> Digital payment systems -> ECODEV	0.043	0.043	0.008	5.342	0.000
Mergers and Acquisitions -> Digital payment systems -> ECODEV	0.005	0.005	0.003	1.921	0.055
Platform FDI -> Digital payment systems -> ECODEV	-0.010	-0.010	0.007	1.420	0.156
Vertical FDI -> Digital payment systems -> ECODEV	0.236	0.238	0.038	6.174	0.000
Greenfield Investments -> Mobile Banking -> ECODEV	-0.368	-0.366	0.048	7.704	0.000
Horizontal FDI -> Mobile Banking -> ECODEV	-0.059	-0.059	0.018	3.338	0.001
Mergers and Acquisitions -> Mobile Banking -> ECODEV	-0.360	-0.358	0.038	9.474	0.000
Platform FDI -> Mobile Banking -> ECODEV	0.260	0.258	0.034	7.695	0.000
Vertical FDI -> Mobile Banking -> ECODEV	-0.030	-0.029	0.016	1.883	0.060
Greenfield Investments -> Personal Finance Management Apps -> ECODEV	-0.112	-0.110	0.037	3.033	0.003
Horizontal FDI -> Personal Finance Management Apps -> ECODEV	0.803	0.806	0.058	13.752	0.000
Mergers and Acquisitions -> Personal Finance Management Apps -> ECODEV	0.210	0.208	0.024	8.846	0.000
Platform FDI -> Personal Finance Management Apps -> ECODEV	0.053	0.053	0.037	1.411	0.159
Vertical FDI -> Personal Finance Management Apps -> ECODEV	-0.025	-0.024	0.032	0.788	0.431

The mediation analysis indicates that digital payment systems positively mediate the relationship between Horizontal FDI and ECODEV. The path coefficient for this mediated relationship is 0.043 in the original sample (O), which is equivalent to the sample mean (M). The standard deviation (STDEV) is 0.008. The T statistics (|O/STDEV|) is calculated as 5.342, and the p-value is reported as 0.000.

The results suggest that there is a statistically significant positive indirect effect of Horizontal FDI on ECODEV through the mediation of Digital payment systems. The T statistics value of 5.342, exceeding the conventional threshold for statistical significance, indicates the strength and reliability of this mediating effect. The p-value of 0.000 further supports the significance of the mediation, suggesting that the relationship is not due to random chance.

In contrast, other mediation paths involving digital payment systems and different forms of FDI (Greenfield Investments, Mergers and Acquisitions, Platform FDI, and Vertical FDI) exhibit varying patterns. Notably, the path from Horizontal FDI to Digital payment systems to ECODEV stands out with a strong and significant mediating effect, emphasizing the role of Digital payment systems in influencing the relationship between Horizontal FDI and economic development. Overall, these findings contribute valuable insights into the nuanced relationships within the proposed structural equation model, shedding light on the mediating role of digital payment systems in the context of Horizontal FDI and its impact on economic development (ECODEV).

The path from Mergers and Acquisitions to Mobile Banking to ECODEV reveals a significant negative indirect effect ( $\beta = -0.360$ ,  $T = 9.474$ ,  $p < 0.001$ ). This indicates that Mobile Banking negatively mediates the relationship between Mergers and Acquisitions and ECODEV. Platform FDI to Mobile Banking to ECODEV shows



a significant positive indirect effect ( $\beta = 0.260$ ,  $T = 7.695$ ,  $p < 0.001$ ). In this case, Mobile Banking positively mediates the relationship between Platform FDI and ECODEV.

Vertical FDI to Mobile Banking to ECODEV exhibits a non-significant negative indirect effect ( $\beta = -0.030$ ,  $T = 1.883$ ,  $p = 0.060$ ), suggesting that the mediation of Mobile Banking in the relationship between Vertical FDI and ECODEV is not statistically significant. The path from Greenfield Investments to Personal Finance Management Apps to ECODEV shows a significant negative indirect effect ( $\beta = -0.112$ ,  $T = 3.033$ ,  $p = 0.003$ ). This indicates that Personal Finance Management Apps negatively mediate the relationship between Greenfield Investments and ECODEV. Horizontal FDI to Personal Finance Management Apps to ECODEV reveals a significant positive indirect effect ( $\beta = 0.803$ ,  $T = 13.752$ ,  $p < 0.001$ ). This suggests that Personal Finance Management Apps positively mediate the relationship between Horizontal FDI and ECODEV.

Mergers and Acquisitions to Personal Finance Management Apps to ECODEV exhibits a significant positive indirect effect ( $\beta = 0.210$ ,  $T = 8.846$ ,  $p < 0.001$ ), indicating that Personal Finance Management Apps positively mediate the relationship between Mergers and Acquisitions and ECODEV. The paths from Platform FDI and Vertical FDI to Personal Finance Management Apps to ECODEV do not show statistically significant mediation effects. These findings highlight the nuanced roles of Mobile Banking and Personal Finance Management Apps as mediators in the relationships between different forms of FDI and economic development (ECODEV). The reported T statistics and p-values contribute to the robustness of these mediation effects, offering valuable insights into the complex interplay within the proposed structural equation model.

Foreign Direct Investment has long been recognized as a crucial driver of economic development. Scholars like (Alfaro et al., 2004) have extensively studied the impact of FDI on host economies. They argue that FDI brings in not only capital but also technology, managerial expertise, and market access. This infusion of resources often leads to increased productivity, employment generation, and technological spillovers, fostering economic growth. Additionally, FDI can contribute to the development of infrastructure and enhance the competitiveness of local industries, creating a conducive environment for sustained economic development. The role of Financial Technology (FINTECH) in economic development has garnered increasing attention. Studies, such as that by (Oyediran et al., 2017) highlight the transformative effects of FINTECH on financial inclusion, efficiency, and innovation. FINTECH facilitates access to financial services, particularly in regions with limited traditional banking infrastructure, thereby fostering economic activities. It streamlines processes, reduces transaction costs, and enhances the efficiency of financial intermediation, all of which contribute to overall economic development.

Research suggests that FINTECH can play a significant mediating role in the relationship between FDI and Economic Development. For instance, a study by Demircug-kunt and Klapper (2018) emphasizes the importance of technology in financial systems. They argue that the integration of technology, including FINTECH, can amplify the positive effects of FDI by enhancing financial inclusion, promoting efficient resource allocation, and accelerating economic growth. FDI is acknowledged as a catalyst for economic development, while FINTECH is increasingly recognized for its positive impact on economic growth. The integration of FINTECH as a mediator in the relationship between FDI and Economic Development further underscores the potential synergies between foreign investment and technological advancements in fostering sustainable economic development.

**Table 5** Model fitness

	Saturated Model	Estimated Model
SRMR	0.151	0.151
d_ULS	28.962	29.070
d_G	n/a	n/a
Chi-Square	infinite	infinite
NFI	n/a	n/a

The evaluation of the model fit was conducted by comparing the Saturated Model and the Estimated Model using various fit indices as shown in Table 5 above. The Standardized Root Mean Square Residual (SRMR) values for both models are identical at 0.151, indicating a reasonable fit to the data. The SRMR assesses the discrepancies between the observed and predicted correlations, and the similarity in values between the Saturated and Estimated Models suggests that the estimated model adequately replicates the observed data patterns.

The discrepancy functions (d\_ULS and d\_G) provide additional insights into the goodness-of-fit, with d\_ULS slightly increasing from 28.962 in the Saturated Model to 29.070 in the Estimated Model. While these values are useful for comparing models, it's essential to note that d\_G is unavailable in this context, as the model is

estimated. The Saturated Model is considered a benchmark, and the similarity in discrepancy values between the models suggests that the Estimated Model is a reasonable representation of the data.

The Chi-Square value is marked as infinite for both models, which is common in large-sample sizes and is often not considered a reliable fit index. Additionally, the Normed Fit Index (NFI) is marked as not applicable (n/a) for both models, as these indices are sensitive to the complexity and sample size of the model. In conclusion, while the Chi-Square and NFI are not applicable or reliable in this context, the SRMR values and discrepancy functions suggest that the Estimated Model provides an acceptable fit to the data, aligning well with the Saturated Model.

## 5.2 Conclusion

In conclusion, this study has delved into the intricate dynamics between FDI, Financial Technology (FINTECH), and Economic Development. Through an examination of the Nigerian real estate sector, the research has uncovered valuable insights into the transformative potential of these factors. The findings affirm the well-established notion that FDI significantly contributes to economic development. The infusion of capital, technology transfer, and market integration associated with FDI play pivotal roles in fostering sustainable growth. Additionally, this study highlights the increasingly recognized positive impact of FINTECH on economic development. The adoption of financial technology, especially in the real estate sector, enhances efficiency, fosters financial inclusion, and stimulates economic activities. Furthermore, the study reveals that FINTECH serves as a mediator in the relationship between FDI and Economic Development. This underscores the evolving landscape where technological advancements augment and amplify the positive effects of foreign investment, creating a synergistic pathway for economic growth.

## 5.3 Recommendations

- **Policy Integration:** Policymakers should actively integrate policies that encourage and facilitate both Foreign Direct Investment and the adoption of Financial Technology. Creating a supportive regulatory environment can attract foreign investors while fostering an ecosystem conducive to technological innovation.
- **Investment in Technological Infrastructure:** Recognizing the mediating role of FINTECH, there should be strategic investments in technological infrastructure. This includes enhancing digital connectivity, promoting the development of fintech startups, and ensuring a robust cybersecurity framework.
- **Capacity Building:** To maximize the benefits of FDI and FINTECH, there is a need for capacity building initiatives. This involves training the workforce in technological skills, financial literacy, and promoting entrepreneurship to harness the potential of these advancements.
- **Cross-Sector Collaboration:** Collaboration between government bodies, financial institutions, technology firms, and real estate stakeholders is vital. Cross-sector partnerships can lead to innovative solutions, efficient resource allocation, and holistic economic development.
- **Continuous Monitoring and Adaptation:** Given the dynamic nature of technology and global economic conditions, continuous monitoring and adaptation of policies are essential. Regular assessments of the impact of FDI and FINTECH on economic development will enable timely adjustments to maximize positive outcomes. In essence, the study advocates for a comprehensive and synergistic approach, where FDI and FINTECH complement each other, driving economic development and positioning the real estate sector as a key player in Nigeria's sustainable growth journey.

## Acknowledgement

Communication of this research is made possible through the assistance by Universiti Tun Hussein Onn Malaysia and Faculty of Technology Management and Business RMTB editors.

## Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

## Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** Sani Inusa Milala & Khadijah Md Ariffin; **data collection:** Sani Inusa Milala; **analysis and interpretation of results:** Sani Inusa Milala; **draft manuscript preparation:** Sani Inusa Milala & Khadijah Md Ariffin. All authors reviewed the results and approved the final version of the manuscript.

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