Effect of Financial Technology (FinTech) on Nigeria's Development Amid Covid - 19 Recovery

Inusa, Auwalu[1], Shuaib, Kabir Musa[2], Gambo, Bello Bichi[3], Shehu, Ummi Rahma[4] & Shehu, Usman Yahaya[5]

[1]International Centre of Excellence for Rural Finance and Entrepreneurship, Ahamdu Bello University, Zaria - Nigeria. aygdanzaki@yahoo.com, +2348069486493
[2]Department of Accounting Education, Federal College of Education (Tech) Bichi, Kano-Nigeria
[3]Department of Metalwork Technology, Federal College of Education (Tech) Bichi, Kano-Nigeria
[4]Department of Business Administration and Entrepreneurship, Bayero University, Kano, Nigeria
[5]Other Financial Institutions Supervision Department, Central Bank of Nigeria

Abstract

Many developing countries faced challenges related to digital financial services during the COVID-19 pandemic, as lockdowns and other restrictions amid protocols to curtail the spread of the dreaded virus. Studies on FinTech in developing countries like Nigeria are essential due to the effect of globalization and the rising influence of digital markets worldwide. Therefore, the study examines the effects of financial technology on Nigeria's national development amid COVID-19 recovery. 415 banks' customers were surveyed to determine the effects of fintech on national development. PLS-SEM was employed to analyze the data using Smart PLS3. The findings reveal that the relationship between sustainability and national development is positive and significant. Similarly, the findings indicate a positive and significant relationship between transaction efficiency and national development. It is concluded that FinTech provides financial channels that carry every citizen and reduce the poverty rate and income inequality which all translate to national development. It is recommended that policymakers continue to provide the enabling environment, including policy direction and regulation, to enhance FinTech development in the country.

Keywords: FinTech, Trust, National Development, Innovation, Transformation.

Introduction

There is growing concern about the increasing demand for digital financial products and services worldwide. Many developing countries faced challenges related to digital financial services during the COVID-19 pandemic, as lockdowns and other restrictions amid protocols to curtail the spread of the dreaded virus. Financial technology, also known as FinTech, is a system that assesses and produces finance. Thus, the fintech financial system combines technology and trading systems in various markets (Freedman, 2006; Purnomo & Khalda, 2019). The literature described national development as a country's general development encompassing social, political, religious and economic advancement. National development is associated with growth and development changes that include social, cultural, and economic (Georgewill, 2020).

Many studies in finance and economics literature have used fintech as an independent variable on different related constructs as dependent variables. For example, (Bodie & Merton, 1995) examined the implementation of fintech on macro stabilization policies. Similarly, a related study examined the effect of fintech on banks. At the same time, Purnomo & Khalda (2019) investigated the influence of fintech on financial institutions. The current study focused on financial technology from Nigeria's national development perspective. However, as demand for online financial services increased during the COVID-19 pandemic, particularly in developing

Article published on boldscholar.com. Verify this document by clicking here

countries, like Nigeria, financial experts are exploring possibilities on how fintech can improve economic growth. Some scholars found that greater digital financial innovations and payment inclusion are associated with increased fintech consumer financing (Sadigov et al., 2020).

Studies established that the fintech industry boosts annual economic growth by 2.2%, focusing on innovation in financial services. In developing economies, most payment methods rely mostly on cash, while in advanced economies, digital payment systems are mostly used. Hence, this is the key to accelerating growth in developing economies (Akinola, 2021; Sadigov et al., 2020). Current trends indicate that where there is already a culture of financial services but limited access to traditional financial institutions, usage of digital banking services appears to be higher in those contexts. Thus, traditional providers face increased competition in those regions, and inefficiencies in banks' operations are linked to mobile money services (Ayriyan, 2021).

It is significant to reveal that studies on fintech in developing countries like Nigeria are essential due to the effect of globalization and the rising influence of digital markets worldwide. As mentioned, developing countries still struggle to catch up with digital financial services due to poor internet access and connectivity occasioned by inadequate internet infrastructures. However, fintech enhances growth in developing countries and offers economic freedom. In recent times, ountries with the most positive impacts on their economies from financial services include the United States, Mexico, China, Japan, and India. The success of the countries relies on high penetration of cell phones, widespread internet connection, and innovative ways to use mobile technology (Boamah et al., 2021; Georgewill, 2020).

National development is essential to any country's growth and sustenance. Thus, effective strategies for enhancing meaningful development must be developed. Hence, greater infrastructural changes, productivity and inclusivity are concrete results of financial technology. The factors mentioned above reduce poverty and gender inequality, strengthening a country's workforce. Thus, providing better access to financial flows for both startups and businesses could reduce the gap between social classes and different sectors (Ayriyan, 2021). Based on the preceding discussion, the study examines the effects of financial technology on Nigeria's national development amid COVID-19 recovery.

Literature review

Financial technology (FinTech)

Fintech, also known as financial and technology, is defined as using technology to convey financial responses in the financial sector. Previously, for the past two decades, the continued application and spread of the Internet and online business and advancements in information technology (IT) has significantly transformed global economic activity (Putri Farhan Najwa, 2018). Moreover, the effective use of fintech may affect other macroeconomic factors, such as the availability of labour force due to advancements in technology which reduces the cost of machinery and equipment and thus motivates businesses to shift from human labor to capital (Deng et al., 2019). Thus, studies described fintech as a breakthrough innovation where companies integrate technological innovations with financial services (Dorfleitner et al., 2017). More specifically, "fintech" refers to innovative financial solutions that use technology in new and creative ways (Kammoun et al., 2020). Even though there is no universal definition, financial technology is regarded as reshaping the financial services sector through new business models for wealth management, payments, lending, crowdfunding, and capital markets.

Article published on boldscholar.com. Verify this document by clicking here

According to Zavolokina et al. (2016), financial technology is not a stable and transparent concept that is well understood by academia and the media; instead, it is a living entity with a flexible and changing nature.

The proven ability of fintech to lower investment barriers has led to its widespread adoption across markets worldwide (Hong et al., 2020). Though, as mentioned earlier, the rate of adoption of fintech differs between advanced and emerging economies (Frost, 2020). Various fintech solutions are available for an extended consumer base, such as marketplace lending, peer-to-peer (P2P) lending, and other similar platforms (Hasan et al., 2021). On the other hand, emerging markets are seeing an increase in mobile payment–based financial technology services; for example, big-tech mobile payments account for 16% of the Chinese GDP (Frost et al., 2019). However, the adoption of mobile payment–based financial technology solutions is unclear (Flood et al., 2013).

National development

Although studies show that it is difficult to find a standard and unified definition of development, efforts have been made to describe development as a process that encompasses all efforts to improve the welfare of human existence in all aspects (Georgewill, 2020). Moreover, some of the indexes that measure development include education, healthcare, housing, equitable distribution of income and other essential services to improve individual and collective quality of life. Thus, development involves social, economic and political issues which pervade all facets of societal social life. (Gboyega, 2003).

National development, however, is about developing a nation's economic, social scientific, cultural and material development. Similarly, national development involves changes in growth and development, including social, cultural, and economic change, which means that a country can improve the social well-being of the people. The concept also entails socio-cultural transformation, urbanization, vertical and horizontal mobility, mass literacy, the emergence of customized occupational roles, and job opportunities (Umuru, 2002). Furthermore, the term national development means a change in a particular direction that experts regard as highly significant to the well-being of the entire society (Fagerlind & Saha, 1989). According to some scholars (Phillippon, 2019; Salampasis & Mention, 2018), FinTech's greatest advantage in terms of social development is its capacity to create a more just and equal society which promotes national development. The economy, the society and even the environment are important elements national development and evidence has shown that these elemnts are promoted by FinTech. However, some philosophers, planners, and social scientists link development with advancement in social structures in highly industrialized, educational, scientific, and technological countries (Rostow & Rostow, 1990).

Effects of COVID 19

The rapid and successive spread of COVID-19, particularly the late variants (Delta and Omicron) throughout the world, has resulted in an enormous and unprecedentedly difficult period in human history. It spread virally throughout the world, causing the global economy to contract (Enesi & Ibrahim, 2021). The outbreak of the COVID-19 pandemic has brought about changes globally. However, development encompasses the improvement in the conditions of the entire human existence (Georgewill, 2020), and the negative changes resulting from the effects of COVID-19 dwarf the scope of development indices. The effects include increased poverty, death rate, low food production, insecurity, and reduced foreign exchange inflow due to the stoppage of export and import of goods and services except for essential products. Other

Article published on boldscholar.com. Verify this document by clicking here

effects of the pandemic include lockdowns and restrictions in movement, changes from physical contact to online business operations and others (Enesi & Ibrahim, 2021).

Moreover, significant sectors of the economy seriously affected by the pandemic are aviation, education, hospitality and tourism, and the financial system. For example, according to Sept & March (2020), the COVID-19 pandemic has caused panic in the financial system, which led many markets to become highly volatile. Similarly, Akhtaruzzaman et al. (2021) argued that the COVID-19 pandemic has negatively impacted many financial and non-financial firms worldwide, as stock returns are trending downward. The multiplier effects of the pandemic would have long-term challenges on the overall national development even if the pandemic is eradicated (Busari & Jayeoba, 2021). To mitigate the impact of the pandemic, countries including Nigeria adopted financial technology to conduct financial transactions amid lockdowns and movement restrictions when the pandemic was raging. The restrictions and lockdown which led to the suspension of educational and recreational activities, temporary suspension of flights and airport operations were some of the few measures taken to stop the spread of COVID-19. These measures have accelerated the use of financial technologies for electronic payments, online shopping, and social media for normal business operations. People resorted to use online platforms to conduct business transactions.

Theoretical background and hypotheses development

The current study used two underpinning theories to explain the theoretical model developed by the researchers.

Theoretical review

Diffusion of innovation theory

The diffusion of innovations theory explains why and how participants adopt innovations in a social system and the user's characteristics (Rogers, 2010). The theory was developed in 1962 by E.M. Rogers and is concerned with innovation and its effects. Similarly, as a third object of study, the concept of financial innovation diffusion appears to have received more attention in the financial literature (Khraisha & Arthur, 2018). For example, Tufano's (1989) diffusion study is one of the most notable studies of financial innovation. Tufano discovered that innovation spreads through imitators who attempt to replicate profitable innovations introduced by banks. Studies also argued that the diffusion of financial innovation could spread quickly, especially regarding securities innovation (Cavanna, 1992). Thus, non-patentability, as a feature of financial innovations, is the primary reason for this rapid diffusion.

The diffusion of innovation concerns how something new passes from conception to use. The theory's basic premise is that people embrace new concepts or goods at various rates. Rogers contributed immensely to understanding the theory of innovation. Based on the preceding discussion, the innovation theory can explain the adoption of fintech on various financial services to achieve the desired level of development (Medlin, 2001; Parisot, 1995). The Theory explains that spread of innovations can have positive impact on the society. This means that diffusion of financial innovations can positively impact the banking sector, the customers, the financial institutions, the regulatory authorities and the society at large which in turn can drive overall national development. Therefore, the theory's postulations underpin the hypothesized relationships in this study between FinTech and national development.

Modernization theory

Among the commonly applied theory for nation-building is the modernization theory. After the Second World War, many scholars responded to nation-building and institution-building with modernization theory (Agbo, 2005). However, when Third World colonies began to demand

Article published on boldscholar.com. Verify this document by clicking here

political independence, the Western world became interested in modernization. This interest was primarily for Western politicians to show that the new countries that became independent could maintain development if they embraced Western strategies (Webster, 1990; Harrison, 1988;). Modernization theory arose in the early 1960s, primarily following David McClelland's (1961) work who was a social psychologist that attempted to explain differences in social and technological advancement between societies. However, proponents of modernization theory argued that society introduces innovations in education, develops infrastructure, institutions other economic establishments to mobilize capital, widens the scope of internal and external commerce, and encourages investment and establishment of highly modernized manufacturing companies (Rostow & Rostow, 1990).

According to modernization theory, information and technology transfer that is simple, straightforward, context-free, and doesn't upset the social and cultural norms already in place in poor countries is all that development requires (Herkenrath & Bornschier, 2003). The fact that much of the knowledge and technology essential to national development and competitiveness is found in the realm of proprietary knowledge creation also appears to be overlooked by modernization theory. Based on this assumption, therefore, FinTech is an essential requirement for national development. Thus, combining the two theories has underpinned the relationship between fintech and national development, as shown in figure 1.

Hypotheses development

Fintech and national development

The literature established that after a country becomes more technologically and financially literate with an inclusive population, the next stage is the overall infrastructural improvement that drives a growing economy. Financial technology enables government and business firms to run their operations efficiently and effectively. Thus, one transformative area where fintech enhances access to critical sectors such as education and healthcare is public services, where more innovative systems are being developed (Ayriyan, 2021).

Furthermore, many studies conducted an in-depth analysis of fintech from various perspectives with the conclusion that fintech promotes and also retards, in some way, economic growth and social development (Deng et al., 2019). Similarly, academia generally agrees that fintech significantly impacts economic growth (Malmendier, 2009). Financial technology associated with communications and data processing improves financial services' efficiency through enhanced processes (Fuster et al., 2019; Frame & White, 2014). Fintech helps accelerate technological progress in the future for economic growth and development (Meierrieks, 2014; Beck et al., 2016).

Evidence suggests that fintech significantly impacts social and environmental benefits (Popescu & Popescu, 2019). Scholars have confirmed that the main benefit of fintech in terms of social development is its ability to build a just and equitable society (Haddad & Hornuf, 2019; Sachse et al., 2012; Salampasis & Mention, 2018). However, many of these studies reviewed were conducted in western and major emerging countries of Asia due to their level of development in ICT. Developing countries like Nigeria still face challenges like financial literacy, financial inclusion, lack of internet access, and access to connectivity by poor internet infrastructural facilities. Similarly, the multidimensional construct of national development creates a gap on whether fintech can affect all the dimensions.

Furthermore, by providing cheap and adequate financing, fintech accelerates funds deployment to promote renewable energy and environmental infrastructure, which could lead to the

Article published on boldscholar.com. Verify this document by clicking here

protection and development of the ecology (Knuth, 2018). Also, FinTech also contributes significantly to employment and revenue generation in the country. Thus, all these are elements of national development. Based on the preceding discussion, the study suggests the following hypotheses:

H_{01}: Fintech is significantly associated with national development
H_{02}: Trust is significantly associated with national development
H_{03}: Transaction efficiency is significantly associated with national development
H_{04}: Sustainability is significantly associated with national development
H_{05}: Intention to use fintech is significantly associated with national development

Research model

In light of the preceding discussion based on established evidence from the literature reviewed and hypotheses developed, the study conceptualized the research model in figure 1. The model shows the relationship between fintech and national development. Fintech, the independent variable, has four dimensions (trust, transaction efficiency, sustainability, and intention to use fintech). In contrast, national development, the dependent variable, has six dimensions (political, scientific, cultural, economic, material, and social).

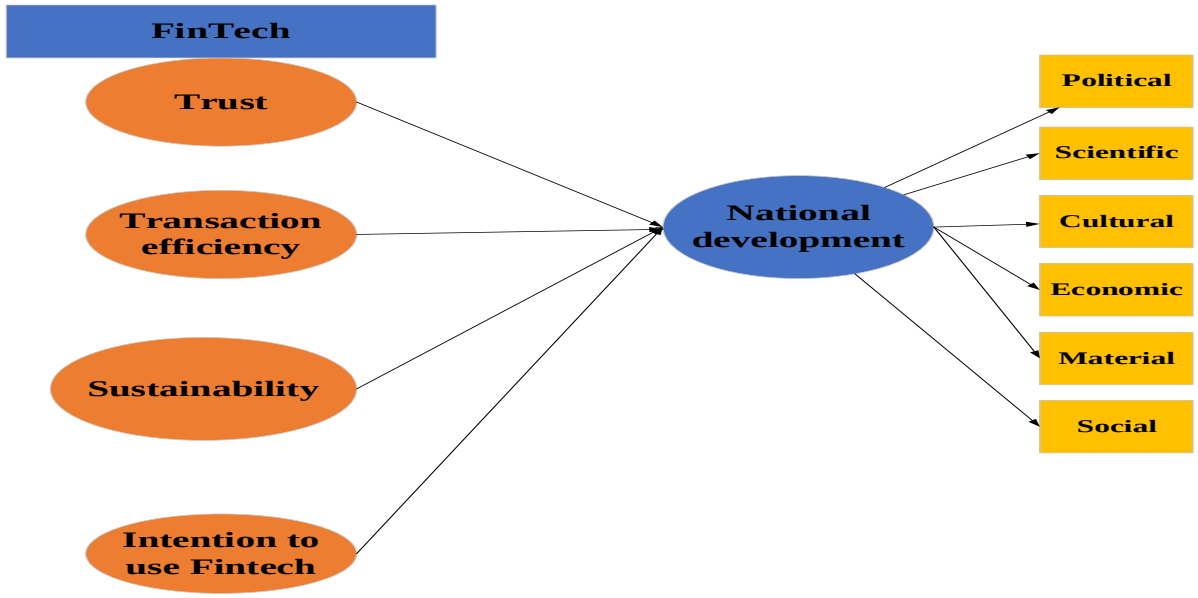

Figure 1: Research model

Methodology

The study adopted a cross-sectional design and collected survey data in the study area. The study area is Kano metropolitan, with a high population density and a concentration of small, medium-sized, and informal businesses. Three banks' customers were selected for data collection to determine the effects of fintech on national development. The population for the study is 2,370 bank customers. Krejcie & Morgan's (1970) table for determining sample size was used on 2,370 population. The sample size is 377, and 10% was added to compensate for non-response and missing values (Israel, 1992). That brings the number to 415 as the sample for the study. The sample frame was obtained from the banks, and probability random sampling was used. Thus, the respondents are selected randomly, and each member of the population has an equal chance of selection (Etikan & Bala, 2017). From the distributed questionnaire, 382 were returned, 51 were dropped because they were not filled correctly. The sample for analysis is 331, with an 80% response rate.

Article published on boldscholar.com. Verify this document by clicking here

Measurement of variables

The Fintech innovations measures were adapted from the study (Quevedo, 2019); it consists of trust (TRT), transaction efficiency (TEF), sustainability (STY), and intention to use Fintech (IFT) represented by four, three, three, and two items each. National development is adapted from Georgewill's (2020) study, consisting of political (PL), economic (ECO), social (SC), cultural (CL), scientific (SCT), and material (MTR) represented by four. Three, four, three, three, and four items each. A five-point Likert scale was used to measure the items, ranging from strongly agree (1) to strongly disagree (5).

Reliability and validity

This section presents the results of outer loadings, composite reliability, Cronbach's Alpha and AVE values for evaluating the measurement model. The decision criterion for outer loading is 0.70, which means that indicators with loadings below the threshold could be deleted as the deletion increases the reliability of the constructs under study (Hair et al., 2017). However, it was argued that even loadings of 0.4 could be considered reliable in some cases. For this model, as shown in figure 2, the AVE, composite reliability and Cronbach's Alpha values range from 0.66 to 0.90, indicating convergent validity.

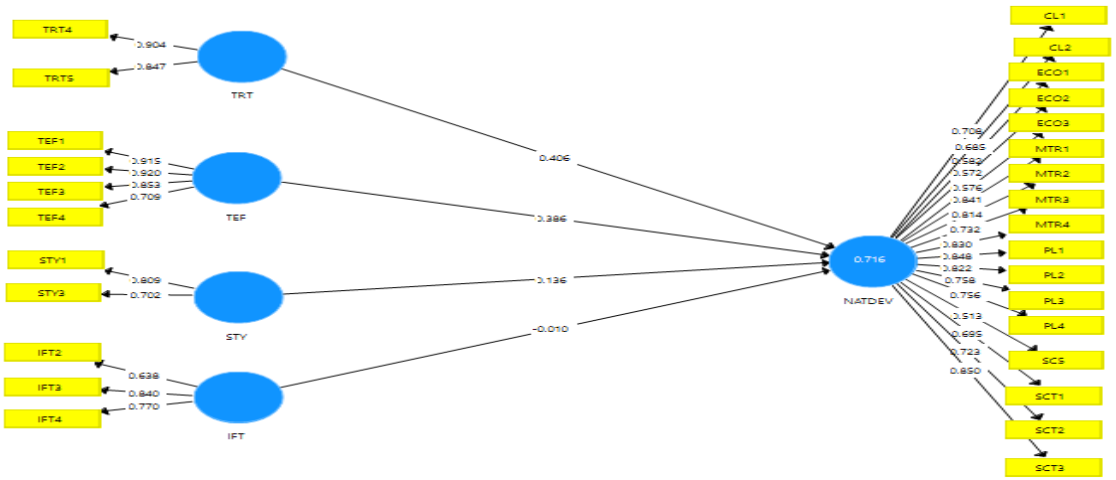

Figure 2: Measurement model

Figure 2 shows that three items (TRT1, TRT2 and TRT3) from the trust, two items (STY2 and STY4) from sustainability, and one item (IFT1) from intention to use fintech were deleted because their loadings were not up to 0.50 and to enhance their reliabilities. In addition, four items (SC1, SC2, SC3, and SC4) from social and one item (CL3) from cultural dimensions of national development were deleted to improve their reliabilities. To assess the discriminant validity of the constructs, we used the Fornell & Larcker (1981) criterion, which states that AVE's square root must be higher than the correlation between the dimensions. The square roots of AVEs are bolded on the diagonal.

Results and Discussions

Table 1: Fornell-Larcker Criterion

	IFT	NATDEV	STY	TEF	TRT
IFT	**0.754**				
NATDEV	0.378	**0.832**			
STY	0.198	0.559	**0.758**		
TEF	0.460	0.816	0.573	**0.877**	
TRT	0.450	0.809	0.501	0.854	**0.876**

Article published on boldscholar.com. Verify this document by clicking here

Table 1 presents the discriminant validity of the constructs under review. The table shows that the highest correlation coefficient for national development is 0.809 while the square root of AVE stands at 0.832; for intention to use fintech (IFT), the correlation coefficient is 0.460, while the AVE is 0.754. The correlation coefficient for sustainability (STY) is 0.573, and the AVE is 0.758. Again, the correlation coefficient for transaction efficiency is 0.854, while the AVE is 0.877. Finally, the correlation coefficient for trust is 0.876, and the AVE is 0.876. This shows that the convergent validity for the constructs under study has been met.

Structural model evaluation

This section presents the results of the structural equation model used to test the hypotheses. R-squared (R^2) values for the model are also presented. The p-value at a 5% level of significance was used to accept or reject the hypotheses, as shown in Table II.

Table II: Structural model results

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Decision
IFT -> NATDEV	-0.010	0.029	0.344	**0.731**	**Not Supported**
STY -> NATDEV	0.136	0.041	3.303	**0.001**	**Supported**
TEF -> NATDEV	0.386	0.084	4.576	**0.000**	**Supported**
TRT -> NATDEV	0.406	0.076	5.314	**0.000**	**Supported**

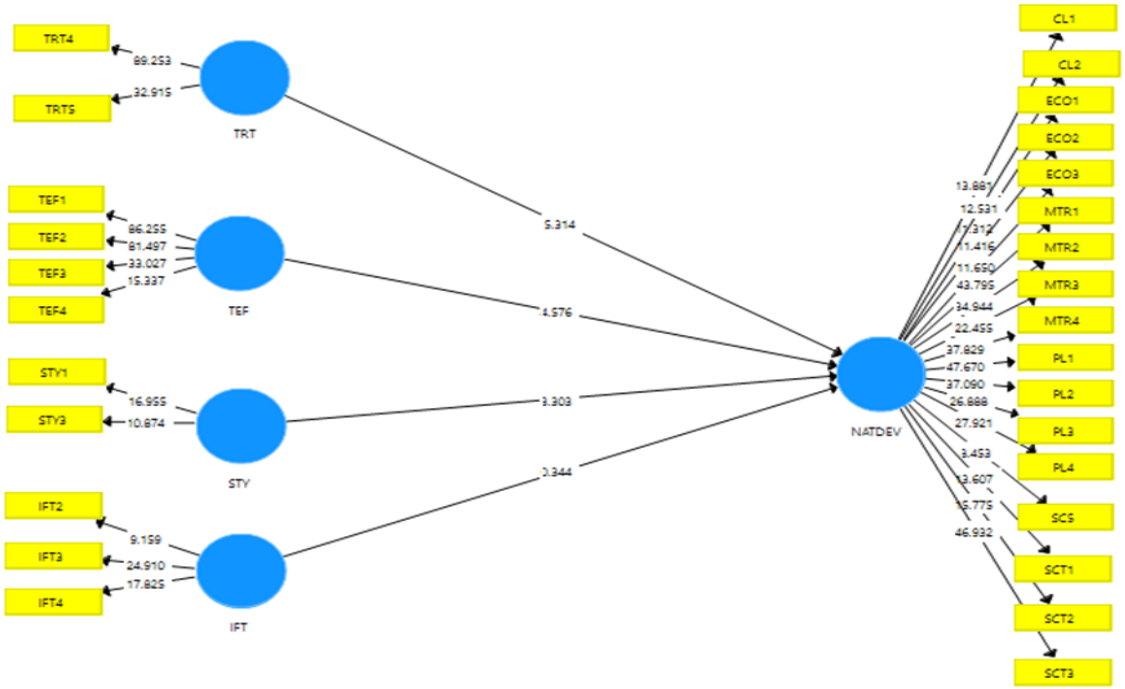

Figure 3. Structural model

As shown in both table II and figure 3, the relationship between the intention to use fintech and national development is negative and insignificant, with a p-value of 0.731 and a beta value of -0.010. Also, sustainability was found to have a positive and significant effect on national development, with a p-value of 0.001 and a beta value of 0.136. Similarly, the results show that

Article published on boldscholar.com. Verify this document by clicking here

transaction efficiency positively and significantly affects national development, with a beta value of 0.386 and a p-value of 0.000. Regarding trust and national development, the findings indicate a positive and significant relationship with a p-value of 0.04 and a beta value of 0.043. The findings are consistent with some previous studies (Deng et al., 2019; Popescu & Popescu, 2019) conducted in different geographical settings on the significant effect of fintech on social and economic development.

Coefficient of determination

Apart from the structural model, it is important also to assess the coefficient of determination. The R-square values of 0.25, 0.50 and 0.75 are considered small, medium and substantial, respectively (Hair et al., 2016; Chin, 1998). However, Falk & Miller (1992) suggest that 0.10 could be considered as the minimum acceptable level of R^2 value. Table III shows the R^2 value of this study.

Table III: Coefficient of determination

Construct	R-Squared
National Development	0.716

The R-square value of this study's model is 0.716, implying that financial technology has explained 71.6% of the variance in national development in Nigeria. This shows that trust, sustainability, transaction efficiency and intention to use fintech could jointly predict national development, while other factors not examined in this study explain the rest.

Discussion and implications

The results show a negative relationship between the intention to use fintech and national development. This suggests that the mere intention to use fintech did not contribute to national development. It shows that until fintech is utilized, national development cannot be achieved by mere intention. In addition, the study shows that sustainability contributes significantly to national development. This implies that sustainability in applying fintech services, especially due to COVID-19, could lead to the overall development of a nation's economic, social, political, cultural and scientific development. Sustainability in applying fintech during and after the COVID-19 pandemic has spurred mass literacy, urbanization, and socio-cultural transformation among citizens, which led to improved welfare. The devastating effects of COVID-19, which include a high death rate, poverty, a decline in food production, security, money supply, and reduced inflow of foreign exchange as a result of none exportation and importation of goods and services, have forced governments to fully embrace financial innovations to save their economies from total collapse.

Similarly, the study has found that transaction efficiency has a positive and significant effect on national development. The finding indicates that efficiency in transactions achieved through financial innovations speeds up the completion of transactions, enhances communications between parties to transactions, and lowers the time, effort, and cost associated with transactions, which translates to socio-economic development. Thus, it implies that policymakers should continue to provide a conducive environment that would promote innovations in financial technology, which leads to transaction efficiency.

Finally, the results of this study show a positive and significant relationship between trust in fintech and national development. This implies that mutual trust amongst all participants in digital finance is an important determinant of economic and social development. It shows that

Article published on boldscholar.com. Verify this document by clicking here

fintech companies must have faith in the ecosystem for national development to be achieved. Similarly, the financial sector must have confidence in the provider's technology to represent their brand properly, and users must have confidence in the platform before using these fintech services. When all these happen, it can lead to national development.

Conclusion

Based on the findings of this study, we conclude that fintech provides the enabling environment which spurs mass literacy, urbanization, and socio-cultural transformation among citizens, which leads to the improvement of their welfare. Fintech also provides financial channels that carry along every citizen and reduce poverty and income inequality, which all translate to national development. Therefore, innovation in financial technology drives a society's economic, social, environmental, cultural and political development. We conclude again that financial innovations speed up the completion of transactions, enhance communications between parties to transactions, and lower the time, effort, and cost associated with transactions which translate to socio-economic development, especially during and post-COVID-19 pandemic. Hence, the study has provided additional empirical evidence that fintech is an essential determinant of national development, and as such, policymakers should continue to provide the enabling environment, including policy and regulations, to enhance fintech development in the country.

Our research has some limitations, just like every other study. As indicated earlier, this study aims to show the effect of four dimensions of fintech on national development rather than exhaustively capturing all dimensions. As a result, future research can conduct similar tests and analyses on other fintech dimensions that are just as important as those examined in this study, such as crowdfunding and PSP loan. Additionally, our study examined the direct effect of fintech on national development. Future research might examine the interactions between fintech and another variable, such as regulation, to determine whether they work in concert or compete to predict national development.

References

Agbo, S. A. (2005). Myths and realities of higher education as a vehicle for nation building in developing countries: The culture of the university and the new African diaspora. In *Contemporary issues in education* (pp. 49–69). Brill.

Akhtaruzzaman, M., Boubaker, S., Chiah, M., & Zhong, A. (2021). COVID− 19 and oil price risk exposure. *Finance Research Letters*, *42*, 101882.

Akinola, O. (2021). Electronic banking business in Sub-Saharan Africa: Socio-economic impact and the activities of FinTech ecosystems. *International Journal of Management Research and Economics*, *1*(1), 27–33.

Ayriyan, S. (2021). *Fintech for Development: How Digital Financial Services Boost Economic Growth*. PaymentsJournal. https://www.paymentsjournal.com/fintech-for-development-how-digital-financial-services-boost-economic-growth/

Beck, T., Chen, T., Lin, C., & Song, F. M. (2016). Financial innovation: The bright and the dark sides. *Journal of Banking & Finance*, *72*, 28–51.

Boamah, E. F., Murshid, N. S., & Mozumder, M. G. N. (2021). A network understanding of FinTech (in) capabilities in the global South. *Applied Geography*, *135*, 102538.

Bodie, Z., & Merton, R. C. (1995). Financial Infrastructure and Public Policy: A Functional Perspective. *Available at SSRN 6639*.

Busari, I. A., & Jayeoba, A. O. (2021). *COVID-19 and Strategies for Business Survival in Nigeria: Empirical Analysis*.

Cavanna, H. (1992). *Financial innovation*. Routledge.

Deng, X., Huang, Z., & Cheng, X. (2019). FinTech and sustainable development: Evidence from China based on P2P data. *Sustainability*, *11*(22), 6434.

Article published on boldscholar.com. Verify this document by clicking here

Dorfleitner, G., Hornuf, L., Schmitt, M., & Weber, M. (2017). The fintech market in Germany. In *FinTech in Germany* (pp. 13–46). Springer.

Enesi, O. E., & Ibrahim, U. A. (2021). Effect of COVID-19 Pandemic on the performance of small and medium business enterprises in Abuja-FCT, Nigeria. *Open Journal of Business and Management*, *9*(5), 2261–2276.

Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, *5*(6), 149.

Fagerlind, I., & Saha, L. (1989). Education, political mobilization and development. *Education and National Development: A Comparative Perspective*, 123–142.

Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling.* University of Akron Press.

Flood, D., West, T., & Wheadon, D. (2013). Trends in mobile payments in developing and advanced economies. *RBA Bulletin*, *1*, 71–80.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50.

Frame, W. S., & White, L. J. (2014). *Technological change, financial innovation, and diffusion in banking*. Leonard N. Stern School of Business, Department of Economics Atlanta, GA, USA.

Freedman, R. S. (2006). *Introduction to financial technology*. Elsevier.

Frost, J. (2020). *The economic forces driving FinTech adoption across countries (BIS Working Paper No. 838)*.

Frost, J., Gambacorta, L., Huang, Y., Shin, H. S., & Zbinden, P. (2019). BigTech and the changing structure of financial intermediation. *Economic Policy*, *34*(100), 761–799.

Fuster, A., Plosser, M., Schnabl, P., & Vickery, J. (2019). The role of technology in mortgage lending. *The Review of Financial Studies*, *32*(5), 1854–1899.

Gboyega, A. (2003). Democracy and development: The imperative of local governance. *An Inaugural Lecture, University of Ibadan*, *67*.

Georgewill, B. (n.d.). *NATIONAL DEVELOPMENT AS A MULTIDIMENTIONAL PROCESS*.

Haddad, C., & Hornuf, L. (2019). The emergence of the global fintech market: Economic and technological determinants. *Small Business Economics*, *53*(1), 81–105.

Hair, J.F.Jr., Hult, G.T.M., Ringle, C., Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM).* Sage Publications.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, *45*(5), 616–632.

Herkenrath, Mark & Bornschier, Volker. (2015). Transnational corporations in world development: Still the same harmful effects in an increasingly globalized world economy?. *Journal of World-Systems Research.* 9. 10.5195/jwsr.2003.246.

Harrison, D. (1988). *Sociology of Development and Modernization*. Unwin Hyman, London.

Hasan, R., Ashfaq, M., & Shao, L. (2021). Evaluating Drivers of Fintech Adoption in the Netherlands. *Global Business Review*, 09721509211027402.

Hong, C. Y., Lu, X., & Pan, J. (2020). *Fintech adoption and household risk-taking*. National Bureau of Economic Research.

Israel, G. D. (1992). *Determining sample size*.

Kammoun, S., Loukil, S., & Loukil, Y. B. R. (2020). The Impact of FinTech on economic performance and financial stability in MENA zone. In *Impact of Financial Technology (FinTech) on Islamic Finance and Financial Stability* (pp. 253–277). IGI Global.

Khraisha, T., & Arthur, K. (2018). Can we have a general theory of financial innovation processes? A conceptual review. *Financial Innovation*, *4*(1), 1–27.

Knuth, S. (2018). "Breakthroughs" for a green economy? Financialization and clean energy transition. *Energy Research & Social Science*, *41*, 220–229.

Krejcie, R. V, & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607–610.

Malmendier, U. (2009). Law and Finance" at the Origin". *Journal of Economic Literature*, *47*(4), 1076–1108.

McClelland, D. C. (1961). *The achieving society: 210–215*. D. Van Nostrand Co., New York.

Article published on boldscholar.com. Verify this document by clicking here

Medlin, B. D. (2001). *The factors that may influence a faculty member's decision to adopt electronic technologies in instruction*. Virginia Polytechnic Institute and State University.

Meierrieks, D. (2014). Financial development and innovation: Is there evidence of a Schumpeterian finance-innovation nexus? *Annals of Economics & Finance*, *15*(2).

Parisot, A. H. (1995). *Technology and teaching: The adoption and diffusion of technological innovations by a community college faculty*. Montana State University-Bozeman, College of Education, Health & Human ….

Popescu, C. R. G., & Popescu, G. N. (2019). An exploratory study based on a questionnaire concerning green and sustainable finance, corporate social responsibility, and performance: Evidence from the Romanian business environment. *Journal of Risk and Financial Management*, *12*(4), 162.

Purnomo, H., & Khalda, S. (2019). Influence of Financial Technology on National Financial Institutions. *IOP Conference Series: Materials Science and Engineering*, *662*(2), 22037.

Putri Farhan Najwa, M. D. (2018). *Impact of Fintech on the economic growth: evidence from selected countries*. Universiti Utara Malaysia.

Quevedo, M. F. (2019). *An analysis on fintech apps for payments*.

Rogers, E. M. (2010). *Diffusion of innovations*. Simon and Schuster.

Rostow, W. W., & Rostow, W. W. (1990). *The stages of economic growth: A non-communist manifesto*. Cambridge university press.

Sachse, S., Alt, R., & Puschmann, T. (2012). *Towards customer-oriented electronic markets: A survey among digital natives in the financial industry*.

Sadigov, S., Vasilyeva, T., & Rubanov, P. (2020). Fintech in economic growth: Cross-country analysis. *Economic and Social Development: Book of Proceedings*, 729–739.

Salampasis, D., & Mention, A.-L. (2018). FinTech: Harnessing innovation for financial inclusion. In *Handbook of Blockchain, Digital Finance, and Inclusion, Volume 2* (pp. 451–461). Elsevier.

Sept, E., & since March, A. (2020). Covid-19: The global crisis—in data. *Financial Times*.

Tufano, P. (1989). Financial innovation and first-mover advantages. *Journal of Financial Economics*, *25*(2), 213–240.

Umuru, G. E. (2002). Re-Focusing Science Technology and Mathematics Education for Rapid National Development. *Refocusing Education in Nigeria*.

Webster, A. (1990). *Introduction to the Sociology of Development*. Macmillan International Higher Education.

Zavolokina, L., Dolata, M., & Schwabe, G. (2016). FinTech transformation: How IT-enabled innovations shape the financial sector. *FinanceCom 2016*, 75–88.

Article published on boldscholar.com. Verify this document by clicking here