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# EFFECT OF FINANCIAL TECHNOLOGY ON FIRMS' FINANCIAL SERVICE DELIVERY IN NIGERIA: A LITERATURE REVIEW

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## Abstract
To ascertain the impact of financial technology as a tool for enterprises' efficient financial service delivery in Nigeria, the research reviews the literature on the variables under consideration. The study is entirely exploratory and solely based on desk research. For this reason, the study evaluated several articles and produced meaningful findings. Most of the arguments favouring assessing the research variables were backed up by previous literature. According to the study's findings, financial technology (fintech) nowadays is the key factor defining competitive advantage in the financial services industry. New financial technologies are essential for businesses to learn and implement since they collectively help improve customer service. A significant problem affecting financial service delivery is ineffective regulation causes lawbreaking and fraud. According to the survey, Nigerian businesses should fully optimize and expand their digital FinTech operations to significantly outperform traditional companies and ensure the delivery of financial services and sector stability. The government should also implement measures that would support the financial technology sector even more and support entrepreneurs within Nigerian borders.
**Keywords:** Financial technology, financial service delivery, Performance, Small and Medium Enterprises.

## Introduction
Digitalization has recently had a significant consequence for the financial sector, as seen by the birth of "FinTech," which is an acronym for "finance" and "information technology." FinTech challenges established financial service providers while also opening doors for new services and business models. It has led to an open debate and discussion among industry executives, financiers, and academics (Zavolokina, Dolata, & Schwabe, 2016). FinTech is believed to make banking more accessible, economical and convenient (Firmansyah, Masri, Anshari, & Besar, 2023). The innovation could disrupt the conventional banking system, insurance agencies, and investment organizations. In addition to technological advancement, fintech's rapid growth can be attributed to its distinct regulatory force relative to traditional financial service providers, which gives fintech companies more freedom to experiment within a "regulatory sandbox" in order to develop innovative products and services (Buchak, Matvos, Piskorski, & Seru, 2018). There are numerous participants in the fintech ecosystem, each offering a distinct product or service (Baber 2019). The fintech ecosystem comprises traditional financial institutions as well

as startups, tech creators, regulators, investors, and consumers. Examples of fintech include business models in the areas of payments, wealth management, crowdfunding, P2P lending, the capital markets, and insurance (insurtech) (Lee & Shin, 2018).

Conventional banks, microfinance institutions (MFIs), small and medium-sized businesses (SMEs), and other organizations also employ fin-tech. The recent rapid expansion of fin-tech in Nigeria's financial system and SMEs has piqued the interest of stakeholders in figuring out how applicable the adopted technologies are. Due to the multiple benefits obtained, such as the comfort and speed of operational procedures in service delivery, some stakeholders are enthusiastic about the adoption. In contrast, others are worried about the related and predicted hazards. This risk results from these technologies' poor infrastructure and technological know-how (Ahmed-Ishmel, Onyeiwu, & Owopetu, 2018). In Nigeria, smaller firms might suffer inaccessibility to fintech equipment due to inadequate infrastructure, illiteracy, power outages, frequent bank network failures, knowledge asymmetry, high charges, data privacy breaches and poor mobile reception especially in rural areas (Ediagbonya & Tioluwani, 2023). In addition, financial education is lacking among Nigerians, which would have given users and customers the confidence to accept technologically new goods and services. By focusing on firm operations, the researchers are interested in learning how much of an impact Fin-tech has on businesses. Is it accurate to say that a small firm will suffer without FinTech equipment? In other words, how do company processes get im7pacted by the buzz surrounding FinTech devices? Small businesses in Nigeria embrace fin-tech more frequently than ever. Still, there is rising concern about the skill(s) required to handle it effectively to prevent data and resource loss (Ahmed-Ishmel et al., 2018).

According to Ozili (2021) due to lack of financial education initiatives, many individuals and families in Nigeria have struggle-d and are unable to take advantage of the plethora of new financial products and services available to them, preventing them from enhancing their financial well-being. Even when some type of financial education program is implemented in major urban areas, it frequently fails due to the fact that its high cost exceeds its potential advantages. Some research indicate that the cost of financial education may not justify the possible return on investment (Willis, 2008; Ozili 2018). Innovations in contemporary financial technology (fin-tech) contribute to society by fostering a greener environment. Fin-tech includes a wide range of operations that enable firms to digitise their current business model and launch new goods and services, from data security to financial service deliverables. As a result, there is a growing need for researchers and specialists to pinpoint the subject's new developments and directions (Nasir et al., 2021).

Therefore, providing financial services to everyone is increasingly causing worry among all policymakers due to the apparent social and economic repercussions. Financial services have become a clear and focused strategy for rapid economic development, which is now seen as essential to achieving inclusive growth in a nation. This realization has recently played a significant role in the approval of initiatives and regulations meant to increase access to international financial services to advance economic development on a global scale. Despite this international agreement, achieving universal financial inclusion has remained challenging, with up to 54% of individuals worldwide without access to banking facilities. The situation is worse in developing countries where financial exclusion rates can reach 70% (Nazrul Islam, Ysuuf, & Shuaibu 2022). Based on the issues above, the objective of this research attempts to review scholarly work on how financial technology serves as a tool for improving enterprises' efficient financial service delivery using a literature review technique.

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***Research Objectives***

The objective of this paper is to review the impact of fintech on financial service delivery in Nigeria.

## Literature Review

***Financial Technology (FinTech)***

Although the fin-tech sector is quickly growing, there are many meanings of the term in scholarly practice and business publications. Although stakeholders reflect on the term's essential components, its clear focus has not been identified. Opinions differ on whether "fin-tech" refers solely to freshly developing technology-based financial enterprises or whether incumbents can be labelled fin-tech if they design a technologically innovative service or product. It is also unclear whether a market capitalization barrier can be utilized to differentiate fin-tech from conventional financial intermediaries. Regardless of the distinctions, definitions agree that fin-tech refers to companies that develop financial services and products using advanced information technology (Varga, 2017). A business or banking organization dealing with financial technology is referred to as fin-tech. Financial services, such as electronic mobile banking, electronic transfers, loans, fundraising, investment management, and property management use this technology. The amount of money invested in fin-tech has increased dramatically recently. It is expected to do so in the future, provided that fin-tech is not only related to the financial services industry but also to all businesses that deal with the services sector and that fin-tech start-ups are typically intelligent and capable of causing issues. Organizations can have a significant impact on the ability of traditional finance firms to innovate quickly. (AlMomani & Alomari 2021).

According to Ahmed-Ishmel et al. (2018), Financial Technology (FinTech) is the technological delivery of novel financial services or products. Consumer expectations are evolving as technology (such as mobile and internet communications) develops and becomes more widely used. Many new and emerging businesses are working on fin-tech solutions that have the potential to uplift the current financial services industry. Fin-tech refers to goods and services that employ technology to improve the efficiency of traditional financial services. They are fast and easy. Most of these products and services are created by new companies who want to cooperate with or compete with existing financial service providers to enhance corporate and retail banking (AlMomani & Alomari, 2002). In other words, Leong and Sung (2018) define fin-tech as a topic that crosses the boundaries of finance, technology management, and innovation management.

The term "FinTech" has also come to refer to young, creative businesses that provide goods related to financial technology. This description is appropriate for capturing the dynamic environment of FinTech start-ups. It is simple to imagine a scenario where the start-up rather than the technology itself takes centre stage. (Ahmed-Ishmel et al. 2018). According to Mlanga (2019), the World FinTech report stated that High customer demand and rapid technological advancements necessitated a new approach to business, including its service delivery mechanism, in-house professionals (regulators, bankers, insurers), and, most importantly, its regulatory structure. The existence of FinTech systems has increased inclusion compared to the system's traditional approach while also introducing cost and information asymmetries.

***Benefits of Financial Technology (FinTech)***

FinTech has benefits and drawbacks, much like any other technology system globally. The critical use of fin-tech is changing customer expectations, behaviour, and preferences as they adopt new technologies to make it easier and more comfortable for them to interact with the financial system. Because of the demand for personalization, consistency, and speedy resolution to problems, fin-tech has increased financial inclusion around the globe because financial channels can now reach more people wherever they are rather than requiring them to enter the system. The FinTech system is also flexible and adaptive, enabling it to readily keep up with the rate of sophisticated technology in a constantly evolving world. (Mlanga, 2019).

***Challenges of Financial Technology (FinTech)***

The difficulties faced by FinTech include a lack of business models that have been created, a lack of compliance knowledge, and a lack of the domestic and international customer bases that their traditional competitors have accumulated through time. These clients are loyal to their institutions and are wary of adopting a "new trend" in the financial sector. Every innovation seems to be met with more suspicion than acceptance, leading people to prefer the status quo. Many companies fail to adopt FinTech due to the fear of losing all of the money they invested in the company. This is because many models, modalities, plans, modes of operation, assets, and liabilities will be changed or altered. This disruptive change may cause the loss of some precious customers accustomed to the old system, the firing of some devoted but antiquated employees, and the failure of several investments (Mlanga, 2019). Despite these obstacles, Ojo and Nwaokike (2018) present specific recommendations for how the government should support the fintech industry. Among these is the requirement that the state establish a regulatory and oversight agency to ensure the proper operation of the Fintech Market. The country's highest regulatory institution, the Central Bank of Nigeria (CBN), has exerted significant effort to develop a stable regulatory environment for the mobile money industry. Launching the important pathway and issuing supportive guidelines and regulations are two methods for promoting the expansion of this sector. Moreover, the CBN should encourage an environment in which traditional banks and Fintech groups/startups actively engage and synergize to advance financial inclusion, establish financial stability, and provide client-centric services to the public. Since peer-to-peer lending and crowdfunding appear to be particularly vulnerable areas of Fintech, the research recommends that these sectors provide enough protection against possible exploitation and deprivation for all consumers of Financial services.

Despite these challenges, Ojo and Nwaokike (2018) and another by Ogunode and Akintoye (2023), argue that the government should create an entity to oversee and regulate the Fintech Market. Launching the major avenue and issuing essential rules and regulations to encourage the expansion of this industry should also come from the Central Bank of Nigeria (CBN). It is also important for regulatory agencies to offer clear policy frameworks to handle data privacy breaches and to support a shift in fintech activity toward underserved rural areas. Finally, to lessen the effects of downtimes and service hiccups, efforts should be made to enhance system interoperability and linkages between traditional banks and fintech businesses. Similarly, Ogunode and Akintoye (2023) in their study financial technologies and financial inclusion in emerging economies: a Nigerian perspective suggests that regulators should offer clear policy frameworks that address issues of data privacy violation and support a refocusing of fintech

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activity on priority rural areas. By strengthening system interoperability and links between traditional banks and fintech companies, it is possible to mitigate the difficulties of frequent outages and service issues, which exacerbate trust deficits.

***Financial Services***

Financial services generally refer to informal financial services, it also denotes formal financial services. Financial services in general, such as savings, credit, payments, investments, insurance, and pensions, are included in the services covered. As a result, financial services are conceptualized in two ways in the development finance literature. When defining financial services, it is possible to exclude financial activities carried out by the informal subsector and limit the definition to items provided by official financial institutions. This includes goods that let consumers make deposits, save money, make withdrawals, obtain credit, use insurance, and send money (Allen, Demirgüç-Kunt, Klapper, & Pera 2016). Any official or informal action enabling consumers to save, borrow, purchase insurance, or move money is a financial service. (Armendàriz & Morduch, 2010; Akpandjar, Quartey & Abor, 2013; Shem, Misati & Njoroge, 2012). Financial services are, therefore, related to official financial services; otherwise, informal financial services are utilized. Financial services in general, such as savings, credit, payments, investments, insurance, and pensions, are included in the services covered. When conceptualizing financial services, it is possible to ignore the financial transactions carried out by the informal subsector and focus only on the products provided by official financial institutions. This includes goods that enable customers to make deposits, withdraw funds, obtain credit, purchase insurance, and use money transfer services (Allen et al., 2016). Any official or informal action enabling consumers to save, borrow, buy insurance, or move money is a financial service. (Armendàriz & Morduch, 2010; Shem et al., 2012; Akpandjar et al., 2013).

The empirical studies conducted in relation to financial services include that of Joachim (2017) who investigated the determinants of financial service use in Tanzania, particularly the role of household behavioural factors. According to the empirical findings, behavioural factors influence the use of financial services. To begin, an examination of household financial experiences on a sample of 30 households using financial diary methodology revealed a wide range of household financial experiences that highlight the importance of financial services to households. Second, even with the fact that the majority of households do not use financial services, it has been discovered that households have positive views about financial services for saving, security, finance, money management, and improving economic well-being. Third, structural equation models revealed that perceptions towards financial services, perceived behavioural control, and subjective norms all have a significant impact on financial service intention. Ouma, Odongo and Were (2017) evaluated whether the widespread use of mobile telephony to provide financial services is a boon for savings mobilisation in selected Sub-Saharan African countries. The findings revealed that the availability and use of mobile phones to provide financial services increases the likelihood of household savings. Access to mobile financial services not only increases the likelihood of saving but also has a significant impact on the amount saved, possibly due to the frequency and convenience with which such transactions can be completed using a mobile phone. The use of mobile phones is likely to promote both types of savings, namely basic mobile phone savings stored in the phone and bank-integrated mobile savings.

Theodora (2017) examined the trends and determinants of household use of financial services

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1 (3)
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in Ghana. The study examined the trends in saving and borrowing by individuals from 1991 to 2014 using data from the Ghana Living Standards Survey (GLSS) and the Global Findex. Moreover, the study used Multinomial Logit regression to examine the factors that influence individuals' decisions to save, borrow, and insure using formal versus informal institutions using Finscope Ghana 2010 data. From 1991 to 2006, the proportion of people who saved showed a relatively stable trend. Over time, the proportion of people borrowing from informal institutions has decreased while the proportion borrowing from formal institutions has increased. Simon, Michael and Thomas (2019) utilised interpretive in-depth case study studies to examine how a European financial services provider developed and implemented a DTS. The study revealed a new extreme of emergent strategy-making by focusing on the underlying processes and strategizing activities. Digital strategy making not only represents a break with the conventions of upfront strategic information systems (IS) planning. The study concluded that a DTS is constantly being developed, with no end in sight. According to the study model, creating a DTS is a highly dynamic process that involves iterating between learning and doing.

***Empirical Review***

Fin-tech and financial service delivery have been conceptually and empirically studied by scholars for decades, with various findings and submissions. The subsequent review is arranged in reverse chronological order to illustrate the evolution of the study process as perceived by industry professionals. For instance, Nazrul Islam, Ysuuf, and Shuaibu (2022) explore the impact of financial technology (Fin-Tech) on deposit money banks' service to provide financial services in Nigeria. Ex-post facto research methods were used in the study, and secondary data from the bank's financial reports from 2012 to 2021—found in the bank's accounts and annual reports—was used. The 16 deposit money banks listed on the NSE as of December 20, 2021, make up the working population of the research (before the actual adjustment to listed banks in 2021). The data are analyzed using descriptive statistics, correlation, and regression analysis using the statistical program SPSS 22. The research revealed that the rise of mobile banking, online banking, and point-of-sale banking significantly impacted the financial services offered by Nigeria's listed deposit money banks.

In a sample of banks in Kwara State, Nigeria, Oyetoyan and Ajiboye (2021) investigate the impact of FinTech regulation on the performance of Deposit Money Banks (DMB). The study was conducted using a survey of five DMBs in the state. The collection and analysis of data used quantitative techniques. Five DMBs were used to choose the 220 staff for Ilorin Metropolis. Data on accounts of ethical practice in the regulatory framework of bank-provided FinTech services were gathered using a well-structured questionnaire. The study's hypotheses were tested using Pearson Moment Correlation, ANOVA, and Multiple Regression statistical methods. According to the research, PayStack directly improves DMBs' performance by 5%. Furthermore, there is a substantial correlation between Nigerian bank performance and regulation of digital innovation in the banking sector at a level of 5%. It is stated that using FinTech services improves bank performance through a cost-benefit analysis that increases the social structure and effectiveness of Fintechs in a more secure network.

Similarly, Ogbuji, Ologundudu, and Oluyomi (2020) used ALAT by Wema Bank Plc as a case study to examine the performance of traditional banks and financial technology (FinTech) in Nigeria. For secondary data, annual reports from the WEMA bank from 2012 to 2018 were used. The performance of WEMA banks in the study's digital FinTech and payment FinTech operations periods were evaluated in detail using the CAMELS descriptive and composite CAMELS ranking methodology. The results showed that between 2017 and 2018, digital FinTech operations, also known as ALAT in WEMA banks, had a more consistent positive impact on WEMA bank performance than payment FinTech operations did between 2012 and 2016.

To compare the variations in banking profitability between banks listed on the Indonesia Stock Exchange before and after collaborating with fin-tech start-ups, Marlina (2020) used a descriptive technique using nine banks as a sample size on the Indonesia Stock Exchange (IDX). The results showed no difference in bank profitability between working with fin-tech firms before and after. El Gohary (2019) similarly tries to determine the influence of fin-tech on supporting e-government services in terms of availability, accessibility, efficiency, and responsiveness, including service e-payment, bill e-payment, payment methods, and bank accounts with e-government. The study employed a survey method on 400 Egyptian respondents to investigate the impact of fin-tech on enabling e-government services to determine which fin-tech item can affect any aspects of facilitating services. The data found that bank accounts with e-government did not involve any dimension of enabling services. However, each of the remaining components affects some but not all aspects.

Kemboi (2018) looked into how fin-tech affected Kenyan commercial banks' financial health. The study's independent variables were mobile banking, online banking, and agency banking. 43 banks were included as a sample in the study. When financial technology adoption among banks was high between 2013 and 2016, it examined secondary data from annual reports. Additionally, multiple regressions were used to explore the connection between fin-tech and financial performance. It made use of SPSS-analyzed descriptive statistics. The study found that using agency banking, online/internet banking, and mobile banking improved bank financial performance. Additionally, Ahmed-Ishmel et al. (2018) investigate how fin-tech affects Nigerian SMEs' business operations (payments/collection). In the four (4) chosen geopolitical zones of Lagos State, 120 SMEs were surveyed for the study. The educational, online merchants, fashion, pharmaceutical, automotive, agro-allied, cosmetics, printing, I.T. enterprises, restaurant, bakery, and retail industries all employ 2 to 10 people through these SMEs. This was done so that each of the four axes was represented by thirty (30) SMEs. For the study's objectives, 100 questionnaires—or 83%—of the total distributed—were assessed as applicable. Data analysis was done using inferential statistics. The study found that Financial Technology (FinTech) has a sizeable economic influence and hence favourably affects national development. Wolbers (2017) evaluates the climate for FinTech in developing nations using many factors. A cross-country regression study was done to determine if measures of a country's fin-tech climate have a favourable effect on fin-tech adoption. As a result, it has been determined that the adoption of FinTech affects the degree of financial inclusion, which is anticipated to positively influence a nation's long-term economic development. The 3SLS regression results show that the quality of infrastructure and the business ecosystem has a favourable impact on the use of FinTech, based on a representative sample of 62 developing economies.

**Research Method**

This study is exploratory. It is based on a desktop evaluation of prior research from books, journals, newspapers, magazines, and websites. Most arguments to evaluate the variables in question were built on the existing research. The researchers are able to investigate the impact of financial technology as a tool in enhancing the successful financial service delivery of firms due to the synthetic data obtained from institutional websites and published articles.

**Conclusion**

The aim of this study is to review how financial technology affects businesses' ability to deliver financial services effectively in Nigeria. The study findings show that fintech has a significant impact on financial service delivery in Nigeria. Nazrul Islam, Ysuuf, and Shuaibu (2022) discovered that Internet banking, point-of-sale (POS), and mobile banking had a substantial impact on the financial service provided by listed deposit money banks in Nigeria. Similarly, Ahmed-Ishmel, Onyeiwu, and Owopetu (2018) found that FinTech has a significant economic impact and helps to advance the country. As a result, fin-tech is the determining factor of competitive advantage in financial services today and any entity or professional within the financial milieu that fails to align with the constantly evolving technology incorporated into the financial system will fall behind. In contrast, the approach taken by fin-tech is, to begin with a consumer problem, find digital technologies that may be used to solve it, and then create new business models. Businesses reevaluate conventional business models as they investigate ways to give solutions where and when customers need them. Businesses must alter their business strategies in the face of escalating financial project rivalry, which gets more challenging and complex with time. The fact that the procedures for regulating the fin-tech are evolving more slowly than the fin-tech itself also entails some hazards. On the one hand, this is advantageous because the regulator does not obstruct the advancement of innovations. Still, on the other hand, the absence of a suitable regulator results in a lack of adherence to the law and the emergence of fraudulent schemes. Businesses must learn and exploit new financial technology to maintain their market share since they can improve customer service when combined.

**Recommendations**

Considering the initial findings, the study recommends the following:

1. FinTech professionals must make conscious efforts to reach out to technologically savvy people.

2. Businesses must invest in continual employee training and the deliberate creation of dynamic capabilities to ensure their ability to adapt to the ever-changing nature of FinTech in the financial system. For regulators to effectively limit problems such as noncompliance with client data protection that could arise with the rise of FinTech, they, too, must have a comprehensive understanding of the most recent technological advancements.

3. Like those of other developed nations, the government should put into place laws that will enhance the fin-tech industry and support entrepreneurs within Nigeria's borders.

## Reference

Ahmed-Ishmel, G. D., Onyeiwu, C., & Owopetu, O. A. (2018). The Impact of financial technology in the operations (payments/collections) of SMEs in Nigeria. *International Journal Of Innovative Research & Development, 7*(2). doi:10.24940/ijird/2018/v7/i2/FEB18022

Akpandjar, G. M., Quartey, P., & Abor, J. (2013). Demand for financial services by households in Ghana. International Journal of Social Economics, 40(5), 439-457.

Allen, F., Demirgüç-Kunt, A., Klapper, L. & Pería, M. S. M. (2016). The Foundations of financial inclusion: Understanding ownership and use of formal accounts. Journal of Financial Intermediation.

AlMomani, A. A., & Alomari, K. F. (2021). Financial technology (fin-tech) and its role in supporting the financial and banking services sector. *International Journal of Academic Research in Business and Social Sciences, 11*(8). doi:10.6007/IJARBSS/v11-i8/10625

Armendàriz, B., & Morduch, J. (2010). The Economics of Microfinance. Massachusetts: The MIT Press.

Baber, H. (2019). Relevance of e-SERVQUAL for determining the quality of FinTech services. *Int. J. Electron. Finance*. 9, 257–267.

Buchak, G., Matvos, G., Piskorski, T., & Seru, A. (2018). Fintech, regulatory arbitrage, and the rise of shadow banks. *J. Financ. Econ*. 130, 453–483.

Clayton, M. C. (1997). The Innovation dilemma: When new technologies cause great firms to fail. Harvard Business School Press.

El Gohary, E. (2019). The Impact of financial technology on facilitating e-government services in Egypt. *Journal of Distribution Science, 17*(5), 51-59. doi:10.15722/jds.17.05.201905.51

Ediagbonya, V. and Tioluwani, C. (2023), "The Role of fintech in driving financial inclusion in developing and emerging markets: issues, challenges and prospects", *Technological Sustainability*, 2(1):100-119. https://doi.org/10.1108/TECHS-10-2021-0017

Firmansyah, E.A., Masri, M., Anshari, M., & Besar, M.H.A. (2023). Factors affecting fintech adoption: A Systematic literature review. *FinTech*. 2, 21–33. https://doi.org/10.3390/fintech201000

Joachim, B. M. (2017). Determinants for the use of financial services in Tanzania: A Study of Behavioural Factors. A thesis submitted in partial fulfilment for the requirements for the degree of Doctor of Philosophy at the University of Central Lancashire.

Kemboi, B. J. (2018). *Effect of financial technology on the financial performance of commercial banks in Kenya.* (Master of Business Administration), University of Nairobi,

Lee, I. & Shin, Y.J. (2018) Fintech: Ecosystem, business models, investment decisions, and challenges. *Bus. Horiz*. 61, 35–46.

Leong, K., & Sung, A. (2018). Fin-tech (financial technology): What is it and how to use technologies to create business value in fin-tech way? *International Journal of Innovation, Management and Technology, 9*(2). doi:10.18178/ijimt.2018.9.2.791

Marlina, R. (2020). Analysis of the effect of financial technology on banking profitability which is listed on the Indonesia stock exchange. *International Journal of Business, Economics and Law, 21*(1).

Mlanga, S. (2019). Implications of financial technology for professionals in financial services in Nigeria. *International Research Journal of Finance and Economics*(172).

Nasir, A., Shaukat, K., Iqbal Khan, K., Hameed, I. A., Alam, T. M., & Luo, S. (2021). Trends and directions of financial technology (fin-tech) in society and environment: A Bibliometric study. *Applied Sciences MDPI, 11*. doi:10.3390/app112110353

Nazrul Islam, M. S., Ysuuf, A. A., & Shuaibu, H. (2022). The Impact of financial technology (fin-tech) on financial service delivery of deposit money banks in Nigeria. *Sapientia Foundation Journal of Education, Sciences and Gender Studies (SFJESGS), 4*(2), 83 – 93.

Ogbuji, I. A., Ologundudu, M. M., & Oluyomi, O. O. (2020). Comparative analysis of financial technology and traditional bank performance in Nigeria: The Camels approach. *Unilag Journal of Business, 6*(1).

Ouma, S. A., Odongo, T. M., & Were, M. (2017). Mobile financial services and financial inclusion: Is it a boon for savings mobilization? Review of Development Finance, 7 (2017) 29–35.

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. Borsa Istanbul Review, 18(4), 329-340.

Ozili, P. K. (2021). Financial inclusion in Nigeria: Determinants, challenges, and Achievements.*New challenges for future Sustainability and Wellbeing.* 377-395.

Oyetoyan, S. A., & Ajiboye, W. T. (2021). Impact of regulation of financial technology (fin-tech) services on the performance of deposit money banks in Nigeria. *Al-Hikmah International Journal of Finance (AHIJoF), 1*(1).

Rogers, E.M. (1995). Diffusion of innovations (4 ed.). New York: The Free Press.

Scott, W. R. (2004). "Institutional theory."Encyclopaedia of social theory, George Ritzer, ed. Thousand Oaks, CA: Sage. pp. 408-414.

Shem, A. O., Misati, R., & Njoroge, L. (2012). Factors driving usage of financial services from different financial access strands in Kenya. Savings and Development, 1(36), 71-89.

Simon, C., Michael, D. M., & Thomas, H. (2019). Digital transformation strategy making in pre-digital organizations: The case of a financial services provider. Journal of Strategic Information Systems 28 (2019) 17–33.

Theodora, A. A. (2017). Trends and determinants of household use of financial services in Ghana. The Thesis is submitted to the University of Ghana, Legon In Partial Fulfilment of the Requirement for the Award of a Ph.D. Development Studies Degree.

Varga, D. (2017). Fin-tech, the new era of financial services. *Vezetéstudomány / Budapest Management Review, 11*(03). doi:10.14267/

Willis, L. E. (2008). Against financial-literacy education. Iowa L. Rev., 94, 197.

Wolbers, J. J. A. (2017). *Financial technologies paving a bright new path for the world's unbanked population.* (MSc International Financial Management), University of Groningen,

Zavolokina, L., Dolata, M., & Schwabe, G. (2016). The FinTech phenomenon: antecedents of financial innovation perceived by the popular press. *Financial Innovation, 2*(16). doi:10.1186/s40854-016-0036-7