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Uwah, Uwem E.; Udoayang, Joseph O.; Uklala, Peter A.

## Article

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## Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics  
Düsternbrooker Weg 120  
24105 Kiel (Germany)  
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)  
<https://www.zbw.eu/econis-archiv/>

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## Post COVID-19 and the Acceptance of Financial Inclusion as a New Normal in Financial Transactions: Implications for Nigerian Accountants and Other Financial Service Providers

By Uwem E. Uwah<sup>\*</sup>, Joseph O. Udoayang<sup>+</sup> & Peter A. Uklala<sup>±</sup>

*This study examined the preparedness of financial service providers to launch into the post COVID-19 era, using financial inclusion as a new normal in their clients' financial needs. The study adopted the survey research design, using a judgmental sampling technique. The questionnaire was used as the method of collecting data from 102 respondents, drawn from accounting firms, insurance companies, financial houses and pension fund administrators in Nigeria. With the aid of descriptive and inferential statistics, the hypotheses were tested at 5% level of significance. The findings revealed that there is a significant relationship between the socio-economic development structure in Nigeria and the acceptance of financial inclusion as a new normal in financial transactions. It was recommended that the public and private financial institutions be ready to provide the enabling environment for financial technology to thrive as a driver for financial inclusion in the Nigerian developing economy.*

**Keywords:** COVID-19 pandemic, financial technology, financial inclusion, new normal, financial service providers

### Introduction

Prior to the advent of COVID-19, many countries in the world had gone far in adopting strategies to promote and sustain financial inclusion. This is to emphasize that financial inclusion, as a subject matter is not new in finance and accounting. However, with the challenges posed by the pandemic, avenues must be sought to strengthen economic growth through the adoption of financial inclusion, embracing its numerous advantages, though its demerits must also be recognized and watched.

According to Sahay et al. (2020), during the COVID-19 pandemic, financial technology was intensified and this brought new opportunities for the use of digital financial services that accelerated and enhanced financial inclusion globally.

Nigeria as a developing economy did not lag behind in this re-invigorated trend in financial technology. Looking at the journey so far, since the adoption of the National Financial Inclusion Strategy by the Central Bank of Nigeria (CBN) in

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<sup>\*</sup>Lecturer, Department of Accounting, Faculty of Management Sciences, Akwa Ibom State University, Nigeria.

<sup>+</sup>Professor, Department of Accounting, Faculty of Management Sciences, University of Calabar, Nigeria.

<sup>±</sup>Research Assistant, Department of Accounting, Faculty of Management Sciences, University of Calabar, Nigeria.

2012, the pandemic period brought about heightened embrace of financial inclusion (CBN 2020). The CBN noted that the key performance indicators such as access to and usage of diverse, convenient and affordable financial services were in display and accepted by clients of the financial service providers in the country.

As a developing economy, access to and usage of financial services have a major impact on economic growth. This is what Fintech is known for, as it provides the enabling environment for financial inclusion that entails the delivery of financial services at affordable costs for the financially underserved population, especially the rural dwellers (Nwanne 2015).

Adeyinka and Olugbamila (2015) take a position that financial inclusion, as a concept, came into limelight in the early 2000s, principally as a result of research findings which stressed that poverty and low economic growth in developing nations was as a result of financial exclusion. Similarly, Fung et al. (2014) assert that financial exclusion is the bane of economic under-development in developing nations. The motivation for financial inclusion was therefore rekindled in making entrepreneurs to have access to extensive financial products that are tailored to their needs and at reasonable costs during the period of the COVID-19 pandemic.

It is worthy to mention that policy makers and scholars did not have any idea of an impending pandemic, but with the emergence of COVID-19 pandemic, there is much need to increase the advocacy for adopting financial inclusion by developing nations, entrenching in their policies, beyond access and usage of financial services, to have the need for affordability, appropriateness and protection of financial service consumers. Therefore, as opined by De et al. (2016), access to financial services for the rural dwellers in every country in the world would catalyze development, reduce poverty and empower economic activities.

Constantinescu and Schiff (2014) assert that looking at the past two decades, the banking sector had predominantly been plagued by the traditional financial services where large pool of customers was excluded financially. In an earlier quest for a variant to the traditional banking system, Irechukwu (2000) opined that the Fintech sector has a tendency to grow and bring innovation through new methods of digital financial solutions that could be implemented to fill the gaps in response of the traditional banking sector that could not make financial services accessible to crisis-affected populations essentially.

The novel COVID-19 came up with its notoriety in pummeling economic blow to every country, Nigeria inclusive. The aim of this study therefore was to research on how financial inclusion as a tool for economic empowerment can be utilized by developing countries, for economic development and sustainability in the post COVID-19 era. The focus of the research was on the use of Fintech, as described by Sahay et al. (2020) as the technology-enabled innovation in financial services that could result in new business models, applications, processes or products with the attendant effect on the provision of financial services.

There have been various researches on Fintech and financial inclusion prior to the COVID-19 pandemic. Studies similar to this study were conducted on the determinants of financial inclusion in Africa by Evans and Adeboye (2016) and also Migap et al. (2015) on "Financial inclusion for inclusive growth: The Nigerian

Perspective.” The model similar to what was used in this study was used, but gaps were created because those studies lacked the extraneous variables which affected business decisions as witnessed during the COVID-19 pandemic.

The gaps to be filled in this study therefore is based on the fact that COVID-19 incidentally brought a new normal, a concept which means accepting the reality of changes in the norms and values that were in operation before a new era, which cannot be reversed. This is the reality of what COVID-19 pandemic has brought to the entire world, and Nigeria as a country, in particular. The review and acceptance of the new normal, with regards to financial inclusion in Nigeria would re-position a vast number of people, small enterprises and potential entrepreneur who were, and still are excluded from financial services (Mohan 2006).

## Literature Review

For development to be sustainable in a country, there are various resources that are required to be utilized so that the economic, social and environmental needs of the populace can be met. In the first instance, there must be improvement on the quality of life from the earlier generation to the future.

Oluba (2008) opine that most adult Nigerians in rural areas do not have any transactions with financial institutions. This assertion implies that private and public financial service providers are not mostly available in the rural areas. More so, with the estimated population of over 200 million Nigerians, where a greater part of this number are rural dwellers, financial services are deficient. The stringent safeguard measures maintained during the pandemic gave a serious blow to economic development of this great West African country. Policies on financial inclusion should be re-designed and enforced as a new normal in the post COVID-19 era.

According to Beck et al. (2007) financial inclusion is a key dimension of, and a strategic means towards financial development of any country. This assertion is affirmed as it is more or less a means by which firms and households meet their financial needs at costs that are reasonable and affordable, as they participate in the formal financial system.

Adeyinka and Olugbamila (2015) suggest that economic development of a nation depends on how every sector of the economy functions and it was recommended that the formulation of clear policies among other things should be made by the government of the nation. This review is necessary as it is in line with our thought that things would never remain the same after the COVID-19 pandemic. In the pandemic era, physical access to domains and structures are done with utmost care, observing social distancing and avoiding contacts with persons to avoid contracting the virus. Financial services were disrupted negatively as noted by Sahay et al. (2020).

Uwah and Akininnyi (2020) opine that individuals are assumed to make choice according to the rank ordering of expected values. Therefore, from the theory of information economics/statistical decision, during the pandemic, financial service providers were affected in their financial returns. So were their

clients. The need therefore arises that the formal method of providing financial services must be positively disrupted through digital access to and usage of such services. This could be through mobile phones and computers to access the internet, and financial service providers have to wake up to the challenge so as to abate an economic slide (Islam et al. 2017).

In this wise, financial inclusion could be seen as a means of formally getting financial transactions carried out, providing opportunities for payments and transfers of funds, savings, insurance services and a whole of other functions which economic agents can offer. Nwanne (2015) noted that financial inclusion supports financial development, and failure to define its operations and concept could mean that the real effect expected of an inclusive financial system is underestimated or exaggerated. The concept of financial inclusion came up when it was realized that a section of the society made up of individual and businesses could not access the appropriate financial services from the main financial service providers (Nwanne 2015).

According to Leyshon and Thrift (1995) if one is not financially inclusive, then the other side of the coin, financial exclusion becomes imperative. For financial service providers in Nigeria to gear up towards financial inclusion as the new normal in the post COVID-19 era, it implies that their clients must not be financially excluded. Leyshon and Thrift (1995) maintained that the idea of financial exclusion first came up officially in 1993 when a group of geographers in a survey research discovered how limited the access to physical banking services had been, owing to massive closures of banks' branches.

Uwah and Udoayang (2020) posit that this situation escalated in recent times when banks had to close shops owing to the pandemic, and financial inclusion as a concept got a boost from financial service providers in order to balance the economic equilibrium. However, the authors were concerned about reporting issues, as earnings management may raise its ugly side if the new normal is not captured in financial reporting. As various scholars and academics have expressed their thoughts on the aftermath of COVID-19 in recent times, Singhraul and Batwe (2020) maintain that the outbreak of COVID-19 has affected human lives and services the world over. Situations in the post COVID-19 era, according to Singhraul and Batwe (2020) will either, give new boost, or depression to the world economy. The Gross Domestic Product (GDP) of a country might rise or fall, depending on how provision of goods and service are carried out, to stifle or stimulate the economy.

Financial inclusion, according to Hannig and Jansen (2010) could be that catalyst which would guarantee every economic agent, the accessibility to the use of basic financial services that would help in the growth of the economy.

Effiong et al. (2020) believe that it is the desire of every business to operate beyond the near future and maximize contributions and shareholders' wealth. It is also a new normal that COVID-19 pandemic has brought financial crisis to every country of the world, and for a country to sustain and grow its economy, there must be engagement in financial innovation so as to avert devastating systematic impacts. It is expected that international financial standard setters as well as

financial regulators would make effort in streamlining financial standards to accommodate financial inclusion (Hannig and Jansen 2010).

Soludo (2008) puts it that for financial inclusion to present opportunities for enhancing financial stability in a destabilized financial setting, its acceptance would ensure that individuals and firms could access and use formal financial services in their transactions. There would be availability as well as accessibility of credit at costs favourable to the poor and the marginalized in the society (Onaolapo 2015). As witnessed during the COVID-19 pandemic, International Monetary Fund (2020) observes that digital payment which includes payments using mobile phones or operated online were greatly used by clients of financial service providers during the pandemic. Other services carried out during the pandemic in increased dimension were digital lending and credit. Credit activity involves the extension of funds through digital means, while digital lending was carried out through market place lending, e-commerce lending, online lending by banks, mobile lending and peer-to-peer lending (IMF 2020). Sahay et al. (2020) had buttressed that market place lending, which has to do with lending through digital platforms connecting lenders and borrowers was very paramount during the pandemic. The use of mobile money, the financial service offered to its clients by mobile network operators and their allies were also heightened.

In any event, Sarma and Pais (2011) assert that a financial system is said to be inclusive when it serves the needs of a wider spectrum of society in an affordable and efficient manner. They maintain that the socio-economic status of the client would not be considered as important if financial inclusion is to meet its objectives in the provision of the services by the financial service providers. Therefore, Cohen et al. (2006) maintain that when customers are satisfied, there is a tendency for the financial service provider to retain them. More so, there would be a promotion of efficient allocation of financial resources that is expected to increase economic growth and development in any given environment.

#### *Financial Inclusion and the Financial Service Providers*

Financial service providers cannot be successful in the implementation of financial inclusion, if financial technology is not embraced. This is the main reason financial service operators must be involved in digital economy, E-commerce and M-commerce. Anyalenkeya (2020) opine that digital economy is an economy that is based on digital transactions and people cannot be financially included if they are not involved in digital financial transactions. Anyalenkeya (2020) further outlined the five pillars of digital economy as digital infrastructure, digital platforms, digital financial services, digital entrepreneurship and digital skills.

Adeyinka and Olugbamila (2015) maintain that the digital economy uses the internet, and it is not limited by space or distance. The public sector as well as the private sector in Nigeria have to look inwards and collaborate to make this happen, otherwise the template for financial inclusion is nil. According to them, e-commerce is an emerging business driver that uses technology to fulfill commerce

and/or deliver financial services and products to consumers. It thrives on online sales, insurance and digital payments.

Schmitz and Grayston (2020) assert that m-commerce involves the use of mobile technology. It entails buying and selling through mobile phones, mobile apps and other mobile compatible payment platforms. It stands out to be true that financial service providers who use financial technology platforms have easy operation of financial inclusion as they offer cheaper deals to customers and may not need to invest money in physical infrastructure. Therefore, in the context of post COVID-19, financial inclusion driven by financial technology as evidenced in e-commerce and m-commerce give consumers the benefit of having greater choice of products and services they could buy them remotely, regardless of location. It is also opined by scholars (Soludo 2008, Swamy 2011, Sarma and Pais 2011) that financial inclusion in these dimensions allows financial service providers the opportunity to store more information on customers so as to offer them more personalized products or services.

It is evidenced that digital commerce is made possible through internet, cloud, mobile and social media. Therefore, accountants and other financial service providers must seek to be relevant in the post COVID-19 era by getting these infrastructures as assets in the new normal disposition.

#### *The Concept of Intermediation and Financial Inclusion*

Asuquo et al. (2020c) assert that financial intermediation as carried out by financial service providers will take a new turn, as a matter of fact in the post COVID-19 era. According to them, the national government should be ready to use micro-economic variables to control the economy owing to many modifications that are inherent in the new normal. The concept, modified operationally, has the capacity to bring financial providers together online, in a group, even though they are physically apart. In the same vein, target customers are brought online, to meet with them. The acceptance of this new concept of financial intermediation improves financial transactions through financial inclusion. Therefore, government must ensure price stability, redistribution of income from the high to low income earners and among many others, ensure the provision of social infrastructures within the economy to assist other responsibilities which could be done by the citizens and other private organizations. Accounting Standard setters should be ready to make adjustments and regulate financial accounting Standards to meet this new reality (Asuquo 2013). As opined by Mohan (2006) this new concept of financial intermediation has the benefit of eliminating wastages, because the financial service providers and their clients share resources, and pay lower than they would ordinarily have paid if they were taking it alone. The positive effect here is that the financial service providers would have more customers than they would have had.

Ojedokun (2020) maintains that the key digital trends that would shape the world economically and socially in the post COVID-19 era include big data, Blockchain, Artificial Intelligence (AI), machine learning, and quantum computing. It implies that the financial providers must be ready alongside the population of the

geographical entity, and both must be ready to embrace the changes for economic sustainability to be achieved. The digital platforms in the post COVID-19 era would also ensure payments through Unstructured Supplementary Service Data (USSD), Automatic Teller Machines (ATM), Points of Sale (POS) gadgets and many more that are simple and easy to access, even in the rural areas. This is how economic activities can be supported for the new mode of business operations (Wakdok 2018).

### *Consideration by Accountants and Other Financial Service Providers as they Plan for the New Normal*

According to Schmitz and Grayston (2020) uncertainty is the only certain thing lurking around businesses and their transactions during the COVID-19 pandemic. To move ahead and be certain of our businesses, it is pertinent for accountants and other financial service providers to prepare for the post COVID-19 world. The acceleration of digital transformation that many organizations had already set in motion prior to the COVID-19 era must be maintained. IMF (2020) says countries of the world, the developing economies inclusive, were already in motion to accepting new technological changes that would support business transactions into the future. In this dispensation, it is left for both consumers and financial service providers to embrace the change in technology so as to keep economic activities possible (Schnitz and Grayston 2020).

Rees (2020) maintain that the COVID-19 crisis has made it possible for services/goods providers and the consumers to have a sudden glimpse into a future world. This informs why technology adoption should be extended to, and adopted with speed by all developing countries, including Nigeria, if they are to remain relevant in the new normal (Asuquo et al. 2020b). Retailers have started moving to contactless and online shopping/delivery, while insurance companies and tax authorities have transitioned to self-service claims assessment. Organizations have rolled out technologies that enable remote working for the majority, if not all, of their workforce (Schmitz and Grayston 2020).

Rees (2020) outlined technological tools that can help financial service providers and their customers to move on, negating the impact of COVID-19 pandemic. Medical services providers are beginning to warn that the pandemic may become endemic, therefore, to remain relevant, accountants and other service providers in finance must do the needful, such as:

### *Putting the Right Connections in Place*

Rees (2020) opines that Accountants and other financial service providers should be able to access their business data and applications. The use of cloud applications like Google Docs and Xero is easy and affordable and there should be the readiness to set up an outreach team with the remote access software. Adeyinka and Olugbamila (2015) emphasize that the greatest impediments to effective remote working are inadequate technology and infrastructure. These are provisions expected to be put in place by governments in developing economies,



alongside with the organized private sector. These sectors, the public and private, would be the better for it in the long run, considering digital economy which the 21<sup>st</sup> century is rolling on effectively (William and Tavneet 2016).

Wakdok (2018) indicates that to optimally adopt and accept financial inclusion based on the provision of adequate technology and infrastructure, necessary risks assessment to elucidate the challenges of transitioning a workspace to remote environment must be carried out. Rees (2020) identifies the major concern here as finding the right mix of tools to assist in the transition, factoring in cybersecurity concerns, employee wellbeing as well productivity and convenience. Singhraul and Batwe (2020) assert that financial service providers need to stay safe and secure in the new dispensation. According to Rees (2020) a security vendor recently detected more than 230,000 COVID-19 related cyber-attacks including, ransomware, business email compromises and malicious domains. These pose the threats that culminate into major challenge of securing business data in remote basis financial transactions of financial inclusion. To mitigate this, McEwan (2020) suggests the use of effective anti-virus software or other end point protection.

Swamy (2011) suggests that for financial inclusion to develop properly, financial service providers should also use the virtual private network (VPN) especially where the remote access software is used by the staff for on-premises systems. This makes it pertinent for financial service providers to keep in touch and motivate their clients.

Rees (2020) suggests the use of conferencing apps such as Zoom, GoTomeeting or Cisco Webex. He opines that a balance is expected to be maintained by financial service providers through minimizing any feelings of isolation that employees may have owing to the remote operations they engage in. These apps are therefore essential for regular team meetings so as to keep employees' minds on the job. Chat tools, such as 'Slack', 'Chanty' and 'Workplace by Facebook' can improve communication so greatly, even in rural settings, once the infrastructure is in place.

Another implication for financial service providers is how to manage remote teams effectively. According to McEwan (2020) cited in Rees (2020) "remote work success depends heavily on whether employees are entrusted to the work, even if managers do not see them." In Nigeria, for instance, it is obvious that the necessary gadgets that would help to keep track of the actual work being done by employees in remote basis by the financial service providers as owners of the business are available. The success of this, is still dependent on the provision of infrastructure to support the post COVID-19 era.

Ojedokun (2020) puts it that business transformation, using the cloud is something to consider by accountants and other financial service providers. McEwan (2020) says that in adapting to the pandemic, significant digital transformation is imperative for many businesses, and the clouds apps offer long-term business benefits. He maintains that migrating on-premises data to the cloud will make it easier to access files remotely and has the tendency to minimize or completely remove the expenses incidental to server's maintenance. It is noted that Microsoft's OneDrive, Google Drive or Dropbox Business are platforms that can do this (McEwan 2020).

To be relevant in the post COVID-19 era, accounting and finance professionals must ensure that customers' interaction is taken to a new level. Rees (2020) assert that in-person meetings are good, but even at the best of times, they are not always possible. The advent of conferencing apps has offered the opportunity to catch up with clients more often, and travel expenditure is reduced for the organization. Webinars become a great option for educating customers through apps like Zoom video and email newsletters are important in the new dispensation to keep customers informed and educated, giving solutions to whatever challenges the business entity or the clients may have (Anyalenkeya 2020).

The Institute of Chartered Accountants of Nigeria (ICAN) (2020) opines that it is apt to say that companies in the developing economies that would succeed in the new normal are likely to be those that are smart about identifying prospects and interact frequently with customers. ICAN in its 2020 Accountants' workshop on ICT proffers that while CRM systems were traditionally designed to help manage business clients, new platforms like Salesforce and Insightly have helped to market new consumers. These platforms, according to the Accountants' Institute, are equipped with advanced tools like analytics that could identify sales opportunities, manage sales staff, and more.

Asuquo et al. (2020a) want accountants and other financial service providers to adopt performance management best practices. The shift to remote working, as proposed in the post COVID-19 era will force managers to do away with traditional management practices that refused to grow with time (Nwanne, 2015). According to McEwan (2020) when the dust settles, we will see that our remotely working staff would be just as productive, if not more, than during the traditional era of managing staff and work. Sahay et al. (2020) believe that businesses in future, adopting technology with sophisticated key performance indicators will realize how effective their employees are and the much value the business is achieving.

Schmitz and Grayston (2020) believe that the firms that would succeed in adopting the right technologies in the post COVID-19 era, and adapting to flexible work arrangements are most likely to do better in their businesses, even in the future.

#### *Exploiting Digital Disruption in the Post COVID-19 Era by Financial Service Providers*

Digital disruption, according to Ojedokun (2020) are the changes that occur when new digital technologies and business models affect the value proposition of existing goods and services. According to him, disruption refers to a very specific process that explains how entrants can successfully compete with incumbents. It has to do with business model innovation that enables entrants to enter market with cheap, easy to use products. Digital disruption could be a combination of new and existing technologies, but the focus is the impact/influence it would have on the society. This concern is the acceptance the technology would have when the society notices the disruptive experience.

A model of digital disruption would show how new digital technologies (Cloud, Social mobile, Big data, Internet of everything) would give rise to New sources of value, which in turn would give rise to improved economics. The improve economics would then result in marginal cost reduction, wherewith customers' loyalty would increase, leading to high profit margin, revenue growth and eventually a higher enterprise value (Evans and Adeoye 2016). Ochi et al. (2021) opine that there would however be the vicious cycle of business growth and development, where the new sources of value will support new business models, and this in turn will support new types of customers and employees. The new types of customers and employees will support the new leadership styles showcased by management, and the cycle will go back to support the new sources of value derived by the financial service providers.

Ojedokun (2020) maintains that digital disruption at any given level should have four basic elements, which are:

1. The business concept, which evaluates the current and potential market, business development plans, pricing strategies, delivery of services or goods and the like.
2. The technology that is in place, looking at inventions, the design and usage that the new technology will expose the business operation to.
3. The industry the business is found would influence the processes, standards that have been in existence and proposed changes to existing standards, methods of performance and how the customers will accept the changes.
4. The society where the disruption is going to be carried out is an important element to observe. This has to do with the culture of the people and how the change is welcome. What about their habits and movements of the new technology? This is what has recently been witnessed during the 5G Network technology movement in many parts of the world.

In the final analysis, digital disruption would prove useful in a post COVID-19 era if the business owners and the society would recognize the change, the financial service providers would build their identity in the new changes and our collective future is brought to life (Ojedokun 2020).

#### *Audit Technology in the Post COVID-19 Era*

Schmitz and Grayston (2020) assert that before the pandemic, many audit firms have been in the process of adopting technology-enabled audit processes, using digital client-platforms. It is practically seen in the COVID-19 pandemic situation that during the lockdown and afterwards, physical distancing has magnified the need for such technologies and platforms, especially when it relates to client engagements. Rees (2020) reported that an Auditor, Peter Kerr of the Australian National Audit Office, commented that audit in the post COVID-19 age is becoming an automated exercise. He said "COVID-19 just shows that the focus

shifts from manual reconciliation to more automation. Technology fast-tracks audits through automated procedures.”

However, Hucklesby and Macdonald (2004) opined that for the new normal to balance with the technology adoption by accountants and other financial service providers, the clients need to be technologically up to date. In an audit situation, the new order demands that clients also need to have the technology in place to allow for data to be made accessible to the auditors.

### *Theoretical Framework*

This study was based on some theories in Economics, accounting and finance, majorly the theory of information asymmetry, and theory of financial development.

The theory of information asymmetry that was developed in the 1970s and 1980s explains the financial constraints on small firms and poor borrowers and how intermediation would ensure efficient allocation of financial resources to avoid market failures. This also concerns an imbalance between buyers and sellers. In this context, the buyers are the clients in the financial inclusion net while the sellers are the financial service providers. When financial intermediaries are able to overcome the problems of information asymmetry, there would be efficient distribution of goods and services in a free market, and there would be no market failure. The post COVID-19 era would make the financial service providers to breast up and provide adequate information through digital channels, and this would meet the clients who use the service at the right time. This will then give adequate flow to financial development.

Theory of financial development has a proviso that private contractual arrangements form the basis of financial activities. More so, financial theory's legal adaptability holds that legal traditions differ in terms of their ability to adapt to changing commercial and financial circumstances. The theory provides that effective adaptation to changes in operating conditions will concomitantly support financial development more effectively. In this context, this includes financial structure, inclusion and deepening. Financial deepening has a nexus with financial inclusion as economists use it to refer to increased provision of financial services and better access for different socio-economic groups. A deepened financial system would encourage governments and organizations to set up public sector banks that can offer pro-poor services as part of financial sector reforms. This will be an improved performance from the traditional banking and other financial services provision. This theory ensures that a deepened financial system that is inclusive ensures both inclusive and pro-poor growth that is equitable. This is an aid to economic development.

### *Empirical Framework*

Many authors have empirically studied the concept of financial inclusion at various dimensions, though a study has not yet linked the subject matter to the COVID-19 pandemic. Anyanwu (2004) empirically studied the empowerment of rural households through financial inclusion. He obtained secondary data,

analyzed same and found out that there was a close relationship between financial inclusion and the empowerment of the rural dwellers. The study concluded that financial inclusion can enhance economic stimulus among economically weaker sections of a country, the rural dwellers.

Murari and Didwania (2010) investigated the impact of microfinance on poverty, using financial inclusion as a catalyst. The study, conducted in India adopted the regression analysis method and analyzed the secondary data obtained from banks and primary data from 260 rural dwellers in the country who did not have incomes large enough to access banking facilities. The result indicated that financial inclusion has significant influence on poverty eradication and could provide self-employment opportunities for the poor and vulnerable in the society.

Swamy (2011) examined the trends of financial inclusion in India and found out that the number of banks is inadequate for the large rural population in India living in rural areas. It was concluded that greater number of small farmers was not included in the provision of basic financial facilities. This was believed to be responsible for the negative slope in the contribution of agriculture, the mainstay of the rural dwellers, to the Indian GDP.

Sarma and Pais (2011) researching on financial inclusion and development identified the factors that had significant association with financial inclusion in cross-country level. The study reveals that levels of human development in a country have a significant relationship with financial inclusion, though with few exceptions in the hypotheses tested. The study further revealed the significant relationship of financial inclusion with physical infrastructure. On the study of financial service providers, such as banks, the study however indicated that government ownership of banks was not significantly associated with financial inclusion.

Onaolapo (2015) studied the effect of financial inclusion on the economic growth of Nigeria. The major variables in the study were poverty reduction, and financial intermediation as indices of economic growth, while lending, means of payment and investments indicated for financial inclusion. The study found out that there is a significant relationship between financial inclusion and Nigerian economic growth. It was recommended that financial regulators in the Nigerian economic space should issue proper guidelines and regulations to encourage financial intermediation among the poor rural dwellers in Nigeria.

Gebrehiwot and Makina (2015) researched on “financial inclusion in Africa, using GMM dynamic panel data analysis”. The paper examined the determinants of financial inclusion across 27 African countries. They adopted a model that studied the problems plaguing against past studies of determinants of financial inclusion. Their model showed that financial inclusion is significantly and positively related to its lagged value, GDP per capita and mobile infrastructure, and negatively related to government borrowing. Their recommendation was that the upward trend of mobile infrastructure penetration in Africa is a welcome development and should be encouraged. In the same vein, the large ratio of government debt to GDP which hampers efforts to achieve financial inclusion should be minimized.

## Methodology

This study adopted a survey, descriptive and causal research design. Therefore, an instrument, an unstructured or checklist questionnaire was drawn. The population of the study was 150 that included accounting/audit firms, insurance companies, financial houses, Central Bank of Nigeria, Pension Fund Administrators (PFAs), and accounting academics. The choice of this population was based on the fact that corporate organizations, both private and government agencies in Nigeria and individuals have one stake or the other in the use of financial information and devices. We had the believe that their access to financial information can influence their decision about financial inclusion and increase in productivity which can enhance socio-economic activities in the post COVID-19 era.

Judgmental sampling technique was used to ensure that respondents to the administered questionnaire were drawn from the six geo-political zones of Nigeria. The Taro Yamane sampling size method was used to select 109 respondents across those six geo-political zones. The total number of instruments (questionnaire) retrieved, which we gathered data from were 102, and the data were analyzed using the Pearson Moment Correlation Coefficient at a 0.05 level of significance.

## Model Development

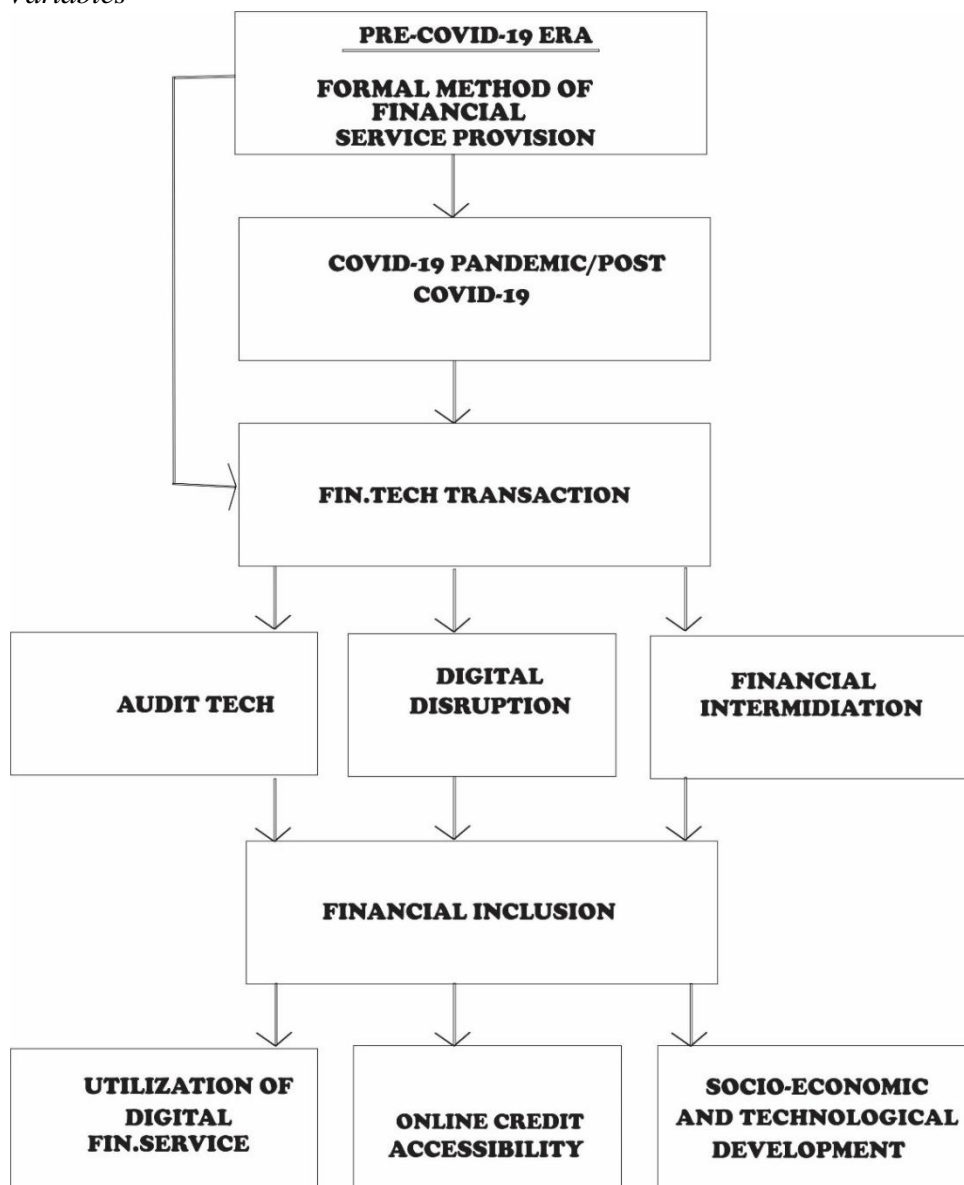
The model for this study was developed as shown in the schematic representation of the conceptual framework.

In the pre-COVID-19 era, the formal/traditional method of providing financial services by banks and other financial institutions was in vogue. Services that make up financial inclusion were skeletal, largely because of information asymmetry.

During the COVID-19 pandemic, the traditional method of financial services provision was disrupted and prominence was given to financial inclusion activities because of the lock-down and social distancing policies that were in force. Fintech transactions became a new norm in financial transactions during the time. The variables of Fintech in this study are: Audit Technology (AT); Digital Disruption (DD) and; Financial Intermediation (FN) which became a new normal in financial services and major drivers of financial inclusion. The benefits of financial inclusion therefore become its sub-variables, which are: Utilization of digital financial services; online credit accessibility, and; socio-economic and technological development.

## Development of Hypotheses

The hypotheses for this study were developed based on the relationship amongst the variables as shown in Figure 1.

**Figure 1.** Schematic Representation of Conceptual Framework and Derivation of Variables

H<sub>0</sub>1: There is no significant relationship between audit technology and financial inclusion in Nigeria.

H<sub>0</sub>2: There is no significant relationship between digital disruption and financial inclusion in Nigeria.

H<sub>0</sub>3: There is no significant relationship between financial intermediation and financial inclusion in Nigeria.

H<sub>0</sub>4: There is no significant joint relationship between audit technology, digital disruption, financial intermediation and financial inclusion.

*Model Specification*

A relationship was established among the variables, using an adopted model from Uwah and Udoayang (2020), following the general equation for regression,  $Y = f(X)$ , indicating that Y depends on X,

The model was adapted as follows:

Financial Inclusion (FI) =  $f(\text{Financial Technology Transactions})$

i.e.,  $FI = f(FT)$

and the equation is written as:

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \mu$$

Where,  $\alpha$  is the intercept, and  $\beta_1, \beta_2, \beta_3$  are the coefficients of the variables respectively, which show the kind of relationship between dependent and independent variables and  $\mu$  is known as the error term. Therefore,

Y = Dependent variable, which is financial inclusion.

X = Independent variable, which is Post COVID-19, with financial technology transactions as a major variable and the sub-sub variables were indicated by: audit technology, digital disruption and financial intermediation.

Financial inclusion, as the dependable variable was indicated by the following sub-variables: Utilization of digital financial services; Credit accessibility and; Socio-economic and Technical development.

A bivariate statistical analysis, the Pearson Moment Correlation Coefficient was used to test the above hypotheses using the data gathered from primary sources, and having established that a causal relationship existed between the data gathered, we had to test for evidence of good correlation.

From our model,

$$FI = f(FT)$$

$$FI = \alpha_0 + \beta_1 AT + \beta_2 DD + \beta_3 FN + \mu$$

Where, AT = Audit technology.

DD = Digital disruption.

FN = Financial intermediation.



### Testing of Hypotheses and Analysis

Hypotheses one to four were tested using SPSS. Financial inclusion as the dependent variable was used against the proxies of financial technology transactions, a major representative of the independent variable. A confidence interval of 95% was taken and the decision rule was to reject the null hypothesis if the calculated value,  $p$ , is less than the alpha value of 0.05 ( $p < 0.05$ ) and to accept, if otherwise.

### Results and Discussion

This section shows the tables and the findings from the study with the associated results.

**Table 1.** Correlation Analysis Showing the Relationship between Financial Technology Transactions' Sub-Variables and Financial Inclusion

Pearson Correlation	F INCLUSION	AT	DD	FN
F INCLUSION	1.000	0.770	0.156	0.843
AT	0.770	1.000	0.082	0.734
DD	0.156	0.082	1.000	-0.096
FN	0.843	0.734	-0.096	1.000
Sig.(1-tailed)				
F INCLUSION	.	0.000	0.115	0.000
AT	0.000	.	0.265	0.000
DD	0.115	0.265	.	0.000
FN	0.000	0.000	0.230	.
N				
F INCLUSION	102	102	102	102
AT	102	102	102	102
DD	102	102	102	102
FN	102	102	102	102

Source: SPSS V.20 Field Data Analysis (2020).

The data are presented with tables and analyzed using SPSS Package. In Table 1, the entire pair wise correlation coefficients indicate the actual significance level for each correlation. The table reveals that financial inclusion correlates with Audit Technology (AT) at 0.77 that shows a high correlation level (about 77%) of relationship. The table also reveals that the  $p$ -value is less than the alpha level ( $p < 0.05$ ). This was significant at 0.000. Using our decision rule, the null hypothesis 1 was rejected, and the alternate accepted. This means that there is significant relationship between utilization of digital financial services through financial inclusion and Audit technology.

Hypothesis 2 was on financial inclusion and the proxy of financial technology transactions. Using Digital Disruption as a sub-variable of financial technology transactions, the correlation with online credit accessibility has  $r$  of

0.16, an insignificant relationship of a paltry 16%. However, the table reveals that the calculated p is greater than the alpha level ( $p > 0.05$ ). Therefore, using our decision rule, null hypothesis 2 is accepted.

In the same vein, hypothesis 3 on financial inclusion and financial intermediation as a new normal caused by COVID-19 pandemic in Nigeria was tested. The relationship has  $r$  of 0.84 as the correlation between financial intermediation and Socio-economic and Technical development, a significant correlation of about 84%. With Table 1 showing the calculated p-value being less than the alpha value ( $p < 0.05$ ), the null hypothesis was rejected, using our decision rule. This means there is significant relationship between financial inclusion and financial intermediation.

**Table 2.** Analysis of Variance (ANOVA) Associated with Multiple Regressions on the Joint Relationship between Variables of Financial Technology Transactions and Financial Inclusion

Model	Sum of Squares	df	Mean Square	F	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Sig.	Result
Regression	59.262	4	14.816						
Residual	10.475	56	0.187						
Total	69.738	60		79.203	0.922**	0.850	0.839	0.000	Significant

\*\*Dependent variable: Financial inclusion. \*Independent variable: Financial Technology Transactions (AT, DD, FN).

Source: SPSS V.20 Field Data Analysis (2020).

Table 2 shows analysis of variance (ANOVA) which indicates that when the multiple correlation is converted to F, it shows an F ratio of 79.20 that is significant at 0.000. This depicts that all the sub-variables of financial technology transactions in this study when jointly regressed against financial inclusion had a lower p-value than the alpha value ( $p < 0.05$ ). A multiple correlation coefficient,  $R$  of 0.922 was also realized, indicating a very high correlation. The  $R^2$  value of 0.850 indicates that all the independent variables combined contribute about 85% to financial inclusion. Therefore, with a lower p-value of 0.000 that is lower than the 0.05 value, the null hypothesis 4 was rejected. This implies that there is significant joint relationship between Audit Technology; Digital Disruption; Financial Intermediation, and Financial inclusion.

**Table 3.** Coefficients of the Joint Relationship between Variables of Financial Technology Transactions and Financial Inclusion

Model	Unstandardized Coefficients		Standardized Coefficients	95% Confidence interval for B			
	B	Std. Error	Beta	Lower Bound	Upper Bound	t	Sig.
(Constant)	-1.025	0.224		-1.474	-0.576	-4.573	0.000
AT	-0.013	0.093	-0.014	-0.199	0.173	-0.138	0.890
DD	0.085	0.053	0.094	-0.021	0.190	1.609	0.113
FN	0.680	0.080	0.665	0.520	0.841	8.483	0.000

Source: SPSS V.20 Field Data Analysis (2020).

Table 3 shows the coefficients of the joint relationship between variables of financial technology transactions adopted for this study and financial inclusion. The regression shows a significant relationship (0.000) in the overall, though the relationship of AT and DD do not show significant values. The Beta for AT is -0.014 (not significant,  $p > 0.05$ ), 0.094 for DD (not significant,  $p > 0.05$ ).

In Table 1, the pair wise correlation coefficients show the level of significance for each correlation. Financial inclusion and Audit Technology (AT) has  $r$  of 0.77, or 77% relationship, indicating a high correlation. Equally, the table reveals that the  $p$ -value is less than the alpha level ( $p < 0.05$ ) and was significant at 0.000. Since the null hypothesis was rejected, it means that audit technology, relate significantly with financial inclusion through the utilization of digital financial services. It is possible that this result arose because of the automation of audit services. During the pandemic, social distancing was observed and for the service to continue, Auditors adopted the automation of their roles to the clients. The result, as it were, is an indication that aside from the Auditors, the clients are ready for digitalization of their work, so that the auditors can be effective and efficient in their audit functions.

Hypothesis 2 showed an insignificant relationship between digital disruption and financial inclusion, with online credit accessibility as its proxy. The reason for non-correlation of the variables is believed to be as a result of slow adoption of digital services by the service providers as well as their clients. In Nigeria, power supply is epileptic with most customers not being able to power their mobile phones and other accessories that supports the digital disruption. The drag in providing this technology owing to environmental conditions could be responsible for this result.

Hypothesis 3 that was on the relationship between financial intermediation and financial inclusion, represented by socio-economic and technological development showed a significant result. This result may be as a result of the lower cost of transacting loans and other payments, which hitherto, would have taken the rural dwellers out of their comfort zone to negotiate for such facilities. With the encouragement and campaign for SMEs in Nigeria to be involved in e-commerce, the people have cashed in on the development to have easy business mechanism than it used to be when it was manually operated.

Hypothesis 4 measured the joint relationship between the sub-variables of the independent and dependent variables. The result showed a positive relationship. This may likely be from the fact that financial inclusion is accepted by majority of rural and urban dwellers in Nigeria. It is easily understood that there is cost reduction and time-saving when the era of formal financial services provision is compared with what is obtained in the digital dispensation of doing business. There have been various groups and individuals making advocacy for the adoption of the 'new normal' because of its simplicity.

## Conclusion and Recommendations

This study was conducted to examine the relationship existing between the Fintech-enabled 'new normal' arising from the activities of the COVID-19

pandemic. Variables supporting the digital technology and those supporting financial inclusion were regressed against each other, and the result gave an overwhelming support that the role of accountants and other financial service providers should move beyond the traditional formal financial service provision, to adopting and moving ahead with the 'new normal' services to their clients.

This study recommends that the governments (Federal and States) in Nigeria who are in charge of the public sector economy should provide the enabling environment for financial technology to thrive as a driver for financial inclusion.

The private sector which is the domain of investors and financial service providers should realize that in a competitive world that we are, most investors will close shop to their competitors if they are not willing to move along with technology.

The socio-economic indices of development are still very low in Nigeria. There must be active participation by the rural dwellers who are the majority of the population. More so, the small-scale entrepreneurs who are known to contribute so much for economic development, should be encouraged to be financially inclusive.

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