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Implications of Financial Technology for Professionals in Financial Services in Nigeria

Sunday Mlanga
Department of Accounting, Business Administration, Banking & Finance
Faculty of Management and Social Sciences
Alex Ekueme Federal University Ndufu-Alike Ikwo, Ebonyi State
E-mail: sundaymlanga@yahoo.com

Abstract

The study conceptually and theoretically examined the implication of Financial Technology (FinTech) for professionals in the financial system. It was discovered that any entity or professional within the financial milieu that fails to align with the ever changing technology incorporated into the financial system will be left behind. Hence, it is recommended that professionals must make deliberate attempts to the technologically inclined as regards FinTech. Also, regulators must also be technologically adept in a bid to curb excesses that may arise as a result of the rise of FinTech such as non-compliance with the data protection of customers while firms must regularly train its staff and consciously build dynamic capabilities to ensure that the firms adapt to the dynamic nature of FinTech within the financial system. Also, the government in Nigeria just like in China should implement policies that will further strengthen FinTech and encourage such innovators within the borders of Nigeria.

Keywords: FinTech, Innovation, Professionals, Financial Services, Nigeria

1. Introduction

FinTech simply stands for Financial Technology. In various economies across the world, the financial system has played crucial roles in ensuring sound, comprehensive and sustained growth and development within such economies. Considering the rapid change in technology that is evident in the ever changing world, the financial system has not been left unaffected as it has been characterized with various changes with more focus on digital channels. This digitalization that has led to disruption (disruptive innovation) within the sphere of the financial system can be referred to as financial technology or “Fintech” (Skan, Dickerson & Masood, 2015 in Truong, 2016). As a result of Fintech, various gaps within the sphere of the financial system have been filled as several solutions have been proffered to problems with the introduction of channels such as PayPal and the digital currency Bitcoin (Gonzalez, 2004). According to the World Fintech report (2018), Fintech has a synergetic relationship with the traditional financial system in terms of improving customer loyalty, customer trust, incorporating infrastructure and aiding in regulation. However, Fintech has leveraged on the gaps left unattended to within the financial structure such as increased access to customers via online and mobile channels as this spurs financial inclusion, flexibility of introducing innovative products and services and as such breaking the status quo. A major example lies in the insurance industry with the introduction of Airbnb introduced by Slice Labs Inc. which provided insurance platform coverage for customers for only the duration of their stay in a particular area, this authenticates the fact that financial technology transcends just the banking system and as such impacts other professionals across other fields in the financial system.

Also, as remarkably averred by Bergara and Ponce (n.d), Fintech has challenged the 'order of the day' as regards the practices within the financial environment with its accompanying models and practices including the regulatory framework within the financial system with the rise of automated channels within the system. Suffice to say, Fintech offers traditional finance with unparalleled victory over challenges through waves of new innovative ideas (Gelis & Woods, 2014). Fortunately, in a technologically driven world, the financial system has proved not to lag behind in leveraging on technology across the world as Fintech has permeated the economic ambiance of countries such as Australia, America, the United Kingdom (UK), China and even South Africa. For instance, Gelis and Woods (2014) posited that Fintech has taken roots in London in such a manner that London happens to be the undisputed Fintech capital of Europe as a result of the existence of the Silicon Valley in London. Also, there exists the largest Fintech hub in California, USA with the presence of various Fintech channels including the lending club as China is not also left out of the scene with the advent of channels like Alipay, Alibaba and Taobao. However, Fintech is just finding its foot in a nation like Nigeria with the recent establishment of the Fintech Association of Nigeria. Looking forward to the prevalence of Fintech in the financial system of Nigeria according to PwC (2017), only 40% of clients of businesses in Nigeria make use of mobile applications and only 20% of those clients use it once per month. In other words, FinTech has not been well established in Nigeria which necessitated the establishment of the FinTech Association and some other measures in a bid to catch up with the ever dynamic world of technology.

Although, the World FinTech report (2017) noted that FinTech was spurred by the provision of a conducive atmosphere ranging from increased expectations of customers to the ever evolving pace of technological change there exists serious effects on the modus operandi within the financial system including its channel of service, the professionals within the system such as regulators, bankers, insurers and more sensitively its regulatory framework. Contrary to the traditional method adopted within the system, the existence of FinTech platforms has increased financial inclusion as well as reduction in cost and information asymmetries within the system. However, these benefits are not without challenges which necessitate an inquiry into the implications of FinTech on professionals within the financial setting in Nigeria considering the fact that FinTech is not yet pronounced in Nigeria as it is in some other countries of the world.

Technology has evolved to take centre stage in the everyday affairs of man and the financial system is not excluded. As a result, the rise of technology in the financial system popularly referred to as FinTech has aroused several issues in literature. There exists mixed response to the rise of FinTech as some scholars believe that it has a negative effect while some believe otherwise (Abaenewe, Ogbulu and Ndugbu, 2013; Akhisar, Tunay and Tunay, 2015), hence, the need to conduct a study into the subject matter to ascertain the real fact. Also, FinTech has operated in various countries across the world but Nigeria and Africa as a whole has been found to be back benchers in this move. Could it be because the rate of technology in Africa is still developing or because the challenges of FinTech are perceived to outweigh its benefits? Furthermore, the advent of FinTech has been received with mixed reactions for professionals within the system as some see it as an opportunity; others see it as a termination letter in disguise. Could this be the reason for its non-prevalence in Nigeria? The foregoing makes it imperative to conduct an inquiry into the implications of financial technology on professional financial services providers in Nigeria.

2. Previous Research

2.1. The concept of FinTech

FinTech refers to firms that premise their financial services on a sound technology platform in a bid to invent new financial products and services which can reach a wider variety of entities, corporate and individual customers alike. FinTech has gained ground by the reason of its use by startup firms gaining entry into the market as they try to change the traditional method of doing things by leveraging on cutting edge technological channels in areas of asset management and money transfer (Truong, 2016). One remarkable feature of FinTech is its ability to ensure efficiency within the market and at same time keep transaction costs very low. Congruently, Kim, Park, Choi and Yeon (2015) in Erman (2017) described FinTech as a platform which provides for the intersection of technology and finance. Simply put a combination of information technology and provision of financial services (Lee & Kim, 2015 in Erman, 2017). Similarly, FinTech can be viewed as technologically enabled innovation within the financial system that can lead to the formation of new services, business models, products, processes and even institutions covering a wide assortment of financial innovations (IAIS, 2017). These products and services which range from crowdfunding to E-Trading as far as blockchain technology have accounted for the visible change in the world of finance across the world. Fortunately, as technology improves, FinTech will continue to remain relevant in the financial system as identified in Table 1 below.

Table 1: Sectors of Innovative Services

Sectoral Innovations				
Financial Support Services	Credit, deposit, and capital-raising services	Payments, Clearing and Settlement Services		Investment Management Services
	Crowdfunding	Retail	Wholesale	High-Frequency Trading
	Lending Marketplaces	Mobile Wallets	Value Transfer Networks	Copy Trading
	Mobile Banks	Peer-to-Peer Transfers	FX Wholesale	E-Trading
	Credit Scoring	Digital Currencies	Digital Exchange Platforms	Robo-Advices
Market Support Services	Portal and data aggregators Ecosystems (Infrastructure, Open source, APIs) Data applications (big data analysis, machine learning, predictive modeling) Distributed Ledger Technology (Blockchain, smart contracts) Security (Customer Identification and Authentication) Cloud Computing Internet of things / Mobile Technology Artificial Intelligence (bots, automation in finance, algorithms)			

Source: BCBS (2018)

2.2. Antiquity of FinTech

FinTech like every other technological system has advanced or evolved overtime with both disruptive and slight changes in a bid to stimulate performance within the financial system. Right from time immemorial, countries made us of printing press in printing paper currency demonstrating the earliest adoption of FinTech. However, in 1838, Samuel Morse demonstrated the electric telegraph system which was a major milestone in the sphere of FinTech necessitating the establishment of the first cable line Trans-Atlantic in 1866 which aided in the transfer of money between reserve banks and the treasury department as mostly used by the Fedwire Funds Service as established in 1918 (Amer, Barberis and Ross, 2015). Furthermore, enlightenment as regards FinTech took centre stage with the publication of Keynes book in 1920 titled 'The Economic Consequences of Power" as the book addresses the connection between finance and technology. However, a major breakthrough within the sphere of FinTech come in 1950 as the Diners club issued the first 'general purpose' credit card as invented by Frank McNamara (Amer, Barberis and Ross, 2015). This technological pattern led to the discovery of FinTech products like the Automated Teller Machine and Point of Sale terminals of the late 20th and early 21st centuries. Furthermore, Telex networks were established in USA, Canada, Germany and France in a bid to promote the communication in the evolution of FinTech. In 1967, Barclays launched the world's first cash machine while the clearing house interbank payments system chips began operation in 1970 in a bid to stimulate interbank payments in New York City. In 1971, the capital market felt the impact of FinTech with the invention of electronic trading of securities by the National Association of Securities Dealers Automated Quotations (NASDAQ) while the Society for Worldwide Interbank Financial Telecommunication (SWIFT) was established in 1973 by 239 banks across 15 countries to ensure easy international transfer of payments. In 1981, Bloomberg invented the Innovative Market Solutions to ensure that real time market data and financial calculations can be provided to firms in the Wall Street (New York stock market). Also, in 1982, Porter invented the Tradeplus which started the online brokerage investment revolution that reduced the cost of online trading. In 1993, proper organizational structures began to form around FinTech with the invitation of the project tagged 'financial services technology consortium' earlier referred to as 'FinTech' by Citicorp in a bid to ensure that the opposition to FinTech is considerably reduced. In 1995, Fargo offered an online checking account while ING Group launched the first virtual bank without physical branches in Canada. Meanwhile, in 2009, the Bitcoin SW was released while Kickstarter introduced a reward based crowdfunding platform at the same time. Then, Google wallet was introduced by 2013 for customers to make purchases from their mobile phones using the NEC technology.

2.3. Benefits and Challenges of FinTech

FinTech like every other technological system across the world has its benefits and accompanying challenges. One major benefit of FinTech is the expectation, behaviour and preferences of customers as they embrace these changes in technology in a bid to operate more easily and comfortably within the financial system. As a result of the demand for personalization, continence and prompt response to issue, FinTech has spurred financial inclusion across the world as the financial channels can now reach more people wherever they are rather than people coming to the system. Furthermore, the system of FinTech is versatile and flexible as it can be altered to easily catch up with the pace of technological advancement in the ever changing world.

However, the challenges of FinTech include limited compliance knowledge, lack of developed business model, the absence of large capital and customer base that their orthodox counterparts have gathered over the years. More so, these customers are loyal to their institutions and are reluctant in embracing a 'new trend' of doing things within the financial system as every innovation seems to be more of suspicious than embraced, hence, people rather stick to the status quo. Furthermore, many firms that should have embraced FinTech have failed to do so for the fear of losing all the investment they have made in the business from scrap as many models, modalities, plans, modus operandi, assets and liabilities will be altered or changed completely and such disruptive change may lead to losing of some few but very important customers who are used to the old system, laying off of some dedicated but archaic workers and several investments in plans for the business. Also, a major challenge is bridging the cultural and behavioural gap that will exist between the traditional and new mode of operations as large money will be spent on orientation while some old customers may tend to leave.

2.4. FinTech and Professional Services Providers

FinTech operates within the financial terrain and as such has major influence on every element within the sphere of the financial system including professionals within the financial scene. These professionals include professionals in the banking system, insurance, accounting, asset management and even in the regulatory cadre. As a result of FinTech in the ever changing world, it therefore implies that professionals must be technologically adept and reasonably flexible in catching up with the changes within the system as any choice other than that is a choice to be left behind. Specifically, banks tend to risk failure in strategies which may lead to a great loss, cyber risk, operational risk, and compliance risk as a result of failure to comply with the data protection regulation and worst of all, money laundering or terrorism, financing risk (BCBS, 2018). Conversely, they tend to benefit efficient banking as well as increased stability in the system. This implies that bank supervisors must be at alert and more technologically inclined to ensure that safe banking practices are followed. Furthermore, it implies that professionals within the financial ambiance must be well trained constantly to keep up with the pace of the ever dynamic world of technology which connotes that firms must increase their cost of staff training and as such some professionals in the field may be dropped as they may not be found 'worthy' to enter into the next phase of the events within the system due to the high tech innovation. Therefore, professionals in the financial settings must be sound in the aspect of Artificial Intelligence (AI,), cloud computing and distributed ledger technology. Again, insurance professionals are not left out in the race to acquire more knowledge as regards FinTech with the advent of InsurTech which has made services like Firendsurance, Inspeer and Guevara available in countries like France, Germany and the UK. Also, increased pace of FinTech also implies that professional supervisors must cooperate to ensure that regulations are followed while proper organisation of the regulatory firms must be in place for third service providers and other elements within the system as the rise of FinTech has given opportunity for the rise of Ponzi schemes which is not friendly to the financial system. Ordinarily, regulators should be ahead of other professionals in the system in a bid to set things in order, therefore, professional supervisors must be more technologically inclined to be ahead of their counterparts within the system.

2.5. Global Trend of FinTech

FinTech has gained grounds in various countries and continents across the world though this prevalence ranges from country to country. However, a critical observation of the trend of FinTech in various countries reveals that FinTech is more prevalent and advanced in countries where technology from a holistic view is also more advanced. FinTech is more pronounced in countries like Australia, USA, UK, China, Canada and other developed countries of the world while it is finding its foot in a bid to penetrate into the market in developing countries of the world including Nigeria. For instance, the USA hosts the largest FinTech hub in the world in California. In Australia, according to Davis (n.d), the key FinTech areas are payments, advice, wealth management, crowdfundiung (debt, equity etc.), markets and exchanges, banking, insurance and business management.

Due to the rise of FinTech in Australia, innovation hubs as well as labs have been developed while the FinTech association has been established with more emphasis on the P2P (marketplace) lending. Furthermore, FinTech has risen in China to such a level that it has become a worthy competitor to places like the New York. Shanghai and Shenzhen have been host to FinTech in China as China has risen to the world leader in the FinTech circle with 500 million FinTech users at the end of 2015 (Dezshira, 2018). The rise in FinTech in China can be attributed to the government supportive policies and the loose regulatory framework encouraging innovators to try many innovative chances and ideas within their territory. This has led to the rise of firms like the Baidu, ALibaba and the Tencent. According to the EY in 2017, the global FinTech statistics are stated hereunder:

Table 2: Global Most Used FinTech Services

Transfers and Payments	50%
Insurance	24%
Savings and Investments	20%
Borrowing	10%
Financial Planning	10%

Source: EY (2017)

Table 3: Global FinTech Adoption across Age Brackets

18-24	37%
25-34	48%
35-44	41%

45-54	30%
55-64	22%
65-75	15%
75+	9%

Source: EY (2017)

Table 4: Global FinTech Adoption across Markets

China	69%
India	52%
United Kingdom	42%
Brazil	40%
Australia	37%
Spain	37%
Mexico	36%
Germany	35%
South Africa	35%
United States of America	33%

Source: EY (2017)

2.6. Application of FinTech to the Advancement of Financial Services

FinTech which is simply the incorporation of technology into the financial system definitely has a lot to do with the services rendered within the financial system. The advent of FinTech will ensure the expansion of competition and choice of services as FinTech firms have fewer regulations to comply with. In a bid to make financial services available to as many people as possible, FinTech comes in to improve and make financial inclusion a reality by reaching places physical distribution cannot reach as low cost as far as mobile network can reach such places. Moreso, FinTech takes the focus of services completely away from the source of supply to the customer, his comfort, convenience and access. As a result of this customer oriented approach, the provision of financial services will definitely receive a quantum leap.

2.7. Lag in the Non-Application of FinTech

Economists believe that a policy lag is the length of time that occurs between when a policy is made, when it is implemented and when the effect is seen in the economy. In this case, lag refers to the gaps that may be created within the financial system which may translate to serious issues in the economy at large as a result the inability to incorporate FinTech in a particular financial system. For instance, Africa as a whole lags behind when it comes to financial environments, structures and frameworks as a result of inability to effectively incorporate technology into its financial system. Although, there exists FinTech channels in Africa like mobile money and blockchain technology to an extent but as a result of its shallow implementation in Africa, some gaps have opened up within the financial system. One major lag is the great drawback in the achievement of the reality of financial inclusion. In Africa, financial services reach some selected few as a result of inability of the financial system to ride on the wings of technology leaving most financial transactions in the hands of systems outside the formal financial system. Another lag is the inability of the financial system in Africa to interact effectively with counterparts across the world as they all do not seem to speak the same language at the same level as they operate higher than the system at work in Africa. Hence, financial intermediation beyond the borders of Africa has become increasingly complex and difficult to understand by the average layman who is a customer of the bank or a financial service provider in Afica.

3. Theoretical Literature

The major theories backing the advent of FinTech are the innovation theories. These theories will be considered in this section of the study.

3.1. Theory of Dynamic Capabilities

Teece, Pisano and Shuen (1997) posited that dynamic capabilities focus on private businesses in the ever changing world. The proponents of this theory asserted that firm specific factors such as knowledge and complementary assets inherited during evolution paths shape the competitive advantage of firms. As a result, firms are to build dynamic capabilities in a bid to support long term business performances in an ever dynamic world. This building involves training of staff to adapt to the changes in the environment. Leonard-Barton (1992) hypothesized that the ability to build new innovative firms for competitive advantage is the premise whereon dynamic capabilities is build.

3.2. Theory of Organizational Learning

In a bid to build dynamic capabilities, information must be provided to the whole organisation to ensure an orientation and push such organisation towards the new technology. Ford (1988) as cited by Steensma (1996) averred that the external acquisition of collaboration through inter-organizational collaboration is crucial for technology strategy. In a bid to make new things happen, organisations may fail in several attempts but they must learn through these processes as such firms are likely to underestimate failures and oversample success (Levinthal & March, 1993).

3.3. Innovator's Solution Theory

Christensen and Taylor (1997) as cited by Kariuki (2010) advanced the theory based on the analysis of the major reason behind firms failing is the lack of ability to innovate. The major thrust of the theory is that big firms are not so oriented to tackle the problem of disruptive innovation as such disruptive ideas may serve as a threat to management, power structure and corporate culture. As a result, existing forces within markets and firms tend to resist innovation that may come as a result of FinTech. However, the proponents of this theory assume that firm managers should establish a wall between the oncoming innovation and the existing structure and hierarchy. In this case, an independent business unit can be established to provide a safe environment for innovation (Kariuki, 2010).

3.4. Disruptive Innovation Theory

This theory as proposed by Christensen in 1997 assumed that in an ever changing world, innovation is the best key to competitive advantage. Although, innovation increases the rate of uncertainty and market pressure, and as a result, the more radical the type of innovation, the more difficult it is to easily conclude on its market acceptance. Disruptive innovation improves the growth of any company and lays down a new trend in the market.

4. Conclusion and Recommendations

The study conceptually and theoretically examined the implication of FinTech for professionals in the financial system. From the foregoing, it can be extrapolated that any entity or professional within the financial milieu that fails to align with the ever changing technology incorporated into the financial system will be left behind. Hence, it is recommended that professionals must make deliberate attempts to the technologically inclined as regards FinTech. Also, regulators must also be technologically adept in a bid to curb excesses that may arise as a result of the rise of FinTech such as non-compliance with the data protection of customers while firms must regularly train its staff and consciously build dynamic capabilities to ensure that the firms adapt to the dynamic nature of FinTech within the financial system. Also, the government in Nigeria just like in China should implement policies that will further strengthen FinTech and encourage such innovators within the borders of Nigeria.

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