



The Future of Fintech and Compliance

1.0 Introduction

Financial technology, popularly known as “Fintech” refers to a subset of the financial sector that incorporates modern technology innovations into financial services to create products and services that meet modern business requirements and business plans.

1.1 Brief History of Fintech

Its origins can be traced to as far back as the late 19th century, where the first trans-Atlantic cable was laid in 1866. Over the centuries, notable developments included the slow but steady transition of analogue to digital between 1967 to 2008. Coming into the post-2008 era, peer to peer financial services are progressively becoming the norm².



2.0 Underlying Technologies of the Future of Fintech

The following technologies form some of the infrastructural basis upon which the future of Fintech will be built, and they include:

2.1. Artificial Intelligence and Machine learning (AI & ML):



It refers to the use of computer logic and algorithms to collect data, analyse it, use it calculate predictions and prepare market forecasts for new financial modelling structures and services with increased levels of efficiency among several other use cases.

2.2. Blockchain technology:



Also known as distributed ledger technology (DLT), is a peer to peer infrastructure, consisting of nodes or computers which maintain the consensus of all transactions that take place on the platform through incentivised validators. The technology exists in such a form as to guarantee transparency because every node on the network contains a copy of the same ledger which makes it statistically improbable to hack. This feature of blockchain technology makes it most attractive to financial service applications to the extent that participants on the network can afford to transact directly with each other on a “peer 2 peer” level, without the need for a middle-man.

2.3. 5G Communications and APIs:

The increased evolution of Edge services to 5G communications would greatly facilitate Fintech adoption due to the speed among other capabilities it provides. Faster transaction processing speeds coupled with efficient APIs (Application Programming Interface) plug-ins facilitate an interconnected web of services among functions for the Internet Of Things (IOT) between non-bank firms and bank and account information of individual and corporate customers in a secure way³. Financial services are required to meet the demands of customers and business owners alike in order that they adapt and maintain relevance in the new business landscape for profit making.



2.4. Data centres, Colocation Services & Cloud computing:

Colocation services are physical locations where large data processing units are installed and used by multiple business entities. If a single business entity owns, manages and single-handedly uses such a facility, it can be described as a data centre or as 'the cloud' for the collective combination of all centres designated to providing cloud computing services. On the other hand, if the facility is used by multiple business entities, it is then referred to as a colocation service.



The importance of such a service cannot be overemphasized, most especially across the African continent because it provides scalable, and flexible IT solutions for large data sets that are stored and maintained. The consequence of what this does, is that it gives the region greater control over data that comes from it.

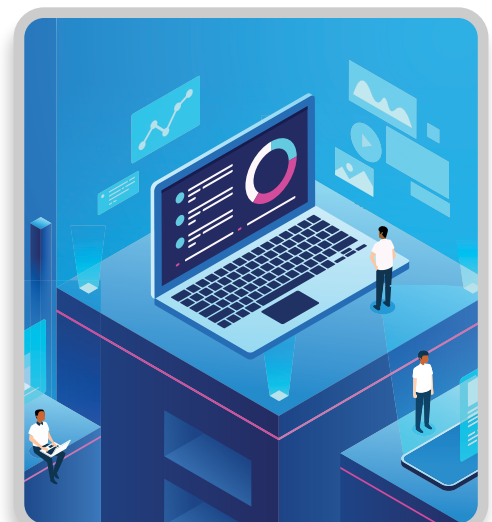
3.0. The Current State Of Fintech

Financial technology created a new breed of financial products and services which are directed at intended target demographics of the population. Some variations of Fintech companies, include: digital banks, Fintech platform financing, insurtech business models, crowdfunding, E-money services, digital payment services among many others. Though Fintech started in the developed world centuries ago, the African continent is comparatively more developed in terms of the technology adopted and implemented at scale through mobile financial services.

Regulation of the Fintech space can practically be determined through the following development standards, namely:

3.1. De facto standard:

A rigid and finite set of rules and regulations that are created and imposed on an industry is the means through which regulation is determined under this standard. The Fintech innovators under this applied standard are often met with stringent and often one-sided views of operating within the jurisdiction where the business is domiciled. Such an atmosphere is not conducive for any business, much less a financial technology industry that is subject to growth at the similar exponential rate of underlying technologies. This is often the case where pre-existing regulations are super-imposed on Fintech companies, with little or no consideration for the peculiarities that distinguish them from other industries.



³ <https://www.bis.org/fsi/publ/insights23.pdf> accessed 12:00pm 4 October 2022

3.2. De jure standard:

This standard is the polar opposite of the previous standard because it gives the industry operators the freedom to organically govern itself through trial and error with little or no intervention from the regulatory body tasked with maintaining compliance while protecting members of the general public.

3.3. Negotiation

This approach refers to the steady consideration of both sides toward a solution that works for all parties involved. All parties benefit most from this approach because there is room for improvement, as far as the innovators are concerned. This course of regulatory method is often used where nascent regulatory frameworks are developed. Negotiations can be approached differently, however, what every regulatory approach in Fintech ought to consider includes the following:

- a. Financial Stability
- b. Prudential Regulation
- c. Conduct fairness &
- d. Competition and development⁴



4.0 Regulatory Framework of Fintech

The future of Fintech has the potential to be centralized, decentralized or both, as seen below:

4.1. Future regulations for Centralized Finance:

Centralised finance can be defined as the traditional banking and financial system that is controlled by a single authority, which is often a government through its central bank. The new age of the internet has created an avenue through which centralized or government authorities⁵ can handle and authorize cryptocurrency transactions, Central Bank Digital Currency (CBDC). There are two types of CBDC:

- a) Retail CBDC
- b) The wholesale CBDC

A retail CBDC is available to the general public and can be used for payment for goods and services. A wholesale CBDC on the other hand can only be used for transactions by an authorised institution. Banks can use wholesale CBDC for interbank settlement, the Central Bank of Nigeria to handle deposits from other banks, and to facilitate cross-border transactions.

⁴ https://law.unimelb.edu.au/_data/assets/pdf_file/0011/1978256/D-Arner-FinTech-Evolution-Melbourne-June-2016.pdf
accessed 12:00pm 4 October 2022

⁵ <https://www.pcmag.com/encyclopedia/term/centralized-finance> accessed 3:00pm 4 October 2022

CBDC are built on Centralised ledger controlled by government. A centralised ledger is a digital method of record or bookkeeping used by an organization or authority to track activities and store data.

As the internet continues to evolve and disrupt traditional systems, the CBDC may become a permanent feature of the economy. According to a 2022 PWC CBDC Global Index, titled “the race to digital money is on”, over 80% of the world’s central banks are considering launching a CBDC or might have done so.⁶

Several countries including the United Kingdom (UK), the United States of America (USA) and Thailand have launched pilot programmes and research towards the institution of a central bank digital currency (CBDC). In 2020 China piloted the issuance of CBDC by issuing digital yuan and as of March 2022, pilot programs are running in Beijing, Shanghai and ten (10) other cities in China. The Bahamas also issued its CBDC, the Sand Dollar in October 2020. The Sand Dollar is a retail CBDC and has the same value as the Bahamian dollar and can be converted using a prepaid master card that allows users to pay for goods and services. Nigeria through the Central Bank of Nigeria in October 2021 became the first African State to issue CBDC, the eNaira. Contrary to speculations, the eNaira is a retail CBDC and is available to anyone who has the eNaira wallet app.

The fact that CBDC has government backing and regulation provides CBDC with an advantage over unregulated digital currencies like Bitcoin, Ethereum, etc. as users have more confidence in the CBDC than these unregulated digital currencies. When on the 4th of June 2021 Elon Musk posted a heartbreak, emoji accompanied by the hashtag bitcoin on Twitter, subsequently, the price of bitcoin fell by 4%⁷, the world witnessed how the value of cryptocurrency can be controlled arbitrarily by private individuals who own the bulk of these currencies. Furthermore, the unregulated digital currency market has been in downtime since the last quarter of 2021, if this continues it may lead to the shift from using them as currency to securities (digital stock or shares). If this occurs, CBDC will gain dominance as a means of transactions and with it will arise the need for more thorough regulation.

Future regulations around centralised finance should centre around strengthening its position and solving the issues of unregulated digital currency which include:

I.Strengthening Cyber-Security Against Hacks

If backed by a strong centralized ledger the incidence of hacking will be minimal. Each currency will be distinct and uniquely identifiable thereby solving the issue of currency counterfeiting and fraud.

ii.Strengthening the System to Track Transactions

CBDC if properly regulated and built is expected to operate on a centralized ledger or DLT which will help track all transactions made. The ability to trace transactions invariably leads to the effective combat of money laundering and terrorism funding. The country will also be able to track the correct amount of tax payable for each transaction.

iii.Solving the Issue of Data Loss

As technology for digital currencies is intentionally built to prevent hacks, most centralised ledgers currently make it impossible to recover accounts when certain information like passwords or usernames are lost. Therefore, in some situations where a user forgets their password or keywords, said user may be denied access to their wallet and all their money. To combat this, most DLT transaction platforms and wallets are building strong identity systems that give you a chance to prove your identity when access information is lost or forgotten. The future regulations for CBDC should widen their scope to cover these types of occurrences.



⁶ <https://www.premiumtimesng.com/news/top-news/522815-nigerias-enaira-leads-in-pwcs-global-digital-currency-index.html> accessed 12:00pm 6 October 2022

⁷ <https://www.vox.com/recode/2021/5/18/22441831/elon-musk-bitcoin-dogecoin-crypto-prices-tesla> accessed 1:00 pm 6 October 2022

iv. Balancing the Need to Protect the Identity of Individuals and the Need to Regulate Transactions.

Those who argue against CBDC have raised the issue that CBDC does not protect the privacy of users, this belief stems from the assumption that the technology enabling CBDC must either be a distributed ledger technology (DLT) using blockchain or a centralized ledger account at the central bank. Technologies developed on ledgers connect the user to the asset being held. To access the ledger, a person must authenticate their identity. As a result, if the Central Bank controls the centralized ledger accounts or the DLT solution, they must be privy to who is storing or transacting in the CBDC, which compromises privacy. This argument is biased since any government can still do the above even in traditional banking when doing its duty of protecting life and property. However, such powers are mostly exercised with court orders. Therefore, CBDC regulation should provide for the need for court orders and protective compliance procedures before the private information of users can be accessed.

The regulatory regimes of Fintech vary from one jurisdiction to the other. It is of utmost importance that Fintech regulations are accommodating toward innovation, because as indicated earlier, stringent and rigid regulations will be gravely unfavourable in the long-run.

4.2. Specific Fintech Regulations:

Some jurisdictions pioneered the adoption of industry specific legislation, and they include Hong Kong SAR and Singapore. Hong Kong SAR through Hong Kong Monetary Authority (HKMA) published a revised 'Guideline on authorization of virtual banks', which provided the regulatory framework capable of authorising virtual banks that intend to do business in Hong Kong. As for Singapore, the Monetary Authority of Singapore (MAS) initialized a new digital banking framework which comprises of two licences, namely: (i) the digital full bank (DFB) licence, and (ii) the digital wholesale bank (DWB) licence . Between both jurisdictions, there are varied prerequisites that come with each licence that define business operations, risk management controls, consumer protection, insurance deposit schemes among others.

4.3. The Emergence of RegTech:

According to Blackett Report (UK) the government has identified the regulatory challenge as an opportunity to develop commensurate technological solutions toward the assessment and efficient regulation of the Fintech sector. Forward momentum in this area, would lead to data driven compliance, harmonized standards from the national to the regional and global levels, real time transaction analysis, online registration and even regulatory model simulation of policies ahead of the legislative process⁹.



⁸ <https://www.bis.org/fsi/publ/insights23.pdf> accessed 4:00pm 6 October 2022

⁹ <https://assets.publishing.service.gov.uk/government/uploads/system/up> accessed 4:45pm 6 October 2022

5.0. Conclusion

The future of Fintech and compliance is extremely broad due to the many options the technologies provide. Notwithstanding, all countries with Fintech industries need to consider the many pros and cons of compliance in accordance to what best suits the business needs of the industry within their jurisdiction. In as much as there are some basic best practices proffered by a number of management consulting firms¹⁰, a pragmatic approach is encouraged to be adopted at every instance regulations are formulated. Within the given parameters stated in earlier paragraphs, and provided that the over-arching goal is economic development and growth to the economy, there will always be innovative ideas that enable the mandates of either side seamlessly.

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¹⁰ <https://assets.kpmg/content/dam/kpmg/xx/pdf/2019/03/regulation-and-supervision-of-fintech.pdf> and leading International Management consulting firm McKinsey accessed 5:00pm 7 October 2022