Account and Financial Management Journal e-ISSN: 2456-3374
Volume 7 Issue 05 May 2022, (Page No.-2719-2731)
DOI: 10.47191/afmj/v7i5.01, Impact Factor: 6.839
© 2022, AFMJ

Fintech Credit in Kenya: The Case for Strategic Regulation

Dr. Arnold Wanjala Namusonge
Visiting Lecturer, University of Eldoret, School of Business and Management Science, Eldoret, Kenya.

ABSTRACT: The study sought to present the case for strategic regulation in the Fintech Sector, specifically in digital credit, with reference to Kenya. This was based on the concern that the proposed regulation on Fintech Credit by the Kenyan Parliament and the Government of Kenya do not factor in the sustainability aspects of Fintech Credit businesses. The study is anchored on the Public Interest Theory, the Private Interest Theory, and the Economic Theory of Regulation. The study adopted desk research, which depended on the review and examination of primary data sources such as legislation, government policy documents, acts of parliament and reports. The study sought to achieve its objectives by evaluating the current laws and regulations affecting mobile lending in Kenya. It then relied on comparison with two jurisdictions, specifically India and USA, where one has an existing mobile lending regulatory framework, and the other has a general regulatory framework respectively. It was established that the proposed regulations have a bias towards consumer protection and do not focus on business sustainability. The study therefore concluded that one single regulatory framework or laws will be insufficient for a sector where the laws in place will always be one step behind innovation in Fintech credit, and observed the need for a strategic approach to the regulation of Fintech credit in Kenya. It was recommended that, Fintech credit regulation in Kenya ought to incorporate a degree of flexibility. This flexibility is envisaged by Regtech, which takes care of new product-specific regulation. Secondly, regulators in Kenya should engage in Fintech Credit promotion by creating regulatory sandboxes. Sandboxes allow innovators to test their concepts in a deregulated environment that the rest of the market does not enjoy.

KEYWORDS: Fintech, Fintech Credit, Regulation, Strategic Regulation and Regtech

I. INTRODUCTION

Financial technology or Fintech has revolutionized all aspects of life over the past decade. It has been disruptive, but it has also changed the way people bank, invest, and shop over the past years. Gupta and Tham (2019) define Fintech as a term used to describe any technology to deliver financial services or products through electronic solutions. It may include software, mobile applications, and the internet. The main objective of Fintech is to transform the way consumers and businesses access and use their finances, making the process more efficient.

Some of the most notable impacts of Fintech are the ease, simplicity, scope, and speed of doing business and personal transactions. Fintech firms can disrupt the existing financial system environments and eventually replace them. They are also capable of creating new products and services that have the potential to challenge traditional business models (Gupta & Tham, 2019). Therefore, firms must adapt to financial technology in an age where free online financial services are welcomed to keep up with emerging trends shaping the future.

The lending sector has been greatly proliferated by Fintech, where several start-ups have come up with innovative solutions for businesses and consumers. These firms have used the latest technologies to improve the lending process in speed, transparency, ease of access, and personalized services. The Financial Services sector is one of the most regulated industries, with governments constantly coming up with regulatory frameworks to govern business conduct. However, with increased rates of innovation and complexity in technology, challenges and concerns have arisen over time for consumers and lenders. Governments worldwide have been left to play catch-up on how best to use opportunities while managing the risk in fintech lending, making it difficult for stakeholders to provide a consistent regulatory environment.

A. Background

The Fintech lending space in Kenya has grown exponentially within the last nine years when the first digital credit solution was launched in 2012. It has greatly impacted financial inclusion in Kenya, with 88% of the adult population having access to a mobile banking account (FinAccess, 2019). The ease of access to these loans has made it possible for more than 6 million Kenyans to access funds for everyday use in domestic consumption, non-routine needs such as emergencies, and in MSE's as working capital (FSD, 2019). It has made Fintech lending a leading source of credit in Kenya.

M-Shwari leads the digital credit market in Kenya, having benefitted from first-mover advantages with twice as many

unique users as its closest competitor, KCB M-Pesa. Both services are offered through Kenya's largest telecommunication provider, Safaricom, through its mobile banking platform, M-Pesa (Totolo, 2018). Over the last 4 years, technological advancements and non-existent regulation have enabled an entry of Fintech firms into the market, where Kenyan banks have launched their digital credit solutions as well as an entry of unregulated firms, both of which have offered customers a wide choice of borrowing solutions (Totolo, 2018). FSD (2019) puts the growth of usage of non-regulated digital credit from 0.6% in 2016 to 8.3% in 2019.

The impact of Fintech credit in Kenya has been significant as it has provided financial services in otherwise unbanked populations, complemented other forms of lending, and at the same time raised significant regulatory and competition policy issues. It has also unpacked financial services, giving fundamental conceptual insights into the nature of these services (Klein & Mayer, 2011). The market has been viewed as easy to enter, and exit, with a survey done by FSD Kenya (2019) showing the number of lending apps stood at 110 as of September 2010. As of April 2019, 65 apps had been removed, and 47 new apps were added.

Muli (2020) argues that the lack of regulation in the Fintech credit space has created some concerns and inadequacies to consumers, such as debt stress, excessive lending, consumer exploitation through exorbitant interest rates, and data privacy infringement. Other regulatory concerns include debt shaming and a lack of a clear dispute resolution mechanism when aggrieved consumers want to seek redress. A major concern has been the emergence of unscrupulous lenders, who have used the loophole in regulation to mimic mainstream and established lenders, demand for payments of a registration fee, and offer savings services when they are not deposit-taking institutions (FSD Kenya, 2019).

While calls for regulation have been quite noble towards protecting the rights and well-being of consumers, some concerns affect the Fintech credit players. The high risk involved in giving loans to borrowers that are not known save for the information obtained from algorithms and phone data is a growing cause for concern. With the KYC process shortened and, in most cases, bypassed, digital lenders have had to grapple with high levels of delinquency and potential risks of over-indebtedness and multiple borrowing (Kaffenberger et al., 2018). Gubbins and Totolo (2019) state that 1 in 2 digital borrowers in Kenya reported having paid a loan late. 12.5% reported having defaulted on a loan. This is in sharp contrast to the default rate in commercial banks, which stands at 2.2%. This, therefore, puts into perspective the sustainability challenges that Fintech lenders face.

B. Problem Statement

For most sectors of the economy, regulatory policy increasingly shapes the structure and conduct of businesses. It plays major shifts in economic value, making it the single biggest uncertainty affecting capital expenditure decisions, corporate image, and risk management (Beardsley et al., 2005). In many aspects, regulation represents an explicit formal contract between business and society. Even in the absence of rules, laws, and regulations, informal agreements may call companies to meet certain social responsibilities (Beardsley et al., 2005).

The wave of technological changes has undoubtedly spurned Fintech lending innovation, which has created tangible benefits to the credit market space. On the flip side, several concerns to the consumer have arisen on issues such as high-interest rates, consumer protection rights violation, data privacy, and predatory lending. Policymakers and governments worldwide have argued that there is a need to develop legislation to protect consumers. This argument is based on the premise that a lack of regulatory policy creates a platform for exploiting customers as the company's activities go unchecked. The speed of innovation in this sector has been so high that governments worldwide have always been a step behind regulation.

Studies have been done to support regulation based on consumer protection, with the Kenyan parliament approving the Central Bank of Kenya (Amendment) Bill 2021, which gives the Central Bank of Kenya powers to price interest rates for digital loans. The proposed regulations curb high-interest rates and prevent Fintech lenders from debt-shaming consumers who default on their payments. However, Fintech lenders have also been affected by high delinquency and default rates, which threaten the sustainability of their businesses, as they cannot collect revenue from the consumers of credit. Some Fintech entrepreneurs have argued that regulation stifles innovation and that Fintech should be allowed to develop freely. The largest FinTech credit and BigTech credit markets have been China, which has shown signs of contraction due to certain market and regulatory developments. While it is still unclear whether the default rates in Fintech lending are borrower or lender driven, the challenge lies in how best regulation can harness its opportunities while adequately managing risks.

There is, therefore, a need for regulation of Fintech to create a balance that promotes and fosters genuinely innovative solutions while protecting investors and the public. The problem this study intends to address is the need for such a balance that ensures digital services are competitive and efficient and, at the same time, ensures consumer protection and reliability of Fintech lending services through strategic regulation.

C. Statement of the Objective

This study aims to present the case for strategic regulation in the Fintech sector, specifically in digital credit. The objectives of the study are;

1. To examine the proposed regulatory framework for the Fintech lending sector in

Kenya.

2. To explore whether proposed regulations contribute to sustainable business models in the Fintech lending sector.

3. To issue proposals for regulation that will benefit the consumers and investors in Fintech lending.

D. *Research Questions*

The following research questions guided this study;

1. What are the proposed regulations for the Fintech lending sector in Kenya?
2. Are the proposed regulations beneficial to Fintech lending investors in Kenya?
3. How should Fintech lending be regulated?

E. *Hypothesis*

Ho: Proposed regulation in Fintech Lending in Kenya has no consideration for the lenders.

II. LITERATURE REVIEW

A. *Strategic Regulation*

Regulation is defined as the intentional intervention in the activities of a target population (Koop and Lodge, 2015). The intervention this definition refers to can be direct and indirect; the activities can be economic or non-economic, the regulator may be a public- or private-sector actor and the regulatee may equally be a public- or private-sector actor. Alexander (2019) defines regulation as rulemaking usually in the context of industry and is in most cases a function of the government.

Strategic regulation can be a science or fact-driven assessment of product development options, key considerations, and likely regulatory outcomes (Walker & Soulis, 2020). It should encompass key milestones and decision points; consider regulatory objectives, hurdles, the regulatory landscape, and precedents, and characterize risks to potential success in delivering a specific regulatory outcome. This regulatory outcome, in turn, will have broader consideration because it will link to the potential for customer access, commercial acceptability and uptake, and, therefore, likely business outcomes (Walker & Soulis, 2020).

Therefore, from a Fintech credit perspective, strategic regulation is defined as regulation that strikes a balance between promoting and fostering genuinely innovative solutions and business sustainability while protecting investors and the public.

Important concepts related to regulation include deregulation, non-regulation, and self-regulation. Deregulation usually addresses the rolling back of state instituted measures intended to control the activities of an industry, while non-regulation refers to a situation where no form of regulation exists (Muli, 2020).

Self-regulation refers to the ability of an industry to govern itself without external influence. On self-regulation, Fintech lenders in Kenya came together to form the Digital Lenders Association of Kenya (DLAK) partly in response to the threat of statutory regulation that would have introduced external controls to their industry.

Rahim (2013), while appreciating that self-regulation is not a clear concept, discusses four basic forms of self–regulation, which are mandated self-regulation (government defines the norms and framework for the development of regulations), sanctioned self-regulation (industry made, government-approved), coerced self-regulation (made in response to the threat of statutory regulation) and voluntary self-regulation (no state involvement).

Lodge and Wegrich (2012) add to the discussion of concepts in regulation by identifying the twin issues of regulatory failure, where existing regulation fails to achieve the intended objectives, and regulatory burden, which refers to the costs associated with compliance usually incurred by the regulated entities.

While there is a general belief that markets work well in many instances, there is also an understanding that market failures and that markets left to themselves can lead to suboptimal or bad outcomes (Loesch, 2018). In many cases, market failures can be traced back to the fact that one party is better informed than the other one—not because they have failed to do their homework, but because structurally, one party to the transaction finds it impossible or at least very expensive to acquire information that the other side has.

B. *Fintech Credit*

The term "FinTech" can be traced to the early 1990s and refers to a rapidly developing evolutionary process across financial services (Barberis et al., 2019). The evolution of FinTech has unfolded in three stages, which the authors characterized as Fintech 1.0, 2.0, and 3.0. The first stage (Fintech 1.0) was between 1866-1967, where finance and technology had a long history of mutual reinforcement, from early calculation technologies like the abacus to the emergence of double-entry accounting in the late Middle Ages and Renaissance, which was essential to the industrial revolution. In the late 19th century, technologies such as the telegraph helped forge cross-border financial connections (Sandage, 2015).

The second stage of evolution, 1967-2008, saw rapid advances in electronic payment systems. The need to link domestic payments systems was envisioned, which followed the establishment of the Society of Worldwide Interbank Financial Telecommunications (SWIFT) in 1973. This was followed shortly after by the collapse of banks and stock market crashes globally which served as catalysts for the first major regulatory initiatives (Bookstaber, 2008). However, the emergence of the internet in the 1990s provided the foundational change that made FinTech 3.0 possible.

FinTech 3.0 (2008-Present), the third evolutionary stage, saw a confluence of factors emerge, which provided an impetus for developed countries. The brand image of banks was severely shaken. A 2015 survey reported that Americans trusted technology firms far more than banks (Barberis et al., 2019). The Global Financial Crisis (GFC) damaged bank profitability, and the regulation that ensued drove compliance

costs to record highs. The timing of the GFC also played a critical role in FinTech’s development. This phase has required high levels of smartphone penetration, and sophisticated application programming interfaces (APIs), which would not have existed had the GFC occurred five years earlier.

The key differentiating factors of FinTech 3.0 have been the rapid rate of development and the changing identity of those who are providing financial services. Startups and technology firms have challenged established financial institutions by offering specific, niche services to consumers, businesses, and incumbent financial institutions. FinTech 3.0 has also been characterized by the rapid growth of companies from ‘too-small-to-care’ to ‘too-large-to-ignore and finally ‘too-big-to-fail’ (Barberis et al., 2019).

This landscape raises the important question for regulators of precisely when they should begin to focus on certain industry participants. This highlights why the evolution of FinTech requires similar developments in RegTech (Barberis et al., 2019). A flexible, multi-level approach is necessary to impose regulatory requirements with differing intensities based on the size and risk of firms.

Today, Fintech impacts every area of the financial system globally, with the most dramatic impact perhaps in China, where technology firms such as Alibaba have transformed finance. China’s inefficient banking infrastructure and high technology penetration make it a fertile ground for FinTech. Emerging markets, particularly in Asia and Africa, have begun to experience what Barberis et al. (2019) characterize as Fintech 3.5 -an era of strong FinTech development supported by deliberate government policy choices in pursuit of economic development.

FinTech development in Africa has been led by telecommunications companies on the back of the rapid uptake of mobile telephones and the underdeveloped nature of banking services. Mobile money-the provision of basic transaction and savings services through e-money recorded on a mobile phone- has been particularly successful in Kenya and Tanzania ("Tanzania's Mobile Money Revolution," 2015). Mobile money has significantly spurred economic development by enabling customers to securely save and transfer funds, pay bills and receive government payments. M-Pesa remains Africa’s best-known success story ("Safaricom, M-Pesa Timeline," 2016).

The Financial Services Board (FSB) (2017) defines FinTech credit as all credit activity facilitated by electronic platforms whereby borrowers are matched directly with lenders. FSB has loosely explained this definition to include marketplace lending, i.e., lending financed mostly from wholesale sources and non-loan obligations, such as invoice trading. FSB has also classified 'peer-to-peer lending' and 'loan-based crowdfunding’ as the main components of FinTech credit. There is no universally acceptable comprehensive definition of ‘FinTech credit’ or ‘digital lending,' as new models and approaches are still evolving. One generally accepted feature of digital lending is 'access of credit intermediation services majorly over a digital channel or assisted by digital channel (RBI, 2017).

III. THEORETICAL FRAMEWORK

This work is anchored on the Public Interest Theory of Pigou (1932), the Private Interest or Theory of Economic regulation by Stigler (1971), and the Economic Theory of Regulation by Posner (1974).

The Public Interest Theory of regulation emerged from the works of Pigou (1932) to cater to circumstances where authorities need to intervene in markets to ensure that the common good of the public is defended. The author believed that the regulations are prepared in the public interest when the public demands them to correct inefficient practices. Regulations are understood to do good to the whole society rather than any individual's interest. The regulatory body is to serve the interest of society as a whole rather than making laws in favour of the regulators. Pigou (1932) argued that when private enterprises are left to operate unfettered even with competition, the result is always a skewed distribution of resources favourable or unfavourable to what he calls the national dividend. The remedies he proposes are taxes, price regulation, or subsidies to balance out the benefits related to the public interest and the firms' interest. Usually, businesses have asymmetrical power in the marketplace when offering a unique product or occupying a monopolistic position. In this case, the business can take advantage of the public since the public has no alternative.

The Public Interest theory assumes that the economic markets are very fragile, and they have a tendency to operate inefficiently and in favor of individual concerns while ignoring the importance of society as a whole. Therefore to direct and monitor the economic markets, government intervention is required. Pigou (1932) said that the government regulates the banks to make them work in the social interest. The banks can serve the social interest when resources are allocated efficiently and in social interest. Therefore, this position can be used to advocate for regulation in the fintech lending arena. It also assumes the existence of full information, perfect enforcement, and benevolent regulators.

Stigler (1971) contradicts the public interest theory and states that regulations are prepared when the public demands the efficient allocation of resources. He said regulations are not socially efficient and used by private players to prohibit the entry of competitors into the market. Stigler's central proposition was that ‘as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit.' The benefits of regulation for the industry are obvious. The government can grant exemption from antitrust legislation, grant subsidies, or ban the entry of competitors directly so that the level of prices rises. The government can maintain minimum prices and restrict entry more easily than a cartel.

Posner’s (1974) Theory utilized both the Public Interest and public choice theories. He assumes that regulation will come to serve the industry's interests over time. Legislators subject industry to regulation by an agency if abuse of a dominant position is detected. Over time, other political priorities arrive on the agenda, and legislators' monitoring of the regulatory agency is relaxed. The agency will tend to avoid conflicts with the regulated company because it is dependent on this company for its information. It often also does not have unlimited resources, making it aware of litigation's costly effects on its decisions. Furthermore, there are career opportunities for the regulators in the regulated companies. This leads in time to the regulatory agency coming to represent the interests of the branch involved.

Posner (1974) observed that regulation strongly benefited certain consumer groups in many cases. For instance, uniform prices were prescribed for rail transport, the supply of gas, water, and electricity, telecommunications traffic, and mail distribution. However, the costs and risks of supplying these services differ considerably, for example, between residential and rural areas. Rural customers are more costly to serve network services than urban consumers. This criticism, therefore, implies a move towards support for deregulation or non-regulation in the Fintech lending space.

IV. EMPIRICAL REVIEW

Muli (2020) examined and provided a case for regulation in digital lending in Kenya. The study sought to critically review the challenge of digital lending from a legal perspective to propose a regulatory framework. The study relied on a variety of sources, including primary sources such as acts of parliament from various jurisdictions and case law. It also relied on secondary sources such as journals, online sources, and legal literature discussing the issues. The main issues explored were the existing legal framework in Kenya under which digital lenders operate. Some consideration was also given to digital lenders' reported practices, especially regarding unfair trade practices. The key findings included the following; First, there is no unified law or single regulator with a clear mandate to regulate the digital lending sector in Kenya, but there are several relevant regulators and laws that provide partial regulation of digital lending in the country. Secondly, it was determined that due to the gaps in regulation, digital lenders were infringing the rights of the mobile loan customers in Kenya, who are mostly low-income earners and with low levels of financial literacy. The main recommendations offered from the study were the enactment of an enabling law to establish a regulator for the sector or the amendment of existing laws to accommodate the issues arising from digital lending. Regulatory sandboxes were encouraged to reduce the negative impact of regulation on innovation.

Didenko (2018) investigates Fintech regulation in Africa and identifies key lessons learned. This article focuses on the regulatory frameworks of two leading jurisdictions in terms of Fintech development in Sub-Saharan Africa: Kenya and South Africa. Didenko argues that since the developments in the region cannot be analysed in isolation from the global trends in Fintech regulation, this article approaches the matter systematically. It starts by clarifying the existing terminology and preparing a comprehensive matrix of various challenges in Fintech regulation: in doing so, it does not take the interests of innovation promotion for granted and adopted a balanced approach, weighing various—often mutually exclusive—considerations against each other. This article also argues that rule of law challenges, rather than technical problems, remain the key obstacles to adequate Fintech regulation. It then discusses the specific regulatory issues in two African jurisdictions that are current regional leaders in the Fintech space—Kenya and South Africa. Finally, this article synthesizes recommendations for improving the Fintech regulatory systems in the two countries in light of the earlier matrix of regulatory challenges. Many findings in this article (such as the need for an improved methodology of social and economic impact analyses and various policy considerations for structuring the Fintech regulation) are relevant outside the African context and have universal application.

Rezaee (2011) analyses the fundamentals of financial services that include regulation and governance. The author notes that the past few decades have witnessed significant changes in financial services firms' structure, characteristics, and types of products and services. The most significant changes were in four areas, namely consolidation, convergence, regulation, and competition. Further, the current financial services being offered by banks, insurance companies, and mutual funds, coupled with a new trend toward combinations between banks and financial services firms, have necessitated the concept of mergers and acquisitions. She aptly explains how these have affected the development of the financial services industry. Due to these trends, she asserts, there is a need for proper regulatory and corporate governance measures for the financial services industry.

The author, therefore, proposes a new regulatory framework that would define boundaries, offer guidance and requirements within which banks and other financial services firms can effectively operate in generating sustainable performance. The proposals by the author will assist in coming up with proper recommendations on the effective governance practices of a sound regulatory framework.

Tatom (2011) discusses the effects of the financial crisis that hit the world economies and the failure of some large financial institutions. He states that because of these effects, many financial stakeholders questioned the legitimacy of their existing financial structure and its regulation and whether there was a need for reform. Tatom provides an overview of recent and prospective financial legislation and its effects in the United States and analyses empirical evidence of the global effects of the financial crisis on banks and insurance companies. He also looks at the issues that

continue to affect financial regulation and further establishes how the same issues are being dealt with through legislation. This book is essential to the current study because it shows that despite legislation and regulation being made to capture the emerging trends, the same is not sufficient, as challenges still crop up.

V. RESEARCH METHODOLOGY

The study adopted desk research, which depends on the review and examination of primary and secondary data sources. Library materials are the main source of information. The primary sources used include legislation, government policy documents, and reports. Relevant secondary literature has also been reviewed, and online sources are used where necessary. The study shall achieve its objectives by evaluating the current laws and regulations affecting mobile lending in Kenya. There will be a review of academic journal articles and reports concerning the issue of Fintech lending.

There will also be reliance on comparison with two jurisdictions, specifically India and USA, where one has a have existing mobile lending regulatory framework, and the other has a general regulatory framework to highlight best practices. India was chosen because it has a Fintech industry with numerous players, which is highly regulated and has gained independence earlier than Kenya. The USA was chosen due to the many prominent players that have emerged out of Silicon Valley, the technological hub of innovation globally, offering an array of financial services, such as payments, online lending, Robo-advice, insurance, and Bitcoin.

VI. RESEARCH DISCUSSIONS

A. *Existing Financial Sector Regulatory Framework in Kenya*

The existing regulatory framework for the financial sector in Kenya consists of several independent regulators, each charged with supervising their particular sub-sectors (Mutuku, 2008). These sectors include banking, insurance, securities, and pensions. Most sectors through the years have been regulated by the government, although at different levels, both directly and indirectly (Mutuku, 2008). Some sub-sectors within the sectors such as microfinance, building societies, and forex bureaus have been self-regulating. However, with the penetration and increase of financial services, there has been continued demand for efficient regulation (Tumwine-Mukubwa, 2009). This has created a mix of both self-regulation and government regulation. The different sub-sectors have experienced different paces of development and regulation.

The current regulatory structure is characterized by regulatory gaps, regulatory overlaps, a multiplicity of regulators, inconsistency of regulations, and differences in operational standards. For example, some regulators have at least partial exemption from the State Corporations Act while others do not, some have tax exemption, and others do not. Some regulators have powers to issue regulations, while in other cases, the power is retained by the Minister for Finance (Mutuku, 2008).

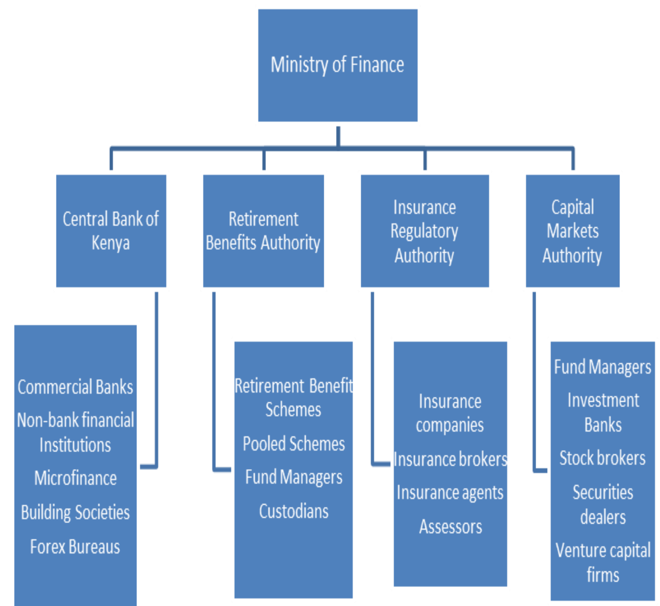

Figure I. Structure of Financial Sector Regulation in Kenya

Fintech lending in Kenya is dominated by short-term, high-interest-rate loans made directly to consumers. In the most common scenario, a bank-telco partnership, the bank originates the loan, but customer interactions, including loan disbursal and repayment, are done via the mobile money platform (Francis et al., 2017). This model includes the partnership between Safaricom M-Pesa and the Commercial Bank of Africa (CBA) to issue the MShwari product.

The second scenario is where companies directly originate loans to consumers but require reliance on customers to install applications on their smartphones to issue credit (Francis et al., 2017). The borrowers are required to install an app on their mobile phones that collect data on the borrower's mobile money usage and social media usage. Through reliance on this data, the lenders assess and make decisions on whether the borrowers are creditworthy (Hurley & Adebayo, 2017). Such lenders in Kenya include Tala, Okash, and Branch loan facilities.

The third business model is that of a bank offering digital services, where the banks develop their digital infrastructure and therefore do not partner with mobile network operators. An example is Equity Bank, through the Equitel product, whose telecommunication infrastructure is from Airtel Kenya.

The fourth business model in Kenya is Peer- to- Peer lending (P2P). This model is a form of direct lending of money to customers without the participation of financial institutions. It is not as prominent as in other countries like India. P2P lenders provide a digital platform that links the customers to the lenders, and they do not normally lend their own money as their role is limited to facilitating the lending

process. Such companies include UbaPesa and Pezesha Loans (Muli, 2020).

B. *Proposed Fintech Credit Regulatory Framework in Kenya*

The Fintech lending sector in Kenya has occupied a unique position as far as its regulatory framework is concerned. The sector is not governed by any specific Act of Parliament or law (Muli, 2020). It operates under Kenya's existing financial services regulatory framework, designed for more traditional products.

Following several concerns from the public on infringement of consumer data protection, high-interest rates, predatory lending, and debt shaming, The Central Bank of Kenya (Amendment) Bill, 2021 (National Assembly Bill No. 10) has been proposed by the National Assembly of Kenya in August 2021 to become law. This amendment bill aims to introduce direct regulation of the Fintech lending financial sector in Kenya, bringing it under the Central Bank of Kenya (CBK). This proposed bill effectively makes the Central Bank of Kenya a super-regulator for digital lenders.

The Central Bank of Kenya Amendment Bill (2021) has proposed amendments to 7 clauses that seek to change the Central Bank of Kenya Act to provide for licensing digital credit service providers who are not regulated under any law. Some of the noteworthy clauses of the bill include;

Clause 3- proposes to give the CBK powers to license and supervise digital credit providers that are not regulated by any written law.

Clause 4 of the Bill provides for the powers of the CBK to make regulations that include but are not limited to licensing of digital credit providers, supervision, suspension, and revocation of licenses.

Clause 5 of the Bill provides that every digital credit provider shall furnish the CBK with any information or data required to discharge its functions under the CBK Act properly.

Clause 6 of the Bill provides for making regulations to operationalize the Act, particularly on matters relating to the registration requirements, management requirements, credit information sharing, and reporting requirements for digital credit providers.

C. *Self- Regulation of Digital Lenders in Kenya*

Players in the digital lending space have recently started examining ways of self-regulation to try and address the regulatory challenges and the consumer public outcry that they are currently experiencing. Self-regulation is not a unique concept in the Kenyan legal system. For instance, accountants under ICPAK and the International Accounting Standards Board (Watima, 2019). The legal profession also carries out self-regulation through the Law Society of Kenya, while the Banking sector achieves the same goals through the Kenya Bankers Association. However, it may be argued that these bodies are successful largely because they have an anchor law to regulate their sector. In addition, there is a concern that fintech firms are very sophisticated players while borrowers generally lack the sophistication needed to understand the full import of their borrowing hence the need for regulatory protection.

Digital lenders have recently begun the journey towards self-regulation through the Digital Lenders Association of Kenya (DLAK). This move to self-regulate may have been partly motivated by the realization that the government was actively pushing for regulation of the digital lending sector. DLAK states on its websites that it aims to "set ethical and professional standards in the industry, to collaborate with policymakers and other stakeholders in addressing industry issues, contribute to knowledge and learning and to drive the overall growth of the digital lending and fintech sector"(Muli, 2020)

DLAK has developed a code of conduct for its members and is available through its website. The very development of the DLAK code is a laudable step since it creates a semblance of regulation and provides an option for the regulation of digital lenders in the absence of a legally instituted regulator of the sector. DLAK, as a sector representative, is a good indication that the players in the sector are aware of the need to formalize the regulation of the sector. The efforts included in the code to offer some types of remedies for bad business practices by its registered members are also welcome since these are among the chief regulation goals. The remedies include mediation. In these ways, DLAK Code is a welcome addition to the efforts towards the formalization of regulation of digital lenders (Muli, 2020).

One of the key problems associated with the DLAK code of ethics is that it is not mandatory for all players in the digital lending business to follow and subscribe to it (Muli, 2020). In fact, in the statement of objectives of the code, DLAK states that its members "are entitled to voluntary application of this code" ("DLAK Code of Conduct," n.d.). This gives the members the power to choose whether to apply the code to their business or not. While the practicality of this approach can be appreciated seeing that DLAK is not a statutory body, it does not serve to generate the confidence needed for the complete protection of consumers from predatory lending practices and other malpractices (Muli, 2020).

D. *Inferences on Regulatory framework in Kenya and Proposed Changes*

The proposed regulations will provide a substantive law to guide the digital lending sector based on the review above. Therefore, the regulations will make the CBK an overarching regulator, which will merge laws from three regulators, namely the Central Bank of Kenya, the Communication Authority of Kenya, and the Office of the Data Protection Commissioner. This will provide recourse for aggrieved customers and a guideline for registering and cancelling licenses to rogue operators who violate consumer rights.

The proposed Central Bank Amendment Act 2021 intends to ensure that the regulations do not stifle innovation in the

Fintech lending space. However, it remains silent on interest rate caps and issues that will help it address consumer delinquency and default rates, which provide a substantial financial and sustainability risk to digital lenders. Self-regulation of industry players as a step towards providing a standard code of conduct will provide supplementary regulation. It is worth noting that government regulation will always step behind as innovation evolves every day. Therefore, the proposed regulations will fill one aspect of the regulatory gap concerning consumer protection, but they will not address the gap in investor protection. This implies the existence of a regulatory gap in terms of investor protection and sustainability of the players in the industry.

E. *Digital Lending Regulations in India and USA*

This section analyses the digital lending regulations in two jurisdictions as the basis for comparisons with the Kenyan situation to draw lessons that can inform the case for strategic regulation in Kenya. The chapter looks at digital lending regulations in India to learn from its highly developed fintech sector, which is one of the fastest-growing in the world reported to have over 1000 digital lenders with funding of more than USD 2.4 billion (Deshmukh, 2021). Most lenders have been formed within the last 5 years, and the sector is still evolving. The section also looks at the digital lending sector regulations in the USA primarily for its contextual value since the USA is one of the largest markets for fintech credit. Being a country grounded on intense technological advancements, many prominent players in Fintech have emerged out of Silicon Valley (Sahni, 2021). The discussions on the regulations in both India and USA are based on reviewing their legal documents such as laws and regulations.

I. ***Digital Lending Regulations- India:*** The Indian Fintech sector is governed by a regulator whose mandate includes the regulation of Fintech firms alongside the entire Indian Banking system. The Indian banking system, part of which is the digital lending sector, is governed by the Reserve Bank of India using the Banking regulation Act of 1987 (The Banking Regulation (Amendment) Act, 2017, 2017).

The Reserve Bank is given the power to manage the country's financial affairs in ways that are thematically similar to the role of the Central Bank of Kenya. It is noted that while the Central Bank of Kenya is constituted as an independent body free from political interference, the Reserve Bank of India operates under the central government's instructions (Muli, 2020).

The Reserve Bank of India Act states as follows; “The Central Government may from time to time give such directions to the Bank as it may, after consultation with the Governor of the Bank, consider necessary in the public interest” (The Banking Regulation (Amendment) Act, 2017, 2017).

This influence by the central government may benefit from ensuring the reserve bank works in greater harmony with other state departments in the implementation of the policies of the central government. However, it can also expose the bank to unwanted political influence or may water down its ability to make the best monetary policy decisions if the central government does not approve.

As a result of the above, India may have a strongly regulated financial services sector based on the power given to the Reserve Bank of India over other banks and then the power of the central government over the Reserve Bank of India. In this aspect, India is different from Kenya because its fintech industry came up in an environment that was more regulated than the Kenyan financial services sector, where regulations attempt to catch up with innovation (KPMG, 2019).

The second element of the fintech industry of importance to this study is the emergence of regulatory technology (regtech) as part of the Indian business ecosystem. Regtech can be explained as managing regulatory processes within the financial industry through technology. In India, regulatory technologies are coming into play, riding on the capabilities of technology in today's financial markets to give regulators data that would traditionally take longer to gather (Ministry of Finance, India, 2019). These regulatory technologies assist regulators in monitoring fast-moving events such as real-time transactions within the financial services sector. In the context of digital lending, technology can be deployed to monitor the activities of digital lenders in real-time. With the addition of data query capabilities, a regulator may tell when a company is involved in fraudulent or unethical lending activities simply based on the data collected by regulatory technologies in the same way that digital lenders use technology to calculate risk profiles of their borrowers. This is an efficient way of monitoring and ensuring compliance with existing laws by digital lenders (Muli, 2020).

A review of the specific regulations in the Indian fintech sector was carried out, and the main findings were as follows. The Peer Peer (P2P) lending platforms in India are the most common and are governed by a specific regulation issued by the Reserve banks of India. This regulation is titled “Master Directions - Non -Banking Financial Company – Peer to Peer Lending Platform (Reserve Bank) Directions, 2017”. The regulation has several specific regulations that are of interest to this study. First, Regulation 5 outlaws the operation of any peer-to-peer lending network without registration with the bank, and at the time of the implementation of the regulation, P2P firms in India already in operation were required to register with the Reserve Bank (Reserve Bank of India, 2017).

The second finding regarding market dynamics was that mobile lending apps in India use the same criteria as the mobile lending apps in Kenya to award loans. The criteria include a review of call records, volume of transactions, and use of mobile money to pay utility bills, among others, to determine whether to lend to a potential borrower. This means that India is dealing with the same data protection challenges that Kenya sought to address through the Data Protection Act.

The third important finding touches on loan recovery, where lenders are prohibited from harassing, badgering, and coercing borrowers to repay their loans, and a such, under regulation 12 (3), they are required to train their staff on these matters (Reserve Bank of India, 2017). Further, The Limitation Act (1963) (India) provides that one may recover their debt, but if the time between the days the debt was issued, and debt recovery is more than three years, then the debt is automatically written off by law. This law is important for mobile lenders in India since they have to factor in this period to their business processes when handling issues of default. In Kenya, there is no regulation on the writing-off of digital loans, and the loans in default normally continue to accrue excessive rates of interest.

Finally, the need to set up regulatory sandboxes in Kenya is underscored by their use in India. A regulatory sandbox is a setup that allows regulators to test regulations using real-time data from players in the industry without imposing the existing regulations in a binding manner (KPMG, 2019). Regulatory sandboxes can be viewed as regulatory simulations designed to test the effect of regulatory activity in the industry before legalizing the regulatory initiatives. Kenya can benefit from the institution of regulatory sandboxes for mobile lending to test how the market will react to various regulatory initiatives (Muli, 2020).

The key lessons Kenya can learn from India are as follows. First, India has a clear regulatory for mobile loan services. Kenya. India's foray into regtech is also an important lesson in implementing regulatory activity for app-based lending since it is a data-dependent operation and is easier to regulate with the input of data services. The dispute resolution mechanism used by the Indian Mobile lending regulator could be linked to self-regulation in the Kenyan context would be a welcome element in Kenya's context where such mechanisms are absent. Regulatory sandboxes can be used to test the impact of regulation on lenders' operations and sustainability.

II. ***Digital Lending Regulations –USA:*** Fintech businesses in the United States are not subject to a Fintech-specific regulatory framework by any single federal or state regulator. Rather, depending on the activities of a Fintech company, that fintech company may be subject to a myriad of federal and state licensing or registration requirements and, thereby, also subject to laws and regulations at both the federal and state levels (Sahni, 2021). The number and complexity of potentially applicable U.S. regulations to any single Fintech firm have drawn some criticism as a potential barrier to entry and hindrance to the growth of U.S. Fintech.

As regulators work to develop regulations that will govern the Fintech space, there is also uncertainty as to precisely how the U.S. regulation of Fintech will evolve and how Fintech companies will receive government support and collaboration as the industry develops. Many Fintech companies find that offering their services throughout the United States requires licensing and registration with multiple state regulators, subjecting such Fintech companies to regulation and supervision by the laws and regulations of each such regulator (Sahni, 2021).

The growth of Regtech has also come under the attention of regulators in the USA as an effective way of using innovative technology aimed at helping financial institutions achieve compliance with regulations. There has been an obvious cost pressure on the banks and the pressure of expectation on the U.S. regulators to deploy advanced technology for better analytics, smart contracts, and real-time regulations (Roy, 2017).

There have also been efforts at state and federal levels to establish regulatory sandbox options for Fintech. The objective for establishing these regulatory sandboxes is to transform financial markets by encouraging innovative technology development within a controlled environment, where the regulating agency approves and monitors all participating companies and also designates the approved timeframe for each product in the sandbox, allowing both the economy and consumers to be protected from large or long-term negative effects (McKenzie, 2016).

In July 2018, the U.S. Department of Treasury identified the ability of regulatory sandboxes to promote innovation. Specifically, the Treasury recommended that federal and state financial regulators establish a unified solution that coordinates and expedites regulatory relief under applicable laws and regulations to permit meaningful experimentation for innovative products, services, and processes (Sahni, 2021). On March 23, 2018, Arizona Governor Doug Ducey signed HB 2434 into law, making Arizona the first state in the United States to enact a Fintech regulatory sandbox. The Arizona Attorney General's Office administers the sandbox. On February 19, 2019, Wyoming Governor Mark Gordon signed H.B. 57, the "Financial Technology Sandbox Act," which similarly creates a regulatory sandbox program in Wyoming for companies to test innovative financial products and services, including those using blockchain technologies.

The types of licenses required at the state level include consumer lending, money transmission, and virtual currency licenses. Depending on the number of states and licenses required to be obtained, a Fintech company may find the compliance burden to be extensive as each state has its own distinct set of rules and regulations. The Conference of State Bank Supervisors (CSBS) launched an effort to coordinate licensing and supervision among state supervisors, dubbed Vision 2020. As of year-end 2020, 29 states signed a multistate money services business licensing agreement, a process designed to streamline the money transmitter licensing process (Sahni, 2021).

At the federal level, the Consumer Financial Protection Bureau (CFPB) has jurisdiction over providers of financial services to consumers. Because many Fintech businesses aim to provide services predominantly to consumers, the CFPB can enforce a range of consumer protection laws (such as consumer lending laws and anti-discrimination laws) that

apply to the activities of such companies. The CFPB also has authority to enforce against the use of unfair and deceptive acts and practices generally. To the extent that the activities of a Fintech provider fall within the licensing regimes of other federal regulators, such as the SEC or the Commodity Futures Trading Commission (CFTC), such Fintech providers will be required to register with such agencies and become subject to enforcement by the same.

Instead of having one national data protection law, a variety of federal laws regulate how Fintech businesses collect, use and transmit personal data, including the Gramm-Leach-Bliley Act (GLBA); the Fair Credit Reporting Act (FCRA); the Federal Trade Commission Act (FTC Act); the Wiretap Act; and the Electronic Communications Privacy Act (ECPA). Key federal agencies that have the jurisdiction to enforce these laws include the OCC; the CFPB, the SEC; the CFTC; and the Federal Trade Commission (FTC). Several states have also passed laws that limit the collection, use, and transmission of sensitive information, including social security numbers, drivers' license information, financial data, health data, and others, and have rules relating to data breach reporting notifications.

In summary, the USA does not have a specific regulator or a specific regulatory framework that governs the activities of Fintech credit companies. Fintech businesses are mostly subjected to different laws of the state and federal governments. The state has also embraced Regtech and regulatory sandboxes as an alternative step to an overarching regulator.

VII. RESEARCH FINDINGS

The study sought to develop a case for strategic regulation of Fintech credit in Kenya. This was based on the concern that the proposed regulation on Fintech credit by the Kenyan Parliament and the Government of Kenya did not factor in the sustainability aspects of Fintech credit businesses. The proposed regulation focuses more on consumer protection and assumes that consumers of digital credit act in good faith when it comes to loan repayments. However, surveys have shown that half of the borrowers of Fintech credit have faced delinquency, with 12% of the population having defaulted on the loans given. The study sought to look at the Fintech sector and, based on the findings, provide a basis for formulating a strategic regulatory framework for the Fintech credit sector that creates a balance that promotes and fosters genuinely innovative solutions while protecting investors and the public.

Three research questions were used to respond to the objective of the study. The first research question was; what are the proposed regulations for the Fintech lending sector in Kenya? It was established that the proposed regulations would provide a substantive law to guide the digital lending sector. Therefore, the regulations will make the CBK an overarching regulator, which will merge laws from three regulators, namely the Central Bank of Kenya, the Communication Authority of Kenya, and the Office of the Data Protection Commissioner. The proposed laws also give the Central Bank of Kenya the power to determine the pricing parameters. This will ensure the CBK does not necessarily set the lending rates but rather provide parameters within which digital credit providers shall set their cost of credit. The laws have a proposed implementation timeline of six months for existing digital lenders to comply with licensing and registration requirements.

The second research question was; Are the proposed regulations beneficial to Fintech lending investors in Kenya? It was established that the proposed regulations have a bias towards consumer protection and do not focus on business sustainability. The Central Bank of Kenya has proposals to set the interest rates charged by digital lenders or set the pricing parameters for digital credit. However, there is no evidence to show that a review of the operational business models of Fintech lenders has been done to get the appropriate parameters to be used to ensure that the Fintech lending businesses are profitable and sustainable. Digital lenders in Kenya have also been locked out of the credit reporting ecosystem. They, therefore, cannot share and access the credit information of their lenders. Digital lenders, through their association, have put forward a proposal that will allow them to share both positive and negative credit information of their lenders to the licensed credit reference bureaus. This is deemed as one of the mitigations towards the risk of default.

The third research question was; how should Fintech credit be regulated? Based on the regulatory lessons from other jurisdictions, the main findings were as follows; first, India has a specific Fintech regulator with clear authority over digital credit operators in the country. The Reserve Bank of India, India's Central Bank, has a specific mandate that monitors, licenses, and regulates the operations and conduct of digital lenders. Secondly, there are stronger customer protections regimes in India that ensure the rights of the consumers are upheld and they, as a result, minimize the legal hazards that customers in those countries face.

Thirdly, Fintech credit lenders in the USA are not governed by any specific regulator. They are subjected to various laws and regulations of the federal and state governments. It is worth noting that this approach works in a country that has one of the highest innovations in Fintech, where most of the companies are formed in the Silicon Valley in the United States. However, this scenario creates instances of dual regulation, which does not apply in countries where there is a single regulator. The regulatory burden accompanying this framework has been critiqued as potentially presenting a barrier to entry for non-U.S. Fintech businesses compared to the regulatory framework applicable to Fintech businesses in other jurisdictions.

The study also established two contemporary concepts that could form a strategic regulation approach in Kenya; The use of Regtech and regulatory sandboxes. Both Jurisdictions of

India and the USA have embraced Regtech, which is viewed as steps towards market reform instead of market reaction. As legal and compliance teams increase their understanding of the innovation potential of these start-ups and technologies, RegTech offers a competitive advantage in the market, from painless compliance procedures that enhance customer retention to the avoidance of large regulatory fines diverting capital away from new initiatives. This provides an opportunity for the Kenyan regulation regime to adopt tech-smart regulation.

Both Jurisdictions of India and the USA have introduced regulatory sandboxes as a strategic approach to Fintech regulation. In effect, sandboxes are a controlled environment for experimentation made possible by trading off lighter regulatory obligations against the limitation of participant business models. Their emergence across the globe in recent years illustrates the realization by regulators that technological neutrality is no longer sustainable. Therefore, the sandbox also provides a learning opportunity for regulators to perform their role better, as they are exposed to new business models.

VIII. CONCLUSIONS

This study provides evidence regarding the need for a strategic approach to the regulation of Fintech credit in Kenya. While innovation will continue to evolve rapidly, hence creating new issues regarding regulation, proposing one single regulatory framework or laws will be insufficient for a sector that has become an essential part of finance for households and small and medium enterprises. The laws in place will always be one step behind innovation in Fintech credit. Whereas the need for regulation is not disputed, the proposed regulation protects consumers of Fintech credit. However, it does not factor in the impact of the regulation on business sustainability and innovation, considering that their business models, turnaround times, and risk analysis do not follow conventional credit norms. Regulation, therefore, needs to create a balance that promotes and fosters genuinely innovative solutions while protecting investors and the public. The study has proposed to provide such a balance through an analysis of the common business models used in Fintech credit, embracing Regtech as a tool for market reform, the use of regulatory sandboxes to mitigate the catch-up scenario in regulation, and incorporating key inputs of self-regulation. Financial technology or Fintech has revolutionized all aspects of life over the past decade. It has been disruptive, but it has also changed the way people bank, invest, and shop over the past years. Gupta and Tham (2019) define Fintech as a term used to describe any technology to deliver financial services or products through electronic solutions. It may include software, mobile applications, and the internet. The main objective of Fintech is to transform the way consumers and businesses access and use their finances, making the process more efficient.

IX. RECOMMENDATIONS

Based on the conclusions of this study, it is therefore recommended that:

1. Regulation in Kenya should be calibrated to the risks of a particular product offered. In general, it will be efficient to allow relative prices for various payment-related services to be set based on demand. Setting pricing parameters by the regulator should therefore be avoided.
2. Regulation should maintain a balance in terms of perceived risk and reward. Disparities confuse and may stifle the development of the Fintech industry. If regulation is structured so that banking rules end up applying to peer-to-peer lending platforms but do not confer a full banking status to these businesses, such platforms may be forced to exit the market or restructure the business.
3. Regulators in Kenya should establish regimes to favour newly created start-up businesses to increase competition and stimulate innovation in the financial services market. However, any decision allowing preferential treatment needs to be based on clearly defined rules. While these rules might relax certain regulatory requirements for start-ups, they need to clarify when businesses cease to be eligible for such treatment.
4. Fintech regulation in Kenya must incorporate a degree of flexibility. This flexibility is envisaged by Regtech, which takes care of new product-specific regulation (i.e., development of new rules specifically for each Fintech product or technology), and existing product-specific regulatory framework revised to reflect the emergence of new technology (i.e., modernization of existing rules).
5. Regulators in Kenya should engage in Fintech credit promotion by creating regulatory sandboxes. Sandboxes allow innovators to test their concepts in a deregulated environment or with certain regulatory preferences that the rest of the market does not enjoy. However, the criteria for selecting businesses eligible for any preferential regime should be clear and devoid of regulatory arbitrariness so as not to be perceived as offering an unfair advantage to certain firms.

The study also established two contemporary concepts that could form a strategic regulation approach in Kenya; the use of Regtech and regulatory sandboxes. Both Jurisdictions of India and the USA have embraced Regtech, which is viewed as steps towards market reform instead of market reaction. As legal and compliance teams increase their understanding of the innovation potential of these start-ups and technologies, Regtech offers a competitive advantage in the market, from painless compliance procedures that enhance customer retention to the avoidance of large regulatory fines diverting capital away from new initiatives. This provides an opportunity for the Kenyan regulation regime to adopt tech-smart regulation.

REFERENCES

1. Alexander, K. (2019). Principles of banking regulation. Cambridge University Press.
2. Barberis, J., Arner, D., & Buckley, R. (2019). ˜The REGTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs, and Visionaries in Regulation. John Wiley & Sons Ltd.
3. Beardsley, S., Bugrov, D., & Marschner, A. (2005). The role of regulation in strategy. The Mckinsey Quarterly. Retrieved August 17, 2021, from https://www.cfo.com/strategy/2005/12/the-role-of-regulation-in-strategy.
4. Bookstaber, R. (2008). A Demon of Our Design: Markets, Hedge Funds, and the Perils of Financial Innovation. John Wiley & Sons Ltd.
5. Deshmukh, M. (2021). A Look into the Digital Lending Market in India. Leadsquared.com. Retrieved December 10, 2021, from https://www.leadsquared.com/digital-lending-market/.
6. DLAK Code of Conduct. DLAK. Retrieved December 9, 2021, from https://www.dlak.co.ke/dlak-code-of-conduct.html.
7. Didenko, A. (2018). Regulating FinTech: Lessons from Africa. SAN DIEGO INTERNATIONAL LAW JOURNAL, 19(2), 311. Retrieved November 28, 2021, from https://digital.sandiego.edu/ilj/vol19/iss2/5.
8. FinAccess. (2019). 2019 FinAcess Household Survey. Nairobi: FinAccess.
9. Francis, E., Blumenstock, J., & Robinson, J. (2017). Digital Credit in Emerging Markets: A Snapshot of the Current Landscape and Open Research Questions. Digitalcreditobservatory.org. Retrieved December 9 2021, from http://www.digitalcreditobservatory.org.
10. FSB. (2017). FinTech credit: Market structure, business models and financial stability implications. Report Prepared By A Working Group Established By The Committee On The Global Financial System (CGFS) And The Financial Stability Board (FSB). https://doi.org/ISBN 978-92-9259-051-2
11. FSD Kenya. (2019). Digital credit audit report: Evaluating the conduct and practice of digital lending in Kenya. FSD Kenya.
12. Government Printer. Central Bank of Kenya (Amendment) Act 2021 (2021). Nairobi.
13. Gupta, P., & Tham, T. (2019). Fintech: The New DNA of Financial Services. Walter de Gruyter Inc.
14. Gubbins P., & Totolo E. (2018) Digital credit in Kenya: Evidence from demand-side surveys. FSD Kenya.
15. Hurley, M., & Adebayo, J. (2017). Credit Scoring in the Era of Big Data. Yale Journal Of Law And Technology, 18(1).
16. Kaffenberger, M., Totolo, E., & Soursourian, M. (2018). A Digital Credit Revolution: Insights from Borrowers in Kenya and Tanzania. CGAP AND FSD Kenya Working Paper.
17. Kern, A. (2019). Principles of banking regulation, Cambridge University press, New York, 2019, 4.
18. Klein, M., & Mayer, C. (2011). Mobile Banking and Financial Inclusion: The Regulatory Lessons. The World Bank Policy Research Working Paper 5664.
19. KPMG. (2019). Fintech in India – Powering mobile payments. home.kpmg. Retrieved December 10 2021, from https://assets.kpmg/content/dam/kpmg/in/pdf/2019/08/Fintech-in-India%E2%80%93Powering-mobile-payments.pdf.
20. Koop, C., & Lodge, M. (2015). What is regulation? An interdisciplinary concept analysis. Regulation And Governance. https://doi.org/DOI: 10.1111/rego.12094
21. Lodge, M., & Wegrich, K. (2012). Managing Regulation: Regulatory Analysis, Politics and Policy (12th ed.). Palgrave Macmillan.
22. Loesch, S. (2018). A guide to financial regulation for fintech entrepreneurs. John Wiley & Sons Ltd.
23. McKenzie, B. (2016). Bank Negara Malaysia Issues FinTech Regulatory Sandbox Paper. Retrieved August 12 2021 from http://www.bakermckenzie.com/en/insight/publications/2016/10/bank-negara-malaysia-issues-FinTech/
24. Ministry of Finance, India. (2019). Steering Committee on Fintech related issues. Retrieved from https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1583866
25. Muli, A. K. (2020). Digital lending in Kenya; the case for regulation [Thesis, Strathmore
26. University]. https://su-plus.strathmore.edu/handle/11071/9556
27. Mutuku, N. (2008). Case for Consolidated Financial Sector Regulation. Rba.go.ke. Retrieved December 2 2021, from https://www.rba.go.ke/download/case-for-consolidated-financial-sector-regulation-nzomo-mu/.
28. Pigou, A. (1938). The Economics of Welfare. The Economic Journal, 43(170), 329. https://doi.org/10.2307/2224491
29. Posner, R. (1974). Theories of Economic Regulation. The Bell Journal Of Economics And Management Science, 5(2), 335.

https://doi.org/10.2307/3003113

30. Rahim, M. (2013). Legal Regulation of Corporate Social Responsibility: A Meta-Regulation Approach of Law for Raising CSR in a Weak Economy. Springer.
31. Reserve Bank of India. (2017). Master Directions - Non-Banking Financial Company – Peer to Peer Lending Platform (Reserve Bank) Directions, 2017 (Updated as on October 5, 2021). Delhi: Reserve Bank of India.
32. Rezaee, Z. (2011). Financial Services Firms: Governance, Regulations, Valuations, Mergers, and Acquisitions. Wiley.
33. Roy, S. (2017). Regtech inthe USA-The state we are in. regtechassociation.org. Retrieved December 10 2021, from https://regtechassociation.org/wp-content/uploads/2017/06/RegTech-in-the-USA-The-State-We-are-In.pdf.
34. Safaricom, M-Pesa Timeline. Safaricom. (2016). Retrieved November 28 2021, from https://www.safaricom.co.ke/mpesa_timeline/.
35. Sahni, R. (2021). USA: Fintech Laws and Regulation 2021. iclg.com. Retrieved December 10 2021, from https://iclg.com/practice-areas/fintech-laws-and-regulations/usa.
36. Sandage, T. (2015). The Victorian Internet: The Remarkable Story of the Telegraph and the Nineteenth Century's Online Pioneers. Tantor Audio.
37. Stigler, G. (1971). The Theory of Economic Regulation. The Bell Journal Of Economics And Management Science, 2(1), 3. https://doi.org/10.2307/3003160
38. Tanzania's Mobile Money Revolution. CGAP. (2015). Retrieved November 28 2021, from https://www.cgap.org/research/infographic/tanzanias-mobile-money-revolution.
39. Tatom, J. (2011). Financial Market Regulation: Legislation and Implications. Springer.
40. The Banking Regulation (Amendment) Act, 2017 (2017). India.
41. The Limitation Act, 1963 (1963). India.
42. Totolo, E. (2018). Kenya's Digital Credit Revolution Five Years On [Blog]. Retrieved July 24 2021, from http://cgap.org/blog/kenyas-digital-credit-revolution-five years.
43. Tumwine-Mukubwa, G. (2009). Essays in African banking law and practice (2nd ed.). Makerere University Printery.
44. Walker, C., & Soulis, T. (2020). Global Pharmaceutical and Biologics Regulatory Strategy-Global Regulatory Strategy (2nd ed., pp. 187-203). Regulatory Affairs Professionals Society (RAPS).
45. Watima, T. (2019). Self-regulation key in digital lending Business. Business Daily. Retrieved December 9 2021, from https://www.businessdailyafrica.com/bd/opinion-analysis/columnists/self-regulation-key-in-digital-lending-2254192