



Kiplagat Kipchirchir Victor et al./ Elixir Fin. Mgmt. 124 (2018) 52194-52200 Available online at www.elixirpublishers.com (Elixir International Journal)

Finance Management



Elixir Fin. Mgmt. 124 (2018) 52194-52200

Fintechs in Kenya's Banking Industry: An Emerging Opportunity?

Kiplagat Kipchirchir Victor, Agnes Wausi and Rodah Sitati

University of Nairobi.

ARTICLE INFO Article history: Received: 5 October 2018; Received in revised form: 6 November 2018; Accepted: 16 November 2018;

Keywords

Fintech, Collaboration, Strategic Alignment, Financial Ecosystem.

ABSTRACT

Fintech is a short form of financial technology. It is completely revolutionizing the speed, the scale and the cost of getting financial services to the people by offering new services within the traditional banks, while potentially offering new opportunities within their competitive propositions such as alternative payments and lending mechanisms. Today, mobile payment solutions are available to those without a traditional bank account. Kenya is a world leader in the adoption of mobile payments. M-Pesa, Kenya's first mobile wallet launched in 2007 to seamlessly transfer funds throughout Kenya, had over Kshs 7 trillion transacted and in 2017, the platform had over 1.7 billion transactions (Safaricom MPESA report, 2017). The transaction value processed through M-Pesa in 2018 shall be higher than the Kenya's GDP which is Approx. USD 72Billion. Fintechs services offer diverse new opportunities to the banks and they should be embraced. Proper security measure should be put in place to protect the clients who use the services. Banks should also come up with strategies and ways of approaching and dealing with FinTech firms, to ensure that their interest is safeguarded.

© 2018 Elixir All rights reserved.

Introduction

With these new innovations and Fintechs services, it's evident that most banks haven't been able to cope with these innovations. Most of them lack the technical capability to develop these solutions or even to support them. As a result, they have continued to lose their market share and their customers whose expectations already shifted to digital platforms. Banks are now struggling with the new technology and coping with the changes it bring in the banking industry. This is an opportunity to grow and compete at a given market and take control of the market shares.

In 2000's, the Internet, the mobile penetration and cloud services arose. Together, these powers brought forth new players, new advances and better approaches for serving merchants, banks and customers, adjusting the contentious structures in payments in new and fascinating ways. The obstructions to section to the sections payments models that banks had erected fell and the manner in which income and profits were earned in a payment process would change. New players emerged, utilizing technology to make new offering to users which are more appealing and convenient (Skan, J., Dickerson, J., and Masood, S. 2015). New reward systems and loyalty programs were developed empowered by these players who supplemented existing modes of payments as opposed to suppressing them. The Internet gave merchants an extra customer facing facade through which to serve purchasers and provide other channels through which to drive electronic commerce. The Internet likewise presented new rivalry with new payment channels.

Review Objectives

The review was guided by the following objectives

i) To establish the Fintech market segment in Kenyas Banking sector.

ii)To determine the current status of Fintech in Kenya's banking sector.

iii) To assess the emerging opportunities of fintech in Kenya's banking sector.

Literature Review

Historical perspective of fintechs

FinTech is a short form of financial technology. It all started in 1950s with the birth of credit cards. By then it seemed the biggest breakthrough in banking sector until 1960s when ATMs came to supplement tellers and branches. It was evident by then that more was to come. 1970s saw the start of electronic stock exchange, while 1980s came the ascent of centralized bank servers and more refined information and record-keeping frameworks. Internet and web-based business plans of action emerged strongly in 1990s. The term Financial Technology (Fintech) was majorly written about during the Financial Services Technology Consortium introduced in 1993. Five years later, in 1998, a US Bank launched the principal value-based sites for Internet banking, which was immediately replicated by the other banks across the globe (Coad, A., & Rao, R.; 2008).

In 1950s, people didn't have alternatives of cash or cheques when handling payments, there was no focused approach by banks to effectively manage payments since it was just like a monopoly then (Skan, J., Dickerson, J., and Masood, S. 2015). Actual separation among the cash and cheques modes of payments, it was not in any case an aggressive thought then. 1970's introduced another aggressive dynamic in payments. The three-party framework was conceived where we have channels of payments on one hand, merchants and the purchaser on the other. Fundamentally, this model presented the payments some structure that allowed banks to offer payment options. Visa was born in 1976, by Bank of America (Bank Americard). These attempts to close the deal between banks and merchants came at a decent time making banks have an upper hand in the payments space. Visa then put many resources into development of frameworks and structures that made it costly and even harder for others to duplicate. Most any banks that could make a difference were either with Visa or MasterCard, or regularly both, and were fundamentally entrenched into those frameworks.

Brainard & Lael (2016) shows that the five decades of advancements have given financial technology (Fintech) a foundation which builds the future of payments. It's likewise imperative to take note that all through the 50-year time span, fintech advancements were additionally making more complex risk management, treasury administration and information checking systems within financial institutions. What is striking about the most recent 65 years of advancement in financial technology, is that while they progressed toward becoming standard and broadly utilized. the banking part was not undermined. In actual sense, banks still developed. For example, at the U. S's Federal Reserve information, from 1950 to 2014, branches in the US increased from around 18,000 to more than 82,000 (Arner, D. W. and Buckley, R. P. 2015). It's only recently in 2015, that we started to see real impact of FinTech's in Banking sector. Some banks have been forced to closed branches, and hence the intention of this research to try and make sense out of these scenarios.

In Kenyan context, banks faced with ever larger Kenyan giants like Mshwari, Safaricom's expanding portfolio of financial services and arch rival Equity Bank's product Equitel, resource-constrained small Kenyan banks should look to Fintech startups to maintain relevance as African banking quickly evolves. If the banks weakness and the fintech strengths and vice-versa, then their true strengths lies in their synergies. The best way forward is for banks to recognize that they can actually leverage on Fintechs to jointly take the financial sector to the next level. While Fintechs to recognize as well that the banks, though old, have the key to the stability of world's financial sector. Banks still can mutate basing on their advantage of substantially lower costs of capital than startups and can offer more regulated products like savings and insurance. They also have brands and the ability to cross sell products to their existing customer bases at scale. That means they can invest, acquire or partner with these new tech startups, many of whom are hungry for debt and equity, and some of whom are attracting substantial capital from US investors while local banks look the other way.

Fintechs theoretical review

This section analyses the theories that are relevant to the topic. It shows how fintech uses current market technology

that helps to ease the delivery of financial services to their customers. From the theories, it's confirmed that fintech utilizes information technology as their core resources and has managed the change in the (Broadbent Ben, 2016). The theories include:

Michael Porter's Five Forces Model

Michael Porter is a renowned Professor in the field of competitive strategy. He developed a strategic framework (Prof. Michael Porter's Five Forces Model, 1995) that that has been named after him and was first documented and published in Harvard Business Review of 1979. It highlights and analyses its chances for growth basing it on the competitive forces around it. The profits are a direct determinant of revenue which is directly influenced by the market share. Prof Michael Porter deduces that there are five competitive market forces, in any given industry that every organization faces.

In Porters theory, the five competitive forces are as detailed out below:

Bargaining power of Suppliers: When suppliers come together, they might control a business. Their unique products produced by an organization and the underlying technologies they use might make it very difficult for an organization to change suppliers. The more the suppliers the stronger the power the wielded and the fewer they are, the more the company depends on them to produce more hence unintentionally making each supplier more powerful.

Bargaining power of Buyers: Any business depends solely on the consumer's willing ness to purchase your produce. Buyer controls the supplier since without them the supplier will have no need to continue production. When buyers gang up together they can easily down the prices down hence lower profits for the seller.

Threat of substitutes: Substitutes are similar products that have the power to satisfy the end user's need. When consumers find a product to be too expensive, they can easily shift elegance to a substitute so long as it can satisfy their primary need at that time.

Threat of new entrants: New players entering a market pose serious challenge to the existing firms. In most cases, new entrants come with lower prices in an effort to convince the customer to shift elegance and in the process increase their market share. It's in the interest of all existing firms, to block and discourage new players from coming into a market. The player who captures the most market would reap bigger profits.



Figure 1. Michael Porter's Five Forces Model.

Source: Porter's 1997 Competitive Strategy 7th American Information Management Conference, Perth, Western Australia.

Kiplagat Kipchirchir Victor et al./ Elixir Fin. Mgmt. 124 (2018) 52194-52200

52196

Rivalry from the existing players: Each player does all they can to gain more market share. They deploy all possible strategies to bring this to pass which may include price wars, undercutting each other, use of technology and innovation etc. It's a cut throat competition of numbers. It's from this background that Michael Porter derives several strategies to wither this competition. Some of the strategies proposed include; Cost Leadership, Use of Technology, Alliances and other expansion and growth strategies.

The Porter Models and how it applies in the Growth of Fintechs:

Payments and banking are two very complex ecosystems, more so currently given how much Fintechs are impacting the payments space by use of mobile and other online payments channels. Payments service providers as an ecosystem has different interdependent partners. Buyers empower the payment platforms by generating transactions while banks help facilitate the functionality of these payment channels. Michael Porter's five forces model anticipated such cut throat competitions which we are now witnessing in the handling of payments whether by Fintechs or banks.

Skan, J., Dickerson, J., and Masood, S. (2015), notes that banks began going after online shoppers to utilize their items and sustain themselves with the market competion. As card recognition increased, merchants generally accepted it as a mode of payment, but didn't "steer" the people towards the use of the cards, but banks did. They made a decent attempt to present highlights and upgrades that made their cards more appealing to buyers (Skan, J., Dickerson, J., and Masood, S. 2015). Over that time, big merchants who handle huge volumes, would utilize the power of volumes to create terms that would be more deal with their systems. Looking at the Michael Porters model in relation to theory above as highlighted by Skan, J., Dickerson, J., and Masood, S. (2015), you notice a huge similarity in the effort used by banks to suppress competitive forces. Though rivalry wasn't intense as it is right now, it's clear that Visa and Mastercard have entrenched themselves so much into the card payments ecosystem such that it will be hard to be dislodged.

Strategic Alignment Model

Rathnam, R. G., Johnsen, J., and Wen, H. J., (2004), defines the alignment between bank business strategies and IT strategies as the degree to which the objectives and strategies of a bank's information technology are both supported by the business plans and objectives, as well as how the two sets of strategies are integrated as part of a larger business strategy.

Alignment as a concept was initially presented by Henders on and Venkatraman (1993), who built up and initiated the key alignment model (SAM). In this concept, SAM recognizes the power or internal and external environment in an organization, and what was in the outward environment is now mirroring aggressively in the internal environment. Firms need to make inward decisions on the set up of the IT framework and how it will be aligned to the business goals. SAM is all about the derivation of value from the IT ventures, and how IT strategies requires an alignment to the business goals. It depends entirely on cross-enterprise connections between the business and IT, in order to accomplish fit between the external and the internal space and coordination on both the strategic and operational levels.

As per Reich and Benbasat (2003), alignment is defined "as how much the data and technology's mission, vision, and plans bolster and are upheld by the business mission, strategies and plans." This definition centers around alignment as a state rather than result. Another research point of view centers around the alignment procedure as one "in which directors take an interest in exchange of techniques and knowledge" (Kearns and Lederer 2003).

Banks must utilize this Alignment model to adjust IT effectively to the business systems. The most accepted model across the board and acknowledged theoretically by several researchers is the model of alignment proposed by (Henderson and Venkatraman. 1993). This Strategic alignment model (SAM), is characterized by four segments that must be harmonized and fit to accomplish alignment which empowers firms to take on changing challenges in its environment.



Figure 2. The Strategic Alignment Model.

Fintech Market Segments

Fintechs are offering a host of technological solutions geared towards achieving convenience, faster turnaround times and operation efficiency. Though several scholars have pointed out that Payments space is the most advance segment among the Fintechs (Douglas Arner & Janos Barberis 2015). The leading Fintech segments are:

Payment Services: creative new businesses; banking institutions; card processors; card acquirers and other payment institutions are continuously looking to offer new payment services that take care of buyer demands and are highly fast and convenient.

Data Analytics: New fintech solutions can process and utilize a lot of data made by the financial institutions. Some use of these data is in a way that conflicts with the client's privacy, while others are utilizing this information to help in risk management. Privacy of confidential customer data is of great concerns, and Fintechs must ensure that their privacy is upheld. For example, selected companies can now access top rated customer MPESA data from Safaricom at a fee so long as customer opts in to the service (Safaricom, 2016). This is transforming below the line approaches of Marketing.

Digital Currencies: Also called virtual money. They do not have a common regulatory controlling its usage. They are virtual currencies that are produced as centralized ledgers and distributed via peer to peer networks

Artificial Intelligence: This is the utilization of technology to process big data. Organizations in this space utilize big data analytics to make critical business decisions including forecasting on the customer's behavior, purchase patterns etc. For example, Amazon recently introduced an artificial intelligence system where based on customer's recent purchases, they can recommend related products to their customers.

Group Funding: It's still an untapped market segment. It allows users to plan fund raising for different goals or even to seek funding for their ideas. Safaricom in Kenya recently launched M-Changa which uses similar technology to raise funds for different purposes (Safaricom, 2016).

The current status of Fintech's in Kenya

Kenya has gained a lot of attention for being the "global epicenter" of mobile payments; driven by the success of M-Pesa. Kenyans moved a record \$33 billion via mobile money platforms in 2016. This progress has created a sense of patriotism amongst Kenyans and is bringing greater economic success to the country. Kenyans were fast to adopt M-Pesa and by 2016 it had 20 million users. Kenya's M-PESA is perhaps one of the biggest Fintech breakthroughs in the 21st

century. It's an outstanding success due to its penetration and spread in Kenya. Virtually everyone with a Safaricom sim card uses the MPESA services to send money and to make purchases even in a small shop. Its therefore of great interest to review its success has impacted the banking industry in Kenya which has largely ceded the peer to peer (P2P) transfer of money to the local mobile money operators led by MPESA.

In my analysis of the fintech start-ups in Kenya, I found that nearly a third of Fintechs in the space fell under lending and financing and about a fifth under payments and remittances. Kenya is seeing growth of new companies based on the strong foundation of mobile money in categories such as: Insurtech, crypto-currency and blockchain, group savings, comparison, and business solutions. Kenya has a well-developed mobile money (MM) infrastructure. As a result, the local fintech eco-system is primarily focused on mobile-based solutions and is in many ways more advanced compared to other countries in the continent. On the other hand, dependency on MM is often a barrier to scale, as the adoption rate of MM is still quite low outside of Kenya.

For small banks, afraid of being left behind, the answer is: Technology. Today, technology has made it possible to run a bank for a million people with a hundred people. Mobile phones provide customers with convenience and reduce operating costs. Facebook, MPESA and SIM cards enable identity verification and call & SMS logs allow for risk underwriting. The Android marketplace has made acquiring customers cheaper and faster. Kenya has 42 banks for a population of 44 million compared to Nigeria's 22 for its population of 180 Million and a 10 times larger GDP. With the growing Fintech influence, these banks will have to evolve to the new Fintech-like banking, or many will still fall on the roadside as time goes by. Innovators have new tools to leverage: mobile money, social networks, app stores and data science. And the mantle of innovation has been picked up by startups. Unlike 15 years ago, there are lots of interesting Fintech startups in East Africa doing lending including: Tala, Mshwari, Branch, Saida etc.

Kenya is enjoying a startup renaissance birthed by the distribution and digitization that cheap mobile connectivity and ubiquitous mobile money provide. Though small by comparison, many of these startups have grown their customer bases at a faster clip than local banks because of the speed and ease of use offered by MPESA and Android. But while growth is enabled by mobile platforms, differentiation and profitability will come from a fuller suite of products and lower costs of capital.



Figure 3. Proposed Conceptual Framework for Fintech.

52197

The Future of Fintech: The opportunities they offer

Arner and Janos Barberis (2015), traces 10 years back, when few individuals could have envisioned huge advancements in the financial technology that are right now upsetting the traditional forms of banking. They indicate that the future of Fintech's is indeed bright and will keep on moving forward and advancing in terms of technologies. The huge deposit sitting in the banks now funds online payment apps. Customers now pull their money from the bank using the banking mobile apps. Though banks usually provide a high level of security when deposits are too large to sit on the mobile wallets, eventually, technologies will arise that will enable people to buy properties, pay school fees and do all sorts of bulk payments over the internet. A few years ago, we saw the advent of new fintech innovations including the use of biometrics, artificial intelligence, and big data analytics which kept on shaping our payment methods. Fintech's new businesses offer secure, versatile wallets and payment applications that are enabling the unbanked populaces to securely store their cash and make online purchases without worrying of security of their money. M-Pesa is presumably the best case of such an application.

Coming closer home, the Kenyan technology sector has made its mark on world digital map after the impacts of the revolutionary M-Pesa concept. The creativity, innovation, success and profitability of M-Pesa has triggered a tech revolution not just in Kenya but across Africa. There is ongoing creation of new ideas, some radical others incremental surrounding the M-Pesa ecosystem. Mobile banking, buying and payments for goods and services via Paybill functionality, payment for government services and microloan facilities are now a norm courtesy of the M-Pesa architecture (Safaricom, 2016). Due to this success, interest, resources and accelerated effort has been focused at other areas where technology can be of enormous use in meeting the needs of the Kenyan consumers like health, agriculture and education (Ndemo, 2015).

The conceptual framework

This section demonstrates the proposed framework. The integral part of this conceptual framework is the fact that technology is now becoming a central piece when it comes to development of new processes, new products and new models by financial sector players. I have benchmarked with the leading researchers in the area and reflect a perception that Fintech will be driving growth the entire financial ecosystem

The Proposed Conceptual Framework has three main dimensions:

The input: The is mainly the combination of capital (money flowing in to the organization), technology, and the organizational structures and procedures

The mechanisms that act on the inputs: This is where Fintechs sit in an organization where they create change or improve, they can also disrupt how business has been done, they can create a competition to the existing set up or apply its technology for the benefit of the financial institution

The output: This is the result of the inputs that have been actioned upon buy the Fintechs model. These outputs could be in form of new products and services, or new processes or even completely new business models.

This conceptual framework of FinTech, represent a wide range of views as theoretically written about by other scholars. It shows the power of Fintechs in creating opportunities in existing financial ecosystem and in its turn creating wide range of new innovative products and services that most traditional bank and old players in the market can't cope. Digital innovation provides the foundation for the success of the Fintechs. New technologies keep coming out every day and it's only a few traditional banks that can keep up with this speed. Frame and White (2014), provides that consequences of fintech innovations as being new products, new services, cost reduction and organizational efficiency which cements a similar view postulated by my conceptual framework above.

Methodology

The research employed a content analysis; desktop research to compare the literature available on the Fintechs in Kenya's banking industry and the emerging opportunity. Findings and recommendations of other scholars have been considered for review. The paper has also recommended the way forward on Fintechs in Kenya's banking sector.

Theoretical Models in the Growth of Fintechs:

Reality has brought forth some new and intriguing ways that have increased the focus on the payments space - The FinTech's who have utilized the technology for its upper hand as imagined in the Porters Five Forces Model. All in all, what does that suggest for the eventual fate of payments, and what can Porter's five-power model inform us about the growing concern of the banks? Given the power of the Fintech systems, who continuously use innovation to create new dynamic products, the probability is almost zero that the power of Fintechs will diminish in the future. The banks will simply need to change tact to survive the strong forces of competition coming their way.

Mersch, Yves, (2016) additionally opines that smart phones have heightened the competition on various levels. Applications with embedded payments options have emerged, produced by new players. For existing banking payment channels, they are simply empowered by new innovations that use mobile or other associated devices as the channel for the payment exchange. Numerous digital wallets or applications that use bank channels that ride existing payments systems have emerged.

With the aggressive expansion of Fintechs and in the present condition of high capital, companies and firms without world-class IT infrastructure that are firmly aligned with the business, it will be harder for businesses to improve the production and efficiency, control costs, adjust rapidly to market dynamics and changes, and accomplish different business targets. Banks will require an aligned administrative model that enhances coordinated effort between the business and IT. The business units can use the strategy and master plan that IT has amassed throughout the years, while IT can position itself as an esteemed business accomplice that brings an interesting point of view by contributing bits of knowledge obtained in the technology domain.

Fintech Ecosystem

Arner, D. W., Barberis, J. N. (2015), hypothesize that FinTech is a significantly unique industry with unique convergence of the financial services and technology. Where technology-centered new companies and new market participants improve the products and services which were traditionally given by the conventional financial services industry. Fintechs are very aggressive in creating new opportunities to the conventional financial establishments and the monetary situation in numerous countries and markets. Cutting edge technologies deployed by the FinTech organizations are penetrating new market, redrawing the scenes and obscuring the lines that once characterized players in the financial services and banking industry. He, Habermeier, Leckow, et al (2016), shows that where traditional banks are falling flat, Fintechs are succeeding due to its outstanding ecosystems. As customers are getting more used to the technological advancements offered by the Fintech organizations e.g. Google, Amazon, Facebook and Apple, they expect a similar level of technological advancements especially on customer access points from their financial services suppliers. FinTech is strongly emerging as a better option especially on offering services that are more likely to address customer needs by offering improved effectiveness, convenience and custom-made products. In this specific circumstance, the quest for customer centricity has turned into a principle need for all financial service providers and it will address the issues of technologically advanced demographic.

In the next decade, the normal financial services consumer profile will change drastically as the Baby Boomer ages and Generations X and Y will affect many critical areas of the worldwide economy. The youth, "Twenty to thirty-year old's" (those who were born somewhere in between 1980 and 2000), are representing a radical change in the customer demographics, practices and expectations. Its inclination to the world class customer experience, speed and convenience will additionally quicken the acceptance of FinTech arrangements. Recent college graduates appear to demand a more customer centric approach to the whole financial framework, a move that is solidified in the DNA of FinTech organizations. It's clear that the most essential strength of Fintechs is exemplary focus on customer needs for speed and convenience.

Today, mobile payment solutions are available to those without a traditional bank account. Kenya is a world leader in the adoption of mobile payments. M-Pesa, Kenya's first mobile wallet launched in 2007 to seamlessly transfer funds throughout Kenya, had over Kshs 7 trillion transacted and in 2017 the platform had over 1.7 billion transactions.

The changing face of banking

Several investors and entrepreneurs are shifting their focus to the FinTech space. The pressure is turned to the traditional financial establishments which must act fast to losing market share. Although it is profoundly improbable they will be completely wiped out by the surge of FinTech, they have a threat of being outflanked (He, Habermeier, Leckow, et al (2016). MS Chishti, a leading banker in South Africa, says "FinTech is part a 'two-fold edged sword' for banks, where on one side, the Fintechs and the tech enthusiasts are posing the greatest risk that the financial services industry has ever found in its history, where these players now serving the customers directly. Then again, FinTech firms give the technology that banks can leverage on to accelerate the development and change procedures of existing financial services. For banks to survive in the long haul, they will need to partner with the same tech firms to offer financial services to their current customers and many other potential customers internationally. The use of Big Data too is a vital ingredient for banks to use in decision making, a service easily offered by the fintech organizations."

It's obvious that the banks have been 'computerized' for a long time, using biometrics and blockchain for instance, though regularly out of sight. It is basic that banks proceed to fully modernize and expel the more manual features of their organizations. It will be great to see financial institutions partnering with Fintech organizations to advance automated financial services to their customers. Adrian Shedden, a senior partner at Burges Salmon, brings up that we are seeing the production of an "advantageous relationship" between traditional banks and FinTech firms.

Another strategy a bank may seek, is to gain control of FinTech organization altogether. Unmistakably, many significant banks are trying harder to adjust to the new technology. Nonetheless, some other banks are swinging to strategies use by the 'real internet powers' to survive the cut-throat competition in the market. As indicated by IDC Report (2016), the quantity of FinTech acquisitions from 2014 to 2015 climbed by 66 percent, and it appears to be getting more traction in the years to come.

Conclusions

Traditional banks may be forced to start thinking and acting like Fintechs. They will have to take the form of Fintechs in offering customers simplicity and convenience and aligning itself to the convenience at which Fintechs have offered customers their services so seamlessly. The financial services revolution is under way, but the real impact on current banking may yet to show itself. This revolution can change the bank's relevance in the current payments sector. It's only those who will adjust and strategically place itself to take advantage of this revolution will survive as customers start to move to faster, cheaper and efficient modes.

Several banks in Kenya have started to close branches as the impact of mobile money service on banking starts to bite. Several staff have also been retrenched by these banks in the last few months as the banks try to cut costs and align its operations. Banks are starting to change tact in response to the growth of Fintechs. Most have embraced partnership and collaboration with leading technology providers in an effort realize value from their businesses. Innovation will be king going forward. It's only those banks that will aggressively innovate and take advantage of emerging technologies to better their service offering to their customers, that will remain relevant and profitable.

Both banks and Fintechs will realize more benefit and competitive advantage if they realize that their future interest is well more secured when they converge. To appreciate this convergence, it's worth nothing that both fintech companies and traditional banks have their respective strengths which are the sources of their competitive advantages. Fintechs are so good in building user friendly and best client interfaces systems. They rarely own the underlying IT infrastructure, but their mission is to give the client the convenience and user experiences which is way better than what banks offer. Banks, on the other hand, build long term relationships with customers. They are heavily regulated and have great knowledge in the world of financial infrastructure.

Recommendations

The paper recommends that Banks in collaboration with the central bank should set policies to guide and control the use of fintech services by non-banking institutions to safe guard the interest of banks in Kenya.

Fintech services have a bright future in the banking sector only if policies are put in place. Both the banking and non-banking institutions should be involved during policy development.

Fintechs services offer diverse new opportunities to the banks and they should be embraced. Proper security measure should be put in place to protect the clients who use the services. Banks should also come up with strategies and ways of approaching and dealing with FinTech firms, to ensure that their interest is safeguarded.

References

Arner, D. W., Barberis, J. N., & Buckley, R. P. (2015). "The Evolution of Fintech: A New Post-Crisis Paradigm?" (Extracted from http://papers.ssrn.com/sol3/Papers).

Brainard, Lael(2016), "The Use of Distributed Ledger Technologies in Payment, Clearing and Settlement," *Speeches at Institute of International Finance Blockchain Roundtable*, Jan 14, 2016.

Brook, J. (2011). How a Smart Follower Becomes a Top Performer: An Institutional Innovation Perspective on Competitive Advantage (Working Paper No. 2389/2011/13). *Maastricht School of Management*.

Burgelman, R. A. (1983). A Process Model of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly*, 28(2), 223-244.

Business Daily Online, Retrieved on May 26, 2017, from: https://www.businessdayonline.com/kenyans-beat-nigerians-mobile-money-transfers/

Central Bank of Kenya Annual Report, (2014); Retrieved May 20, 2017, from https://www.centralbank.go.ke/uploads-/850146089_2014%20Annual%20 Report

Coad, A., & Rao, R.(2008). Innovation and firm growth in high-tech sectors: A quantile regression approach. *Research Policy*, 37(4), 633-648.

Douglas Arner & Janos Barberis (2015), FinTech in Africa: From Shadow Banking to P2P Lending, in Banking Beyond Banks & Money. *Chapman and Hall, London*, pp. 466-480

Equity Bank (2016). Annual Financial Report. Retrieved on 23rd June 2017, from http://www.equitygroup.co.ke/ financials-reports/investor-reports

Frame, W. S., and White, L. J. (2014). "Technological change, financial innovation, and diffusion in banking," (available at http://ssrn.com/abstract&&&2380060).

Global FinTech Report, (2016); Retrieved on 13th May 2017 from https://www.pwc.com /gx/en/industries /financialservices/assets/pwc-global-fintech-report-2017.pdf

Government of Kenya(2007). Vision 2030. Nairobi: Government Printers.

Henderson, J. C., and Venkatraman, N (1997), "Strategic Alignment: Leveraging Information Technology for Transforming Organizations," *IBM Systems Journal* (32:1), 1993, pp. 3-16.

International Data Corporation (IDC) Report,(2016). Retrieved on 23rd May 2017, from http://www.idc.com /prodserv/insights/#financial

Iwamura, Mitsuru and Kanda, Hideki (1995), "Data–Hogo No Gijutsu To Hou (Law and technology for data protection)," July 1995.

Karen G Mills and Brayden McCarthy (2014), "Enabling the FinTech transformation: Revolution, Restoration, or reformation?" June 17, 2014.

Lerner, J., and Tufano, P.(2011). "The consequences of financial innovation: a counterfactual research agenda," *National Bureau of Economic Research*. Pp 123-165

Mazza, C., and Alvarez, J. L.(2000). "Haute Couture and Prêt-à-Porter: The Popular Press and the Diffusion of Management Practices," *Organization Studies*(21:3), pp. 567-588.

Melissa Volin & Farrell Sklerov (2014), Fintech Investment Report, Accenture and Partnership Fund for New York City, BUSINESS WIRE (May. 25, 2017),http://www.businesswire. com/news/home/20150625005146/en/Fintech-Investment-

U.S.-Tripled-2014-Report-Accenture#.VgqX2nqqpBc.

Mersch, Yves (2016), "Distributed ledger technologypanacea or flash in the pan?" Speech at Deutsche Bank Transaction Bankers' Forum, April 25, 2016.

Porter, Michael E. *Harvard Business Review*. Jan 2008, Vol. 86 Issue 1, p78-93. 16p. 1

Ndemo, E. (2015). Political Entrepreneurialism: Reflections of a Civil Servant on the Role of Political Institutions in Technology Innovation and Diffusion in Kenya.

Rathnam, R. G., Johnsen, J., and Wen, H. J.,(2004). Alignment of business strategy and it strategy: a case study of a fortune 50 financial services company. *Journal of computer information systems*, 45 (2), 1-8.

Rogers, E.M. (2003). Diffusion of innovations (5th ed.). New York: Free Press. Stability: International Journal of Security and Development, 4(1).

Safaricom. (2016). M-PESA -Mobile Money Transfer Service -Safaricom. Retrieved May 20, 2017, from http://www. safaricom.co.ke/personal/m-pesa

52200