# FINANCIAL TECHNOLOGY (FINTECH) ADOPTION: ADAPT OR FOLD. THE LOOMING DOOM OF THE MICROFINANCE INSTITUTIONS (MFIS)

Darlington Chukwuka Ossai<sup>1</sup>, Leelavathi Rajamanickam<sup>2\*</sup>,

<sup>1</sup>Student, Center for Software Engineering,

<sup>1</sup>Faculty of Engineering, Built Environment & Information Technology, SEGIUniversity, 47810 Selangor, Malaysia.

\*2Senior Lecturer, Center for Software Engineering,

<sup>2</sup>Faculty of Engineering, Built Environment & Information Technology, SEGIUniversity, 47810 Selangor, Malaysia. For correspondence; Tel. + (60) 03-6145 1777, E-mail: <sup>2</sup> leelavathiraj@segi.edu.my

ABSTRACT — The microfinancing strategy adoption has grown rapidly across the world and reached to some level of success. As there was a lack in infrastructure and proper management information systems, that lead to MFIs demanding higher interest rates, paving the way for customers' poor repayments, making it difficult for MFIs to sustain their operations. Researchers and practitioners had expressed their opinions on how financial technology (FinTech) adoption can help MFIs achieve sustainability. The objective of this study is to highlight the unfortunate fate of MFIs who are reluctant or unable to integrate FinTech into their operations amid challenging competitions from FinTech companies and traditional banks. The rapid growth of online lending platforms, online banks, use of e-wallets, e-payments and other modern technologies used by FinTech companies to deliver financial services have not gone unnoticed. The adoption of technology and Sustainable of MFIs continue to be the goal for government across the world. The effect of FinTech adoption on MFIs operational performance can reduce costs and enhance business processes of delivering financial services through electronic delivery channels promoting sustainability.

Keywords — adoption, financial technology, micro financing banks, management sustainability.

### I. INTRODUCTION

The poverty is a topic that has plagued many nations across the world. Different alleviation programmes and strategies have been introduced to combat it. One of which is microfinance derived from the term micro-credit pioneered by Muhammad Yunus, the founder of Grameen bank. As defined by Beck, microfinance is the "attempt to provide financial services to households and microenterprises that have been excluded from traditional or commercial banking services, typically low-income, self-employed unemployed individuals" [1]. Over the decades, microfinance strategy's adoption has experienced significant growth, mostly in developing economies across the world and some level of success.

Mandated with providing financial services to the poor and achieving financial inclusion, the road to success has been a tough one, particularly for MFIs in developing economies. The lack of necessary infrastructure and proper management information systems, coupled with the inability to afford the adoption of needed Financial Technology (FinTech) makes the cost of administering a simple loan become high [6]. This then leads to MFIs demanding higher interest rates, paving

the way for customers' poor repayments, making it difficult for MFIs to sustain their operations. Technology advancement has brought some hope on how such problems can be tackled to assist MFIs in achieving their objectives. It

has been a game-changer in many industries, and the finance industry is no different.

Researchers and practitioners alike have expressed their opinions on how financial technology (FinTech) adoption can help MFIs achieve sustainability. MFIs who have joined the bandwagon of FinTech adoption have been able to gain better access to information, achieve swift processing of loans, transparency, improve operational efficiency, improve service delivery, make better decisions and drastically cut

costs [12]. With this knowledge, there are MFIs that are yet to buy into the adoption of Fintech. Many not because they do not believe in its benefits but for a plethora of other reasons.

The innovation brought about by technology is indisputable and has been the driving force behind many economic and industrial revolution. Providing a rewarding experience for many industries, it has not been without disadvantages, more so in the case of the microfinance industry. Technology advancement has added new competitors besides traditional banks known as FinTech startups, FinTech firms or FinTech companies which has caused significant disruptions in different finance industry segments. The objective of this study is to highlight the unfortunate fate of MFIs who are reluctant or unable to integrate FinTech into their operations amid challenging competitions from FinTech companies and traditional banks. The adoption of FinTech or lack thereof could be a fatal misjudgment for late adopters and nonadopters, leading to more closure of MFIs across the world. The study aimed to add to the body of literature across relevant topics and was based on secondary data derived from over 70 published literature from prior research.

# II. FINTECH COMPANIES VS TRADITIONAL BANKS VS MFIS

FinTech companies as defined by Gomber, Koch and Siering [5] refers to "innovative and disruptive firms who make use of available technologies to create new business models that are secured, flexible and efficient than that of the traditional financial service providers. The rapid growth of online lending platforms, online banks, use of e-wallets, e-payments and other modern technologies used by FinTech companies to deliver financial services have not gone unnoticed [14]. FinTech as an industry continues to experience exponential growth which saw global investments in the industry increase significantly from \$US1.8 billion in 2010 to \$US19 billion in 2015 [8]. As of 2018, the global FinTech market

was estimated to be worth \$US127.66bn with a compound annual growth rate of 24.8% primarily due to its disruption in many different finance sectors. Such sectors as illustrated [3] as shown in Fig.1.

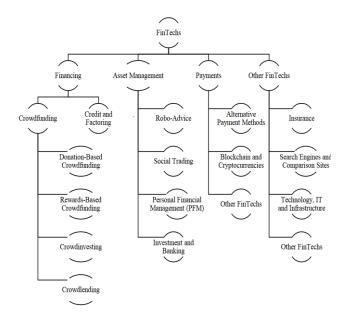


Fig. 1 Segments of the FinTech Industry

With the aggressive growth of FinTech companies over the years, traditional financial institutions have taken notice and watched as FinTech companies slowly eat away a fair amount of their market share. This has triggered a wake-up call which has seen them adapt their business models to rival FinTech companies, incorporating new technologies to remain relevant. As the author explained that FinTech adoption in banking has now become a fundamental part of the traditional banking practices amid growing competitions from FinTech companies [13]. The opined that such FinTech integration has boosted corporate relationships and enhanced the speed and quality of service delivery for banks actively integrating new technologies into their business model [2].

The adoption and implementation of FinTech that was once a luxury have now become a compulsion for survival. It is especially true in the case of microfinance institutions, as many across the world continue to battle for sustainability. The foundations on which microfinance was created is to provide financial services to the financially marginalized people and businesses of the society fostering financial inclusion. With the objective of their inception engrained in social responsibility and not profit-making, survival was never going to be an easy task.

On the contrary, FinTech companies continue to gain momentum leveraging technology in more areas of financial services on offer. Technology advancement continues to be on the rise in local communities across the world, and so has been the affordability of smartphones and other devices. This has only played into the prerogative of FinTech companies who are already scooping up MFI customers luring them with low-interest rates, speed of service delivery and the

convenience of banking at the comfort of their homes.

In the wake of stiff competition from FinTech companies, traditional banks have conceded, acknowledging that competing with FinTech companies on some technological platform is not practical. This is because banks are guarded by specific banking rules and regulations that limit their operations which do not apply to FinTech companies. In an effort to reduce losses and improve market share, banks are now having to re-think their business model, providing financial services to the unbanked population once deemed ineligible or unqualified. This has seen some banks partake in the global objective of financial inclusion, diversifying their portfolios and providing services once exclusively offered by MFIs. With robust financial backing, easy adoption and assimilation of technologies, accumulated expertise in providing financial services and the easy acquisition of highly qualified personnel, it is hard to see how MFIs can compete with banks.

# III. FINTECH ADOPTION AND MFI'S

With a noticeable number of MFIs across the globe closing shop and filing for bankruptcy, MFI sustainability has drawn practitioners and researchers' attention as to the causes and remedies of what needs to be done. The key to MFI survivability might lie in the adoption of FinTech and almost a decade later, this has proven to be true [7].

In their paper 'digitalizing microfinance in Europe' stated that, for MFIs in Europe to remain competitive, they would have to keep pace with the adoption of new technological solutions[12]. This was echoed by who warned in their findings that the adoption of FinTech is the way to go if MFIs do not want to lose their customers to competitors like FinTech companies and traditional banks [15].

In relation to Sri Lanka microfinance advised that MFIs need to be religious in their adoption and utilization of FinTech as it is an integral part of their sustainability [6] objective and financial inclusion. In their findings on the adoption of mobile FinTech emphasized that mobile FinTech helps in drastically reducing the inefficiencies of Ghanaian MFIs. Conducting a study on the importance of FinTech adoption among MFIs in Tanzania, [9] concluded that the adoption of FinTech plays a vital role in the delivery of financial services to customers via electronic channels.

The effect of FinTech adoption on MFIs operational performance can reduce costs and enhance business processes of delivering financial services through electronic delivery channels promoting sustainability [10]. With the apparent benefits of FinTech adoption, why are some MFIs not adopting FinTech?

The paper "digitalizing Microfinance in Europe" listed the lack of funding, unprepared clients, Management Information System (MIS) limitations and unprepared staffs among others as obstacles to FinTech adoption [12]. The factors influencing the adoption of FinTech highlighted that the size of an MFI and the availability of necessary technological infrastructures or lack thereof including hardware, software, and adequate internet limits MFIs in Kampala Uganda from adopting FinTech.

The high cost of FinTech, frequent power failure, high cost of Internet packages, lack of financial resources and lack of FinTech related support as the major deterrents of FinTech adoption in Kenya [11]. This was also reiterated by reverberating the lack of financial resources and tech-savvy employees as some of the factors preventing Northern Sri Lankan MFIs from adopting FinTech [6]. Other barriers to FinTech by MFIs include the uncertainty of what technological tools to adopt, scepticism of FinTech adoption's benefits over the cost, lack of technical support, and the difficulty in acquiring qualified personnel to manage the information.

#### IV. CONCLUSIONS.

With so many reasons as to the obstacles of FinTech adoption among MFIs, it is almost impossible to see a survival route predominantly for MFIs in developing economies. Most are small in nature, struggling to get donors or investments, and the government do little to nothing for support. MFIs are currently at the bottom of the food chain, losing market shares to FinTech companies and traditional banks. The adoption of FinTech into their operations, coupled with their personal interaction with clients, can be an advantage not offered by competitors. FinTech adoption can reduce operational cost, consequently leading to low-interest rate and increasing staff efficiency and speed in delivering financial services. Implementing FinTech solutions will also help MFIs take advantage of the widespread and increasing use of smartphones and the internet in reaching remote customers, increasing their outreach.

Nonetheless, not all MFIs can afford the costs associated with the adoption of technology which is why more MFIs are bound to go bankrupt. The adoption of technology has always been favourable to "bigger firms" which also applies to MFIs capable of adopting and implementing FinTech into their operations. Sustainable MFIs continue to be the goal for government across the world, so there are constant amendments in procedures and policies surrounding MFI operations. An excellent example of this is the Nigerian government increasing the capital base of Nigerian MFIs by 70-100% by April 2021 to improve sustainability. Given the double-pronged encroachment by FinTech companies and traditional banks, coupled with the inability of some MFIs to adopt technology, it is sad to predict that 30 percent of MFIs in the world would be out of business by 2031.

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## REFERENCES

- [1] T. Beck, Microfinance: A Critical Literature Survey. Washington: Independent Evaluation Group, The World Bank Group. 5(4) (2015) 1-59.
- [2] T. D. Dabwor, O. Ezie, O, and P. Anyatonwu, Effect of ICT adoption on competitive performance of banks in an

- emerging economy, the Nigerian experience, Journal of humanities and Social Science. 22(8) (2017) 81-89.
- [3] G. Dorfleitner, L. Hornuf, L. Schmitt, and M.Weber, The fintech market in Germany. In FinTech in Germany. 7(4) (2017) 13-46.
- [4] E. A. Elliot, B. Ngugi, and C. A. Malgwi, Mitigating microfinance marketing channels inefficiencies with customerization of mobile fintech, International Marketing Review. 35(4) (2018) 619-636.
- [5] P. Gomber, J. A Koch, and M. Siering, Digital Finance and FinTech: current research and future research directions, Journal of Business Economics. 87(5) (2017) 537-580.
- [6] M. Guganeshan, and S. Perampalam, Understanding ICT's Role in Microfinance to Improve Financial Inclusion in Northern Sri Lanka. Available at SSRN 3043721. (2017) 1-18
- [7] R. J. Kauffman, and F. J. Riggins, Information and communication fintech and the sustainability of microfinance. Electronic Commerce Research and Applications. 11(5) (2012) 450-468.
- [8] C. Leong, B. Tan, X. Xiao, X., F. T. C. Tan, and Y. Sun, Nurturing a FinTech ecosystem: The case of a youth microloan startup in China. International Journal of Information Management. 37(2) (2017) 92-97.
- [9] H. T. Mwashiuya, and U. O. Mbamba, Relationship between Information Communication Fintech Adoption in Microfinance Institutions and Access to Financial Services in Tanzania. International Journal of Information, Business and Management. 11(3) (2019) 9202.
- [10] H. T. Mwashiuya, and U. O. Mbamba, Relationship of Information Communication Fintech Adoption on Microfinance Institutions operational performance and Access to Financial Services in Tanzania. International Journal of Information, Business and Management. 12(1) (2020) 214-237.
- [11] C.K. Nyandoro, Factors influencing information communication technology (ICT) acceptance and use in small and medium enterprises (SMEs) in Kenya (Doctoral dissertation, Capella University). (2016).
- [12] J. Pytkowska, and P. Korynski, Digitalizing Microfinance in Europe: Microfinance Centre. (2017) 1-12.
- [13] I. Romānova, and M. Kudinska, Banking and Fintech: a challenge or opportunity?. In Contemporary issues in finance: Current challenges from across Europe. Emerald Group Publishing Limited. 98 (2016) 21-35.
- [14] V. H. Sangwan, P. Prakash, and S. Singh, S, Financial fintech: a review of extant literature, Studies in Economics and Finance, 37(1) (2019) 71-88.
- [15] P. Vandeputte, B. D. Toffol and R. Peirce, The role of FinTechs in the business model of microfinance institutions in Western Europe: A qualitative study. Louvain School of Management, üniversite catholique de Louvain, Louvain, Belgium. (2017) 1-187.
- [16] W. Mutumba, W. Factors Influencing the Adoption of Financial Technology by Tier 4 Microfinance Institutions in Kampala (Doctoral dissertation, Makerere University). (2018) 1-60.