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Exploring The Relationship Between Microfinance and Innovation in the 21st century

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Abstract

Microfinance is a social innovation that focuses on the financing of micro-entrepreneurs excluded from traditional bank financing. And thanks to this financing, which is the form of microcredit, the beneficiaries launch income-generating activities, which allow them to integrate into the country's economic circuit. Microcredit is a service managed by microcredit associations (AMC) which place the financing needs of the poor at the center of their concerns and consider microcredit as a non-profit activity and the sums generated by the financing of the poor , are only for the financing of the operating costs of the AMC (staff cost, rent, etc.) and since the needs in terms of financing of this population are in extreme evolution, , i.e. it develops and innovates new financial products/services adapted to the new needs of its beneficiaries . This article aims to respond to the problem of innovation in the microfinance sector with the main lines of the innovation in the banking sector as well as the innovation process of AMCs.

Keywords

Microcredit, micro entrepreneurs, financing, social innovation.

1. Introduction

Microfinance, also known as microcredit, is a financial service that aims to provide small loans and other financial services to low-income individuals who lack to access to traditional banking services.

The concept of Microfinance originated from the effort of Dr. Muhammad YUNUS, a Bangladeshi economist and banker, who founded the Grameen Bank in 1983. Dr. YUNUS be levied that providing small loans without collateral of these people could help them to start or expand their businesses, generate income, and eventually lift themselves out of poverty. Today the Microfinance industry has grow into a global movement, with millions of people worldwide benefiting from Microfinance services .

Microfinance institutions (MFIs) are now found in many countries, providing small loans, savings accounts , and other financial services to low-income individuals and households. In recent years, there has been a growing interest in Microfinance innovation to make financial services more accessible, affordable, and sustain. MFIs are increasingly using technology to digitize their services, expand their reach, and streamline their operations. This has enabled them to reach more people in remote areas, reduce transaction costs, improve customer experience, and deliver financial services more efficiently.

Innovation in Microfinance have also led to the development of new financial products such as micro insurance, mobile banking and social impact bonds. These products aims to address the specific needs of the poor and promote social inclusion.

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Microfinance innovation has played a critical role in promoting financial inclusion and reducing poverty.

Digital technologies, new financial products, and innovative business models have all contributed to expanding access to financial services for underserved communities, further investment in Microfinance innovation are needed to ensure that more people can access financial services participate in the formal economy. Here more in details some of the microfinance innovation that have been implemented in the recent years.

2. Digital financial services

Technological innovation in finance is not new, investment in new technology has substantially increased in recent years and the pace of innovation is exponential. We now interact with our bank using mobile technology. We make payment CC, transfer money and make investments unsung a variety of new tools that were not there few years ago. Artificial intelligence, social networks, machine learning, mobile applications, distributed ledger technology, cloud computing and big data analytics have given rise to new services and business models by established financial institutions and new market entrants.

All these technologies can benefit both consumers and companies by enabling greater access to financial services, offering wider choice and increasing efficiency of operations. They can also contribute to bringing down national barriers and spurning competition in areas such as

Online banking, online payment and transfer

Online banking, online payment and transfer

Peer-to-peer lending

Peer-to-peer lending platforms have also emerged as a popular option for microfinance institutions, allowing them to connect borrowers and lenders directly and reduce transaction costs. This has led to increased efficiency and lower interest rates for borrowers, as well as greater transparency and security in the lending process.

Personal investment advice and services

Digital financial services (DFS) have revolutionized microfinance innovation by enabling quicker access to financial services to the unbanked and underserved populations. Mobile money has become a game-changer in the sector as it can offer clients access to financial services in remote areas. Digital transactions provide transparency and reduce the cost of banking services by eliminating intermediaries. MFIs can leverage digital financial services to conduct transactions such as loan disbursement, repayments, savings, and insurance with ease.

Now we show the impact of DFS on Microfinance as follows. The adoption of DFS in microfinance has had a profound impact on the sector, mainly through the following ways:

1. Enhanced Financial Inclusion: DFS has been instrumental in promoting financial inclusion by expanding the reach of financial services to underserved and unbanked populations. As a result, more people have been able to access formal financial services, which has improved their financial well-being.

2. Reduced Costs: DFS has also enabled MFIs to reduce their operational costs, mainly through reduced infrastructure and personnel costs. This has made it possible for MFIs to offer financial services at affordable rates, particularly to low-income customers.

3. Improved Efficiency: DFS has improved the efficiency of service delivery in the Microfinance sector by reducing transaction times and minimizing errors. This has led to improved customer satisfaction and increased operational efficiency.

4. Increased Customer Base: DFS has enabled MFIs to reach a broader customer base, which has resulted in increased loan disbursements and higher revenue streams. This has also enabled MFIs to diversify their financial products and services.

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DFS has revolutionized the provision of financial services in the microfinance sector by enabling MFIs to reach more customers, reduce costs, and improve their efficiency and effectiveness of service delivery. The impact of DFS on microfinance has been profound, leading to enhanced financial inclusion, reduced costs, improved efficiency, and an increased customer base. Therefore, MFIs that embrace DFS are likely to remain competitive and relevant in the future.

3. Technological Advancements

There have been several technological advancements in microfinance that have transformed the industry in recent years. One of the most significant advancements has been the rise of mobile technology, which has enabled microfinance institutions to reach clients in remote areas and provide financial services through mobile banking apps.

Over the years, technological advancements have played a significant role in the evolution of microfinance, making it easier, faster, and cheaper for microfinance institutions to reach underserved populations. In this paper, we will discuss the different technological advancements that have been made in the microfinance industry, and how these advancements have impacted the sector.

3.1. Mobile Money

One of the significant technological advancements in the microfinance industry is mobile money. Mobile money is a financial service that enables users to receive, store, and send money using a mobile phone. In developing countries, where access to traditional banking services is limited, mobile money has been a game-changer. According to a report by GSMA (showed in Fig. 1.), the number of active mobile money accounts in sub-Saharan Africa has quadrupled since 2014, reaching over 300 million by the end of 2019 [2], Mobile money has made it possible for microfinance institutions to offer financial services to remote and underserved populations at a lower cost.

3.2. Mobile Application

Mobile applications have also played a significant role in the advancement of microfinance. Mobile applications offer customers an easy and convenient way to access financial services on their smartphones. They can also reduce the costs associated with running a microfinance institution and enable microfinance institutions to reach more customers. For instance, Tala, a microfinance institution that operates in Kenya and Tanzania, uses a mobile application to offer its customers short-term loans ranging from $10-$500. Tala uses machine learning algorithms to analyze data from mobile phones to determine the creditworthiness of its customers.

3.3. Blockchain Technology

Blockchain technology is another technological advancement that is transforming the microfinance sector. Blockchain technology is a decentralized digital ledger that can record transactions in a secure and transparent manner. Blockchain technology is being used to create a more secure and efficient microfinance system. For instance, AID:Tech, an Irish blockchain startup, has developed a platform that uses blockchain technology to deliver aid to refugees in Syria. The platform enables donors to track their donations, and beneficiaries can use the platform to receive aid directly.

Technological advancements have played a significant role in the evolution of microfinance. Mobile money, mobile applications, blockchain technology, and artificial intelligence have all made it easier, faster, and cheaper for microfinance institutions to provide financial services to underserved populations. As technology continues to advance, we can expect to see even more

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innovative solutions that will make financial services more accessible to the poor and low-income individuals in developing countries.

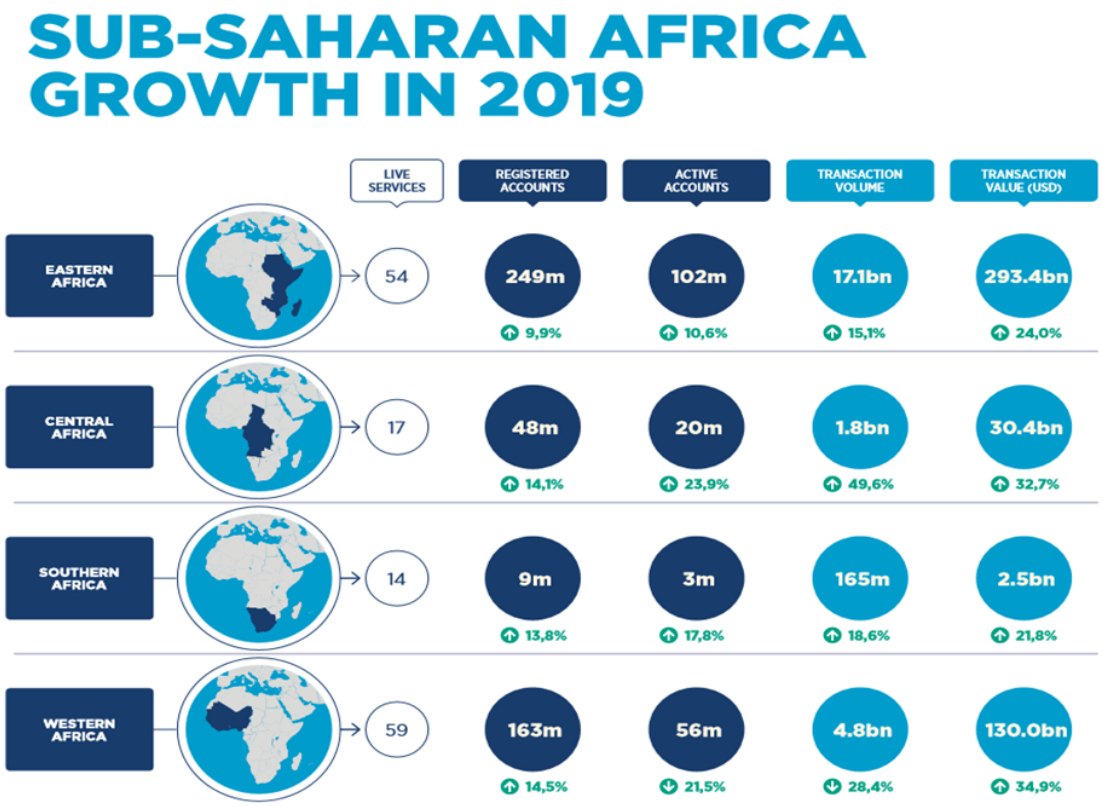

Figure 1: Sub-Saharan Africa growth in 2019

Blockchain technology offers several advantages that can address the limitations of traditional microfinance systems. Here are some key areas where blockchain can make a significant impact:

1. Enhanced Transparency and Accountability: The decentralized nature of blockchain ensures transparency and immutability of transactions. This can help eliminate fraud, corruption, and mismanagement, which are common challenges in the microfinance sector. By providing a transparent and auditable record of transactions, blockchain can build trust between borrowers, lenders, and other stakeholders.
2. Improved Access to Financial Services: Blockchain technology can enable secure and efficient cross-border transactions, reducing the need for intermediaries and associated costs. This can facilitate financial inclusion by providing individuals in underserved areas with access to loans, savings accounts, and other financial services.
3. Efficient and Cost-effective Operations: Blockchain-based smart contracts can automate loan disbursements, repayments, and other financial transactions. This eliminates the need for manual processes, reduces paperwork, and lowers operational costs for microfinance institutions. Additionally, blockchain can enable faster and more accurate credit assessments by leveraging data from various sources, including social media and mobile phone usage.
4. Strengthened Privacy and Data Security: Blockchain technology can provide individuals with control over their personal data, ensuring privacy and security. This is particularly important in microfinance, where borrowers may be hesitant to share sensitive information due to concerns about data breaches or misuse. Blockchain can enable secure and permissions access to personal data, empowering individuals while maintaining data integrity.

Challenges and Considerations:

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While the potential benefits of blockchain in microfinance are promising, there are several challenges and considerations that need to be addressed:

1. Scalability: Blockchain technology currently faces scalability issues, with limitations on the number of transactions that can be processed per second. This poses a challenge in microfinance, where high transaction volumes are common. Efforts are underway to develop scalable blockchain solutions, such as layer 2 protocols and off-chain transactions.
2. Regulatory Environment: The regulatory landscape surrounding blockchain and cryptocurrencies varies across different jurisdictions. Microfinance institutions need to navigate these regulations and ensure compliance while adopting blockchain technology. Collaboration between regulators, industry stakeholders, and technology providers is crucial to establish a supportive regulatory framework.
3. Infrastructure and Technical Expertise: Implementing blockchain technology requires robust infrastructure and technical expertise. Microfinance institutions may face challenges in terms of initial investment, system integration, and training staff to effectively utilize blockchain solutions. Collaborations with technology partners and capacity-building initiatives can help address these challenges.

Potential Impact:

The adoption of blockchain technology in microfinance has the potential to transform the industry by increasing transparency, efficiency, and financial inclusion. It can empower individuals and small businesses, particularly those in underserved areas, by providing access to affordable financial services. Blockchain can also enable microfinance institutions to streamline operations, reduce costs, and mitigate risks. Ultimately, the widespread adoption of blockchain in microfinance can contribute to poverty reduction, economic growth, and sustainable development.

Blockchain technology holds immense promise for the microfinance industry, offering solutions to the challenges faced by traditional systems. By enhancing transparency, improving access to financial services, and reducing operational costs, blockchain can revolutionize microfinance and contribute to financial inclusion. However, addressing scalability, regulatory, and infrastructure challenges is crucial for successful implementation. The potential impact of blockchain in microfinance is significant, and continuous research, collaboration, and innovation are essential to unlock its full potential and create a more inclusive and sustainable financial ecosystem

4. Social Impact Bonds (SIBs)

Social impact bonds (SIBs) are innovative financing mechanisms that originated in the United Kingdom in 2010. They aim to create better social outcomes while reducing public spending by enabling private investors to fund social programs that the government would typically finance. SIBs are contracts between investors, social service providers, and government agencies, where investors finance social programs that are delivered to the population in need. If the program outcomes meet the agreed-upon performance targets, the government repays the investors. If the program fails to achieve the targets, investors lose their investment.

The idea of SIBs in Microfinance emerged as an alternative way of financing microfinance programs and to expand their reach to more vulnerable populations. Microfinance institutions (MFIs) are known for their efforts to alleviate poverty through financial inclusion, but they often struggle to raise funds and scale their operations. The implementation of SIBs in Microfinance has helped MFIs to leverage private capital for their programs and create new partnerships with investors and service providers.

Several research studies have been conducted to analyze the impact of SIBs in Microfinance.

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A recent evaluation demonstrates the potential for SIBs to restrict program scope over time. An assessment of a homelessness SIB in the United Kingdom indicates that the program was generally delivering responsive services, even in cases in which participants were not likely to achieve outcomes.

Evaluators attribute this situation to the "ethos and history of the organization, and commitment and values delivery staff, Researchers caution that the buffering effect of the values embodied in some nonprofit organizations, however, could be reduced over time of these values lead to "adverse financial implications" and programs and organizations are judged as successes or failures on the basis of narrowly defined outcomes and investor payouts. [2] finally, the delivery of SIB-funded programs by private companies, a development suggested in the literature, could also eliminate this buffer [3].

These bonds are performance-based investments that pay out to investors based on specific social outcomes achieved. The great benefit of SIBs is that investors are motivated to fund projects with a high social impact, and this can drive MFIs to seek out innovative and impactful projects to take on.

The global social impact bond market surpassed $400 million in 2019, with over 140 social impact bonds implemented across 29 countries. The majority of SIBs have been implemented in the areas of employment, education and training, and homelessness and vulnerable populations (Social Finance, 2019), show in Fig.2

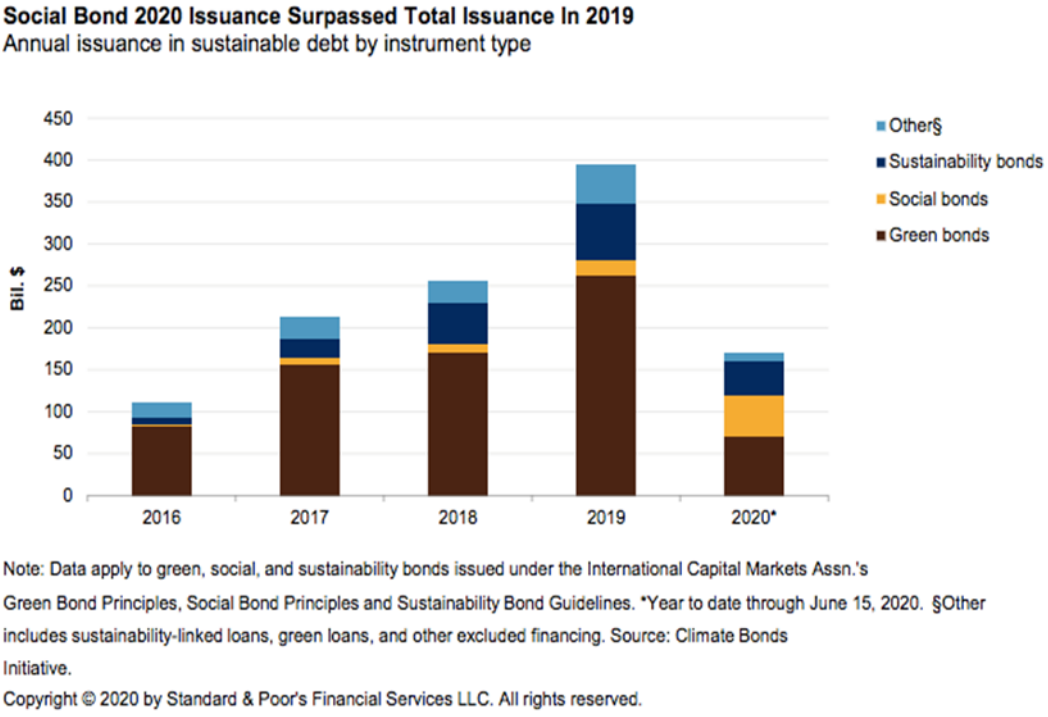

Figure 2: Social Bond 2020 Issuance Surpassed Total Issuance In 2019

5. Mobile Applications

Mobile applications have rapidly emerged to be powerful technology tools in the field of microfinance. Their adoption and integration have brought about innovations that have boosted microfinance operations in many regions.

mobile applications have positively impact microfinance in three ways:

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5.1. Customer acquisition and loan processing

Large majorities in all six sub- Saharan countries surveyed own mobile phones. Ownership is highest in South Africa, where about nine-in- ten adults own a mobile device, and lowest in Tanzania, where three- quarters own a phone.

Different studies indicate that the expansion of mobile phones and Internet use have the potential to promote financial inclusion (Andrianaivo & Kpodar, 2012; Chatterjee & Anand, 2017; Seng, 2017; Bongomin et al., 2018; Lenka & Barik, 2018, Chinoda & Kwenda, 2019) [4] which in turn will drive to the financial sector development (Rasheed et al., 2016; Anarfo et al., 2019) [5]

Internet and mobile phones have become useful tools for promoting financial inclusion but also for the development of the financial sector by reducing the costs of financial services, raising the efficiency and working flexibility of the financial institutions providing access to formal financial services reducing the information asymmetry through information sharing reducing income inequalities.

Andrianaivo and Kpodar (2012) conducted a study in African countries and found a positive and significant correlation between financial inclusion and mobile phone penetration rates. Using a panel dataset of 61 lower and middle-income countries Mushtaq and Bruneau (2019) reached a similar conclusion, that mobile phone penetration can promote financial inclusion.

5.2. Payments and saving services

Mobile applications have also provided a platform for microfinance institutions to provide payment and savings services to clients. Mobile payments enable clients to transact from anywhere at any time, bringing convenience and reducing the cost of transactions.

1. Number of clients and accounts: MFIs often report the number of clients and accounts they serve, demonstrating the scale of their operations. This statistic helps gauge their outreach and penetration within a targeted population or region.

2. Savings mobilization: MFIs track the amount of savings collected from their clients over a specific period. They report the total savings balances held by clients and may provide data on the average savings per client or account. This statistic showcases the financial resilience and accumulation capacity of the targeted individuals or communities.

3. Loan repayment rates: Microfinance institutions monitor loan repayment rates to assess the creditworthiness of clients and the overall financial health of the organization. They report on the percentage of loans repaid on time and may differentiate between different loan products or segments. This data demonstrates the effectiveness and sustainability of the microfinance services provided.

4. Financial inclusion indicators: MFIs often measure their contribution to financial inclusion by assessing the percentage of previously unbanked clients who now have access to formal financial services. Such indicators help evaluate the institution's role in addressing financial exclusion and promoting economic empowerment.

5. Impact metrics: MFIs may track various impact metrics to measure the effectiveness of their payments and saving services. These metrics can include poverty alleviation, improvement in household income, job creation, or improvement in housing conditions. Real statistics data in this area provides evidence of the social and economic benefits generated by microfinance interventions.

6. Gender segregation: Microfinance institutions may also present statistics on the gender distribution of clients accessing payments and saving services. This data highlights the organization's commitment to gender equality and inclusion and may provide insights into the significant role of women in financial inclusion.

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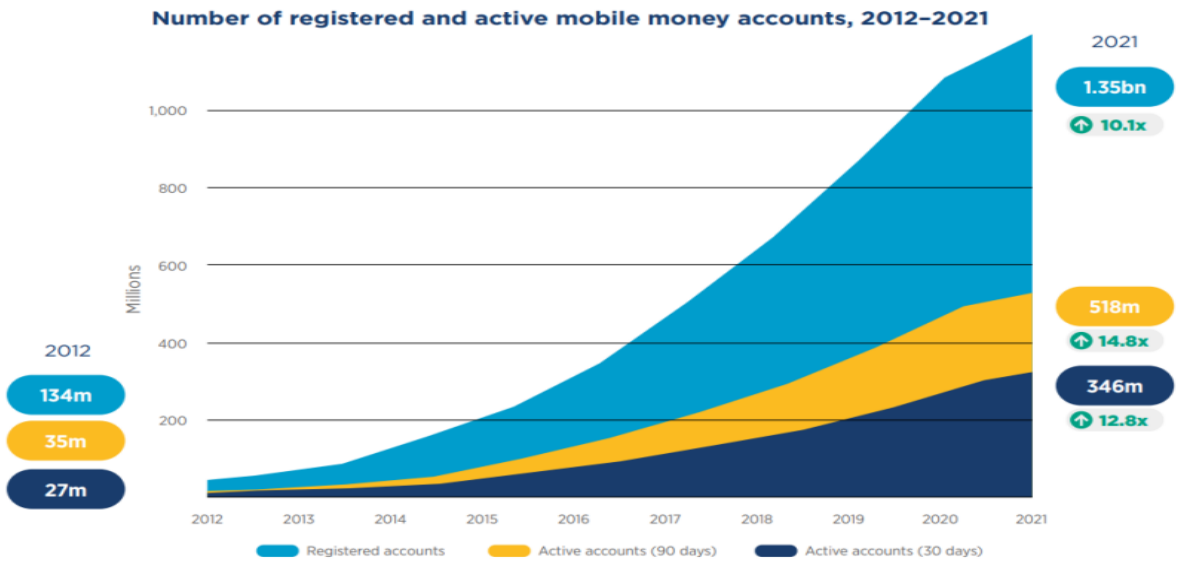

Figure 3: Number of registered and active mobile money accounts,2012-2021

5.3. Monitoring and Evaluation of client progress

Monitoring and Evaluation result communication according to Hardlife, & Zhou, (2013), is the justification for the cost of evaluation. It should be based on their‟ profitability to the intended users. Taut, (2007) states that the value of evaluation is in the utilization of its result, ` most of this spending has been in vain. The estimate from the last decade, indicates that privately, billions of shillings have been utilized on evaluations and yet Meta-evaluation has proved that, a third of them don‟t merit their investment and another third are of inconsistent quality (Hargreaves, and Bevery, 2009). Communication has been hindered since the results are not reliable, underscoring the purpose of evaluation. A study conducted by (Taut, 2007) [6]disclosed the existence of stunted institutional unwillingness to learn from evaluation owing to insufficient transparency and critical intra-organizational dialogue, formal frameworks and practices to encourage diverse views and learning as an organizational routine. She established that, organizational culture was monopolized by power wrestling among internal coalitions commencing from divergent Monitoring and Evaluation goals and agendas. This is the case with most MFIs in Kenya and is impacting negatively towards their performance.

The objectives of monitoring and evaluating are varied for various organizations that carry them out. Bilateral assistance organizations and development banks use M&E to measure the efficacy of development, be accountable to funders and stakeholders, and show transparency. While academics perform exhaustive research with the goal of generating information in order to influence governmental policy, they also conduct extensive monitoring and evaluation in order to increase the effectiveness and efficiency of programs. With a centralized control strategy, this should guide resource allocation (Huffman, Thomas, & Lawrenz, 2008)[7].

Mobile applications have provided a platform for microfinance institutions to monitor and evaluate client progress, making it easier to lend to clients based on their creditworthiness. The use of mobile applications has enabled institutions to collect data on client transactions, credit history, and other socio-economic factors that determine creditworthiness. This has led to the development of credit scoring models that have increased the accuracy of lending decisions, thereby reducing default rates. A study by MicroEnsure found out that the use of mobile applications in credit scoring led to a 25% reduction in default rates.

Supporting tools such as reminders, alerts can be programmed to get notified and make payments on delivery. Some mobile applications also offer financial education tools to help

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clients improve their financial literacy. In 2018, the total number of registered mobile money accounts reached 866 million, with 270 million of those accounts active in the preceding 90 days. This represents a significant increase in financial inclusion for underserved populations in developing countries, facilitated by microfinance innovation (GSMA, 2019)

6. Conclusion

Microfinance innovation has brought significant progress to the sector, enabling MFIs to reach the unbanked and underserved populations. The innovations discussed in this article represent only a few examples of the many possibilities microfinance innovation provides, as the sector continues to evolve. These innovations can help MFIs increase their efficiency, reduce their transaction costs, and improve transparency, ultimately enabling more people to access the financial services they need.

Microfinance innovation is a critical component of efforts to promote economic empowerment and reduce poverty. By leveraging a new technologies and business models, microfinance institutions can expend their reach and impact, and help individuals and communities to build better futures for themselves and their families. As the microfinance sector continues to evolve and innovate it will be essential to focus on.

Microfinance innovation is contributing to the growth of the microfinance industry, increasing access to financial services, improving efficiency, and reducing costs. The data highlights the impact that microfinance innovation is having on the industry, creating opportunities for alternative financing and investments that do not compromise social and environmental considerations.

Microfinance is an industry that is constantly evolving and innovating. The use of technology, peer-to-peer lending, new credit scoring models, and fintech solutions are all examples of how microfinance institutions are adapting to meet the needs of their clients. These innovations will continue to shape the future of microfinance and provide opportunities for people around the world to access the financial resources they need to succeed.

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