

Microfinance Innovations: A Tool for the Performance of Microfinance Institution in Buea Sub-Division, South West Region of Cameroon

Tenyiyim Everestus

PhD Student of Banking & Finance, Part-time Lecturer, University of Buea, Cameroon

Abstract: Microfinance Innovations are important for improving efficiency, scale and quality of financial services/products offer by Microfinance Institutions (MFIs) to low-income clients/ individuals or groups who otherwise would have no other access to financial services because they have little or no collateral or credit history. This study focuses on product innovation, process innovation, and institutional innovation which have eased business operations in financial institutions including MFIs. It is however not known whether these innovations have contributed to increase performance giving that performance of MFIs in Buea Sub-Division remains significantly low. The general objective of the study is to determine the effects of MFIs on the performance of microfinance institutions in Buea Sub-Division. The Specific objectives are to examine the effects of product innovation, process innovation and institutional innovation on the performance of MFIs in Buea Sub-Division. The study was guided by the theory of Financial Liberalization, theory of Induced Institutional innovation, Demand-Supply that established the relationship between microfinance innovations and performance. A total of 120 employees working with MFIs in Buea Sub-Division were purposively sampled with the use of structured questionnaire. After carrying out a descriptive analysis of the data, the Ordinary Least Square method was used to analyze the data. From the findings, it is evident that product innovation, process innovation and institutional innovation influence the performance of MFIs in Buea Sub-Division positively. This shows that an increase in a unit of product, process and institutional innovations will contribute to an increase in the performance of MFIs in Buea Sub-Division. These results were statistically significant at 1%, 5% and 10% respectively. This means that any effort to enhance Product, process and institutional innovations will lead to the performance of MFIs by the corresponding values of coefficients of the various constructs. The study recommended that in-order to enhance the performance of MFIs, the management of MFI ought to focus on product innovation (introduce new, improved and create unique products), process innovation (introduce articulated work designs, automated processes and advance software) and institutional innovation (introduce technology, partner with other financial institutions and renew its human resource management system for strategic partnerships) .This will positively improve the performance of MFIs in Buea Sub-Division.

Keywords: Innovation, Performance, Microfinance Institutions, Buea Sub-Division, process innovation, Product innovation, Institutional Innovation.

1. Introduction

For most firms, successful innovations are engines of growth and performance (Cohen, 1997). Innovation is described as the process by which, firms master and implement design, and the production of goods and services that are new to them regardless of whether they are new to their competitors, country or the world (Mytelka, 2000). Innovation is the continuous process of upgrading by employing new knowledge or the new combination of existing knowledge that is new to the local area (Spielman, 2005). The microfinance industry has every sign of an innovation in its take-off phase with Muhammed Yunus and the Grameen Bank of Bangladesh in the 1970s by granting microcredit, provision of small, unsecured loans to mostly women (who were generally excluded from formal financial services) for entrepreneurial development. These innovations however enabled the Microfinance Institutions (MFIs) to attain its dual mission of outreach and sustainability (welfarists & institutionalists). The characteristic aspects of microfinance innovations were developed in the 1970s and 1980s; thirty years later the industry experienced a phenomenal growth rate and the model gain popularity and has since been extended to low and high income countries. Banco Sol in Bolivia and Bank Rakyat in Indonesia are two examples of this. Practitioners of microfinance have referred to microfinance innovations as the last hope for the poor. By 2005, more than 67 million households were served by microfinance programmes (Armend & Morduch, 2005). Earlier in 2004, approximately 665 million client accounts, and serving clients poorer than those served by the commercial banks. The highest concentration was in India (188 million, representing 18% of the population) while the lowest were in Latin American and the Caribbean (14 million, representing 3% of the population) and Africa with 27 million, representing 4% of the population (Christen et al., 2004). Of these accounts, 120 million were with institutions normally understood to practice microfinance (Christen et al., 2004). Daley-Harris (2006) reports that, between December 1997 and December 2005, the number of microcredit institutions increased from 618 to 3,133 in developing nations. Similarly, the number of recipients (84% of whom are women) rose from 13.5 million to 113.3 million between 2012 to 2016 (Grameen Bank, 2017). Today, the microfinance industry is estimated at \$60 to \$100 billion globally, with an estimated 200 million clients, most of whom were not previously served by the formal financial sector (world Bank, 2022). To operate in line to its premises, MFIs have sought to innovations since it is the fundamental instruments of growth by entering into new markets, extending its services to the poor and needy, increasing the existing market share and providing the institution with a competitive edge. In addition, with increasing competition in global financial markets, MFIs have sought for more technologies in its processes so as to seek positive reputation in customer's perception (Kamal, 2016).

In Africa and specifically in Ghana, there has been significant introduction of an array of innovations in Ghanaians microfinance sector since 2010 (Dary, 2013). The innovations have been employed in varying degree and include product innovation, location innovation, marketing innovation as well as research and development innovation. By product innovation refers to loans and savings.

In Ethiopia, the microfinance sector is largely underdeveloped. Indeed, as at 2009 the continent had 27 million people who were being served by MFIs. This represented 4% of the Africa's population. Most of MFIs' borrowers were concentrated in Sub-Saharan Africa (Nugroho & Miles, 2009). In this light, therefore, there is need to reinforce the capacity of African Microfinance institutions (MFIs) through technological innovations and product refinements in order to minimize costs, increase outreach, and enhance overall profitability (Dary & Issahaku, 2013).

In Cameroon, the concept of innovation and performance lacks a lot of empirical literature with little or no information relating to this area of study. Messomo, (2018) carry out a study titled "Financial and

institutional innovations in microfinance institutions and commercial banks in Cameroon” with the objective to assess relationships explaining innovations between microfinance institutions (MFIs) and Commercial Banks (CBs) in Cameroon. This follows another study in 2017 titled “understanding microfinance institutions and commercial banks’ relationships and innovations in the Cameroon financial environment”. In both studies he brought out the various innovations and relationships created by these innovations but failed to show how they contributed to performance of MFIs. Poor performance of Microfinance in Cameroon is also associated with decision making and operational processes known by Wamba, Bengono & Teulon (2018) as governance issues. This is further compounded by the fact that the boundaries between microfinance and commercial banking activities are becoming blurred. With increase competition with commercial banks, MFIs become more profit orientated drifting away from its original mission. Formal microfinance activities can be traced back in 1963 following the creation of the first cooperative savings and loans institution at Njinikom, North West region of Cameroon by the Roman Catholic clergy (Fotabong, 2010). Until 1990s, the development of microfinance institutions in Cameroon was very weak until when the president passed a law N°. 09/053 of 19 December 1990 relating to freedom of association and law N°. 092/006 of 14th August 1992 relating to cooperatives, companies and common initiative groups were enacted. Banking crisis of the late 1980s is another contributing factor that led to the growth and development of microfinance in Cameroon. Some top executives who lost their jobs or dismissed during the crisis formed corporative credit unions that functioned like mini-banks. Others laws were passed in 2002 and the most 2019 (Law No. 2019/021 of 24 December 2019 to lay down certain rules relating to credit activity in the banking and microfinance sectors in Cameroon) in a bit to strengthen the sector.

2. Microfinance institutions in Cameroon and performance

In the Economic and Monetary Community of Central African States (CEMAC) region and Cameroon in particular, MFIs are regulated by three different laws including; the national law, the CEMAC law instituted through COBAC and the Pan African Organization for Harmonization of Business Law in Africa (OHADA). Each MFI is compelled to comply with these legal frameworks paying attention to the basic prudential norms as stated by COBAC. As microfinance activities gained heavy weight in the financial system of Cameroon, the roles of different stakeholders became clearly defined. At that time, the Ministry of finance took over control of the microfinance sector initially placed under the tutelage of the ministry of Agriculture. This led to a series of texts relating to sub regional integration, supervision and control of microfinance activities. CEMAC in 2005 adopted these texts on the new regulation on microfinance which became effective from April 14, 2005. These texts organize the sector into three categories. The first category (category one) includes institutions that collect savings and deposit and lend them to their members. They include Associations, Corporative and Credit Unions and there is no stipulated capital for this category but Banking Commission of Central African States (COBAC) text requires a capital sufficient to cover and meet up with stipulated prudential norms. Category two institutions collect savings and deposits and lend them to the third party. They include limited liability companies that function like micro banks. The minimum capital requirement for this category stands at 50millions as stipulated by the text and proof of this amount must be shown in the form of bank statement. And category three microfinance institutions are made up of lending institution that do not collect savings and deposits and they include micro credit and project financing institutions. The minimum capital requirement for this category is 25millions (CEMAC, 2015). By December 2010, categories one and two MIFs in Cameroon had deposits amounting to 300 billion and outstanding loans standing at 200 billion. It had a customer base of about 1.2 million clients. By 10th June 2011, out of the 480 approved MFIs, close to fifty were under liquidation, suspension of activities, adjustment and/or

temporal administration (Djamaman, 2012). MFIs of category 1 are grouped into networks unlike those of category 2. The microfinance sector in Cameroon employs over 6000 workers of which 732 senior staff and six principal approved networks namely, CAMCCUL (about 177 MFIs), CVECA (41MFIs), CMEC (27 MFIs) and MUCADEC (Djamaman, 2012). Other microfinance networks existing today include MUFID UNION network, RECCUCAM network, RAINBOW network and BINUM TONTINE network. There also exist independent MFIs that do not belong to any network. By December 2020, there existed 415 MFIs and by end of December 2021, the number had dropped to 402 (MINFI, 2023). MFIs occupied the leading position in terms of geographic coverage and market share in the banking sector of Cameroon and accounted for more than half of deposit and loans (MINFI, 2023)

It should be however noted that in 2017, a new regulation 01/17/CEMAC/UMAC/COBAC was passed for microfinance institutions operating within CEMAC Region. Announced by COBAC at the end of the seminar organized to present the regulation on June 28, 2018, Microfinance Institutions operating with CEMAC are expected to comply with the new regulation by January 2020. The regulation outlined stricter in terms of monitoring, management, minimum operating capital as well as the profile of management (law no 01/17/CEMAC/UMAC/COBAC of 2017). The governor of BEAC reminded that microfinance institutions play an important role in banking industry within CEMAC. He further revealed that this burgeoning activity needs to be structured for effective supervision. Experts however reviewed that many institutions will close their doors since not all the actors in the sector would be able to comply with the new regulations especially adventurers like the institution placed under provisional administration or institutions which closed their doors leaving customers in disarray.

Thanks to ongoing expansionary and aggressive market penetration measures and innovations adopted by major players such as CAMCCUL, and MC², growing customers and members confidence in these institutions. These innovations brought about increase performance as many of them witnessed a significant growth in terms of profits and return on investment Makia (2017). As result new branches were created, some upscale it services etc. increase performance was also noticed with major players such as MC² that launched more than eight new units that fully went operational, while Cameroon Corperative Credit Union League (CAMCCUL) registered more than 10 new units by the end December 2018. Growing partnership between commercial banks and microfinance institutions in Cameroon contributed greatly to the advancement of technological innovation in the microfinance institutions (Messomo, 2018). For example the distribution of electronic cards became increasingly noticeable between MFIs' customers in 2011 where major Commercial banks such as Afriland First Bank distribute electronic cards to MFIs clients through MC² their rural banking channel, while EB-ACCION the microfinance brand introduced by Ecobank in partnership with Accion International, distribute electronic cards to its customers with possibilities of their customers to withdraw cash using the card directly from the ATMs installed in the MFI or any of those ATMs at Ecobank branches in the country. This is also eminent at UNICS PLC where Union Bank in 2017 installed its ATM to provide services to its customers. This trend of innovation is expected to continue particularly as some major category two MFIs who are warming up to obtain license and operate as full flesh bank. Example is Credit Communautaire D'Afrique Centrale (CCA) that become a full flesh bank in January 2020.).

Despite these innovations as cited above, MFIs in Cameroon continue to witness low performance as profitability is generally low, due to poor quality of loan portfolios, lack of financial independence, unequal distribution of MFIs and its services over the national territory with high concentration in Yaoundé, Douala, Baffussam and Bamenda and Buea. This has caused some MFIs such as COFINEST SA and FCIC which were placed under liquidation in 2012 by COBAC after three years of provisional administration and FIFFA to finally shut their doors (Djamaman, 2012). Even after the new regulations, we continued to witness many MFIs closing their doors. This is the case with City Trust Credit Fund

(CITEF) in 2018 and CADECI in 2019. It's against this backdrop and low performance experience by microfinance institutions in Buea Sub-Division that this study was carried out to fill these gaps and examine how microfinance innovations can affect the performance of Microfinance Institutions in Buea sub-Division. Based on the above presentation, this paper seeks principally to Examine the effects of microfinance innovations on the performance of microfinance institutions in Buea Sub-Division, South West Region of Cameroon. In other words, what are the effects of microfinance innovations on the performance of microfinance institutions in Buea Sub-Division, South West Region of Cameroon? Specifically, the paper shall provide answers to the following research questions: What is the effect of product innovations on the performance of MIFIs in Buea- Sub-Division? How do process innovations affect the performance of MFIs in Buea- Sub-Division? And To what extent do institutional innovations affect the performance of MFIs in Buea- Sub-Division?. The rest of the paper is organised into four sections that includes: Section three looks at the conceptual, theoretical and empirical literature while section four deals with the methodology. Section five presents and discusses the findings and section six summarises the major findings and outlines some policy recommendations.

3. Literature Review

3.1 Conceptual Review

3.1.1 Conceptualization of microfinance innovation

The microfinance industry carries every sign of an innovation in its take-off phase. The various aspects of the microfinance innovation were developed in the 1980's, twenty years later the industry experiences a phenomenal growth rate, and it has diffused to most developing countries in the world. In 1999 Jonathan Morduch wrote "The promise of microfinance was founded on innovation: new management structures, new contracts, and new attitudes". He ends his survey calling for a second wave of innovation (Morduch, 1999). In his studies, he viewed the microfinance innovation as the discovery of a new market of poor people for financial services as well as new ways to address the financing needs in the new market.

Microfinance innovation started with the Nobel Peace Prize winner Mohammad Yunus, who started issuing small loans to poor women from his own pocket in 1976, together with his Grameen Bank in Bangladesh, the best known among the pioneers (Yunus, 1998). Others, however, preceded Mr Yunus, including a student organization in Brazil that later became Accion International (www.accion.org, 2020) and David Bussau and Al Whittaker who in 1971 started issuing small loans to generate jobs. Their initiative became Opportunity International, one of today's biggest international microfinance networks (www.opportunity.org, 2020). Few innovations, if any, come out of nothing. The new microfinance initiatives in the 1970s were born as a response to the frustrated development resulting from subsidized rural credit in the 1950s and 1960s. Over several years international donors and national governments invested billions of dollars in cheap credit to farmers. The results were disappointing. Corruption flourished, repayment of the loans was low and the overall development effect. A common denominator for the microfinance innovations is that they solve asymmetric information and cost problems associated with serving poor customers with little or no collateral. Thus, microfinance gives poor people and small businesses access to financial services. Most providers of microfinance have a double objective, to serve the poor and to do so in a financially sustainable way (Mersland & Strøm, 2010). Microfinance innovation today has taken a different dimension including Product Innovation, Process Innovation and Institutional innovation which this study adopted from the works of Schumpeter (1939), OECD Oslo manual (2005), Messomo (2018), Kibugo, (2016), Maina (2016).

Product innovation can be defined as the creation of a new product from new resources (totally new product) or the alteration of existing products to meet customer needs (improved version of existing

products). The introduction of new products/services creates new markets or customers, satisfy current markets and customers. Process innovation on its part is the process of reengineering and improving internal operation of business process (Cumming, 1998). This process involves many aspects of a firm's functions including: technical design, Research and Development (R&D), manufacturing, management and commercial activities. Process innovation is the implementation of a new or significantly improved production or delivery method (OECD, 2005). Institutional innovation relate to changes in MFI's structures, establishment of new types of financial intermediaries, and changes in the legal and supervisory framework and the application or changes in technology (Kibugo, & Maina, 2016). Institutional innovations refer to the creation of new organizations or the introduction of changes in the existing organizations.

Conceptual Framework Establishing the relationship between Microfinance Innovations and Performance of Microfinance Institutions

There is no consensus as to the set of indicators or measurement of innovation in MFIs. Like this study, many authors have caved out their own indicators of innovation based on their needs and purpose. For example Kamal (2016) measured microfinance funding innovation in terms of the different sources of funding and how they affect the performance of MFIs. Porter & Stern, (2001) measured innovation using the input approach and the output approach. The input approach looks at activities in the firm that stimulate or induce innovation. Such activities include level of education of workers, level of experience of workers among others. The output approach looks at the outcomes of innovation inputs as they relate to product, process, marketing, and organizational arrangements. Based on the output approach, the OECD's Oslo Manual (2005) has identified four main types of innovation: product innovation, process innovation, marketing innovation, and organizational innovation. Going by this perspective (OECD's Oslo Manual, 2005) this study sees innovation in the same line by adopting the output approach to innovation identifying product innovation, process innovation and institutional innovations as the main independent constructs of the study. This is because the MFIs have as responsibility to provide and offer better services to its target customers in a bit to alleviate poverty and enhance financial inclusion. Performance on the other hand is the dependent variable. Based on the lack of a unified way of measuring innovations in MFIs, this study, drawing on the above literature has developed a wide range of indicators to measure microfinance innovations and performance in MFIs in Buea Sub-Division.

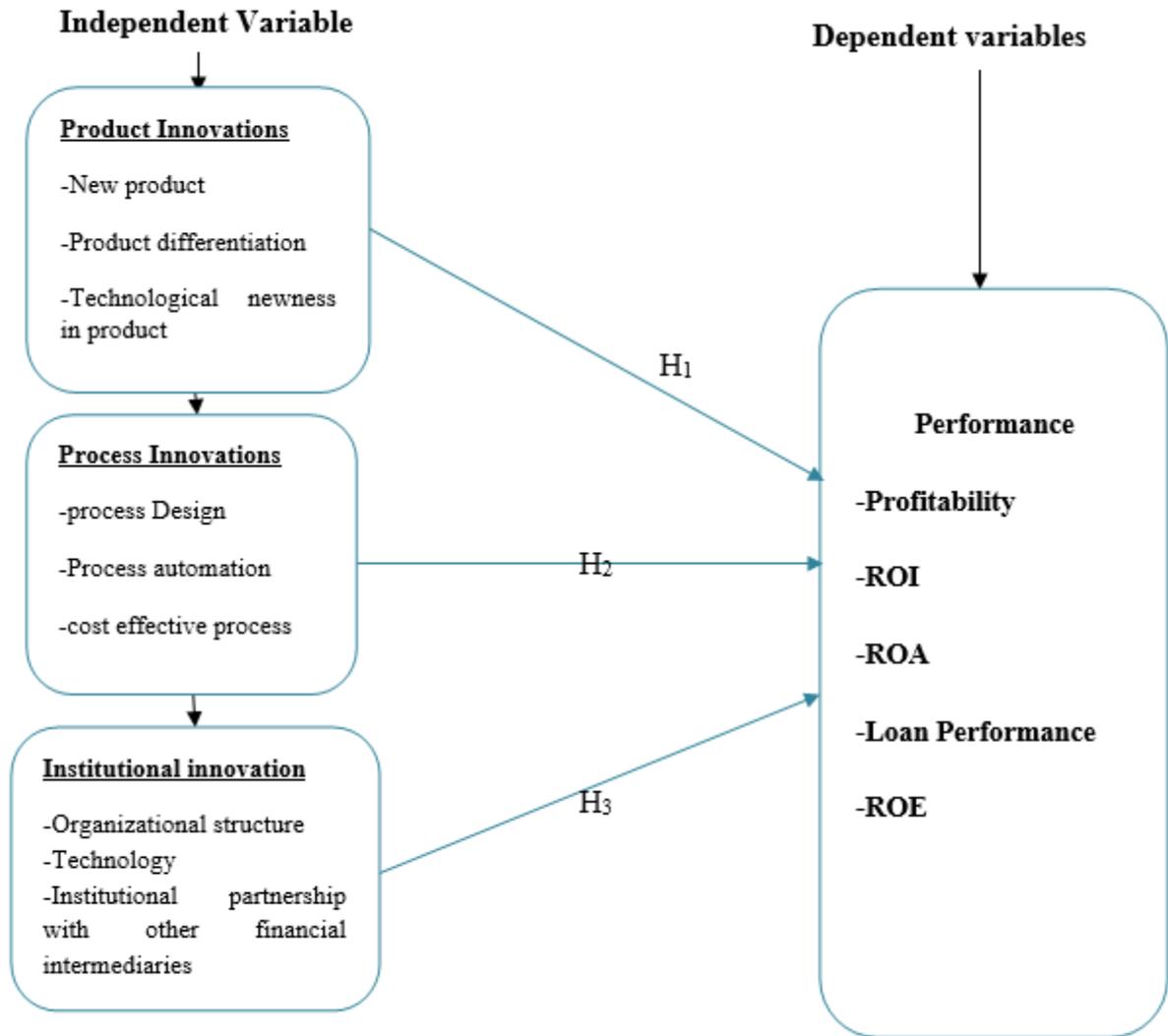


Figure 2.1: conceptual framework showing the effects of Microfinance Innovations and Performance of Microfinance Institutions

3.1.2. Performance of Microfinance Institutions

Outsiders normally evaluate a firm’s ability based on its performance (Bonn, 2000). This implies that performance is like a mirror to a firm. The level of goal accomplishment generally defines a firm’s performance. Firm performance is the outcomes achieved in meeting internal and external goals of a firm (Lin et al., 2008). As a multidimensional construct, performance has several names, including growth, survival, success and competitiveness. The concept of firm growth was introduced in the early 1930s known as the “Law of Proportionate Effect” (sometimes called Gibrat's rule of proportionate growth). The Law of Proportionate Effect is frequently used as a benchmark for many studies to determine business growth. Performance encompasses three specific areas of firm outcomes namely: financial performance (profits, return on assets, return on investment, etc); product market performance (sales, market share, etc); and shareholder return (total shareholder return, economic value added, etc). Organizations have an important role in our daily lives and therefore, successful organizations represent a key ingredient for developing nations. Many economists therefore consider organizations/institutions as engine in determining the economic, social and political progress raison d’etre their performance very imperative. Continuous performance is the focus of any organization

because only through performance organizations are able to grow and progress. Performance in this study is the results of a firm's policies and operations in monetary terms seen as a composite variable measure by Profitability, Return On Assets (ROA), Return On Investment (ROI), Return On Equity (ROE) and Loan Performance.

3.2 Theoretical Review

3.2.1 Financial Liberalization Theory

The theory of financial sector liberalization in the developing countries came to dominate financial policy discussion since the early 1970s due to two seminal contributions by McKinnon (1973) and Shaw (1973). The core of their hypothesis is that government intervention in the developing countries to control interest rates, put ceilings on lending rates, and ration credit to borrowers at below market clearing rate has repressed the development of the financial sector. Developing countries often pursued policies that kept interest rates artificially low, even negative in real terms, and in the process discouraged financial saving. This has hampered financial deepening, at times led to financial disintermediation. Financial liberalization means the removal of government ceilings on interest rates and of other controls of financial institutions. It is primarily concerned with macroeconomic aggregates, i.e., interest rates, savings and investment and conditions in formal financial institutions. Financial sector reform policies complement financial liberalization and include a broad range of measures aimed at improving the regulatory and supervisory environment in the financial sector and at the restructuring and development of financial sector institutions. Financial liberalization policies have been implemented in a wide range of developing countries since the 1970s, spanning Asia and Latin America and more recently in Sub-Saharan Africa.

This theory is relevant to this study in that it is widely believed that liberalizing financial markets would create an environment in which the financial intermediaries such as MFIs would offer better financial services to the poor. Liberalization of financial markets often influences current thinking on finance for the poor. Through the process of deregulation, financial liberalization should reduce entry barriers and stimulate the development of the financial sector and microfinance in particularly, increase competition in banking and leading to a diversification in financial institutions (Baden, 1996). It is therefore, believed that the poor will be able to have access to better financial services in an environment characterized by financial liberalization. Competition forces different financial institutions to adopt innovations by producing attractive financial products and services and also in lowering transaction costs (Vogel & Adams 1997). Financial sector liberalization is also intended to reduce financial resource misallocation and bring about financial development and hence accelerate and sustain economic growth. Financial liberalization should give the MFIs the ability to adopt innovative strategies and services that will boost the sustainability of the MFIs and social outreach performance of reaching the poor and the needy

Critics of this theory hold that in spite of predictions by financial liberalization theory, the poor are likely to remain underserved by the financial markets. There is growing evidence that even after liberalization, Commercial Banks in different countries have been slow to innovate in lending and have found themselves with excess liquidity. Rather than thrusting into new markets to serve the poor, such banks have tended to be passive even after liberalization. Commercial banks in Bangladesh retreated from providing financial services to the poor after liberalization leaving that part of the market to informal agents and NGOs (Yaqub, 1998). This means that contrary to the popular view, liberalization tends to exclude rather than include the poor into their financial services. Financial liberalization according to its proponents, it should bring about increased savings and investments through higher interest rates, as well as through a better allocation and poor productive use of resources.

3.2.2 Theory of Induced Institutional Innovation

The theory of induced institutional innovation was propounded by Vernon & Hayami (1984). The theory states that changes in the demand for institutional innovation are induced by changes in relative resource endowments and by technical change. Institutions are the rules of a society that facilitate coordination among people by helping them form expectations in which case each person can reasonably hold in dealing with others. Institutions provide assurance respecting the actions of others, and they give order and stability to expectations in the complex and uncertain world of economic relations (Olsen, 1982).

The model of induced institutional innovation maps the general equilibrium relationships among resource endowments, cultural endowments, technologies and institutions. The theory of induced institutional innovation can be used to explain institutional innovation in financial institutions. For there to be effective institutional innovations, financial institutions must have requisite resources particularly in terms of technical expertise and finances to enable them source the necessary technologies. The organizational culture must also be willing to embrace the innovations.

The theory is relevant because it sought to explain the fact that for MFIs to implement institutional innovations, it must hire qualified human resources who will be capable of implementing the innovation. This is very important for institutional innovation in terms of putting in place a good organizational structure, implementation of technology and institutional partnerships with other financial institutions.

3.2.3 Demand-Supply Theory of Innovation

The demand-supply theory of innovation was proposed by Tidd (2006). The theory states that the source of innovations can be analyzed from either the demand theory or by the supply theory of innovation. The demand theory holds that innovations are created as a response to demand of business firms that want to acquire competitive advantage in their business environment. This type of new developments is referred to as the demand-driven innovations. Yet, the foregoing can be influenced by either the internal needs of the business firm aiming at improvement in its activities or by the changes in its environment requiring proper adjustments in its business strategy (Blach, 2011).

The second approach emphasizes on the role of supply side, as innovations are firstly created by the innovation providers and then they are implemented in the business entities that happen to be the end-users of innovations. These are called supply-driven innovations and are achieved as a result of the process consisting of three phases. These phases include the creativity phase otherwise called invention, innovation phase, and the diffusion phase which is realized by commercialization or diffusion of the innovative solutions (Stradomski, 2006). The demand-supply theory can be used to explain innovations in general and product innovations in particular. Firms, based on competition, can ignite demand for certain products or services. In the financial sector, competition is stiff, and firms seek to outdo each other in coming up with innovations that can address the issue of demand and supply relative to the market.

This theory is relevant to this study in that MFIs in Buea Sub-division are faced with stiff competition from commercial banks. As a result, there is a need for innovations in terms of product, process and institutional that will help them mitigate these challenges in the competitive financial market. Furthermore, from the supply side of the innovation, implemented by the MIFs will benefit the MFIs themselves and the end users (customers) thus achieving its dual missions of social outreach and sustainability. This goes in line with the stakeholder theory of Freeman (1984)

3.3 Empirical Literature

Kimotho & Muturi (2019) carried out a study on the effects of innovations on the Performance of Microfinance Institutions in Kenya. The study sought to determine the effects of product and process innovations on performance of MFIs. Data was collected from 14 MFIs using questionnaires. The study found that product innovation and process innovation had a positive effect on performance.

Messomo, (2018) carry out another study titled “Financial and institutional innovations in microfinance institutions and commercial banks in Cameroon” with the objective to assess relationships explaining innovations between microfinance institutions (MFIs) and commercial banks (CBs) in Cameroon. The study employs an explanatory approach and mobilizing literature from the Pavitt (1984) model and Disruption Innovation and Dynamic Market Models of Christensen (2006), a documentary collection of data was undertaken. The results revealed that the financial innovations, more than institutional innovations, are affected by relationships between CBs and MFIs. In addition, competitive variables in terms of loans to households and enterprises by MFIs as well as by CBs dominate changes in these innovations than partnership variables.

Nataya & Sutanto (2018) carried out a study with the purpose to examine the effects of product innovation on performance, case study on plastic producer. The study use a quantitative approach with Partial Least Square (PLS) analysis using the SmartPLS 3.0 with 76 samples respondents as representing each plastic producer. results showed that product innovation had a significant effect on performance, the study also show that product innovation had an effect on marketing performance. Companies that combine product innovation and service innovation together will gain greater revenue growth and profitability.

Kibugo & Maina (2016) did a study on effect of financial innovations on Performance of Microfinance Institutions in Nakuru Town, Kenya. While defining financial innovations to include institutional innovation, product innovation, and process innovation, they asserted that these innovations have eased the way of doing business for financial institutions including microfinance institutions. The study use descriptive survey research design and the target population comprised of all employees working with MFIs registered with AMF-Kenya. Samples of 70 respondents were drawn from the study population using stratified random sampling technique. Using the Statistical Package for Social Sciences to analyze data, both descriptive and inferential results shows that financial innovation significantly affects the performance of MFIs.

Lin & Chen (2016) observe that there is a relationship between innovation and performance. The study sought to determine whether innovation results to performance in Taiwanese enterprises. They establish that organizational innovations enhance sales in the enterprises. The foregoing was echoed by Noruzi, Dalfard, Azhdari, Nazari-Shirkouhi and Rezazadeh (2013) who established that organizational innovation positively enhance business performance when they examined organizational innovation, transformational leadership, knowledge management, organizational learning and organizational performance in Malaysian companies.

Boachie-Mensahand (2015) notes that innovation in general accounts for over fifty percent of the variation in firm performance. Specifically, the study establishes that organizational innovation or institutional innovation among various types of innovation significantly and positively influences firm performance. It is observed that to further enhance firm performance management ought to focus on the firm activities aligned towards renewing routines, procedures and processes in an innovative manner in a firm.

Kamakia (2014) carried out a study on effect of product innovation on performance of commercial banks in Kenya as main objective. The study adopted a cross-sectional survey design approach with the

population of the study comprising of (43) forty-three commercial banks licensed by the Central Bank of Kenya as at 31st July 2014. Using descriptive statistics to analyse the data, results indicated that product innovation affects organization's performance. The study concluded that product innovation impacts on customer satisfaction and that the reputation in the market makes the bank stand out.

Ferreira & Fernandes, 2014) carry out a study aims to analyse innovation and its effects on the performance. This study was based upon a sample of companies, located in two neighboring countries (Portugal and Spain). Linear regression was the methodology deployed to analyze the importance of innovation types (differences between Portugal and Spain). In order to assess the extent to which the innovation capacity variables influence financial performance (turnover), they made recourse to Probit Regression models. Results of their findings show that innovations in processes are significant on performance in both sets of Iberian companies (Portuguese and Spanish firms). The study equally reviewed product innovation is positively significant to performance and recommended and more focus on product innovation.

Makur (2014) carry out a study with the purpose to assess the effect of financial innovation on commercial bank's financial performance over a period of 5 years in South Sudan. The study used a casual research methodology and studied 16 commercial Banks registered with the central bank of South Sudan for January 2009- December 2013. The findings indicate that return on asset (ROA) recorded a mean of 3.2534 with standard deviation of 1.2548. The average number of daily transactions using ATM for the commercial banks during the study period was 156,547 with standard deviation of 20,51. It was clear that adoption of financial innovation resulted in strong financial results of commercial banks in South Sudan.

Rosli & Sidek (2013) carried out a study on the Impact of Innovation on the Performance of Small and Medium Manufacturing Enterprises: Evidence from Malaysia. A total of 284 samples were collected from SMEs in the food and beverage, textiles and clothing and wood-based sub-industries throughout Malaysia. The data were analyzed using a hierarchical regression analysis. The findings confirmed the hypotheses that product innovation and process innovation influenced firm performance significantly, where the impact of the former was stronger than the latter. The findings also inform SMEs and policy makers that innovation is a critical factor in today's entrepreneurial activities.

4. Data and Methodology

4.1 Scope and Area of Study

Geographically, the study is limited to regulated MFIs in Cameroon, specifically selected savings and loans co-operatives of both categories 1 and 2 in Buea Sub-Division of the south west region of Cameroon. It focused on deposit taking microfinance institutions, microfinance operations regarding innovations in terms of product, process and institutional innovations and how they affect the performance. The Fako chapter of Credit Unions consist of 23 Savings and loans Corporative credit unions all affiliated to the umbrella organ CAMCCUL (Leku, 2012).these are category 1 MFIs. In Buea Sub-division, we have 16category one MFIs all of which are affiliated to the CAMCCUL network. While some are very new in the market, some have been in existence for over fifty years. There are equally 11 category 2 and no category 3 MFIs in Buea Sub-division.

This research work used a cross-sectional descriptive case study research design which collected data at MFIs in Buea Sub- Division only within a particular time. The study took the form of a survey where a group of people is studied by collecting and analyzing data from only a few considered to be representatives of the entire population under study (Nworgu, 1991). This implies that research is carried out on part of the population and the results are a representation of the entire population. The study adopted both quantitative and qualitative approaches. Descriptive survey approach and the

correlation approach enabled the researcher to present the effect of each variable on the performance of microfinance institutions.

Table 4.1: Sample size determination

Type of Microfinance	Name of Institution	Sample size	Number Retained
Category One	M’muock Corporative Credit Union	5	5
	Ntarikon Corporative Credit Union	12	10
	METAYEN	13	12
	Buea Police Credit Union	10	8
	P&T Credit Union	8	8
	Tugih Cooperative Credit Union	2	2
	Shishong Cooperative Credit Union	4	3
	Awing Cooperative Credit Union	3	3
Category Two	Community Credit Company	13	12
	UNICS Plc	10	10
	FIRST TRUST	15	6
	RENAPROV	15	9
	Credit Mutuel	5	3
Total	13	120	91

Source: Field data; (2023)

Purposive sampling was used to choose the sampling size for this study. The target population was employees of MFIs in Buea Sub-Division where 120 employees were sampled using the purposive sampling technique because not all the workers of the microfinance institutions in Buea were qualified to respond to the questionnaires nor had knowledge on the subject matter. The researcher therefore used his sound judgment to select the employees of MFIs in Buea Sub-division who were qualified to respond to the questionnaires. 91 responses were retained.

4.2 Methods of Data Analysis

4.2.1 Model Specification

Mathematical models were developed that relate the dependent variable to the independent variables. In the first model, performance is the dependent variable influenced by variables of product innovation that include: 1-Introduction of new product, 2-Technological newness in product(improved product), and 3-Product differentiation (INEP,IMP, PRD). In the second model, performance is a dependent variable and influenced by variables of process innovation which are: 1. Process design, 2.process automation and 3.cost effective process (PRD, PROAUTO,COEPR). And in the third model, performance remains a dependent variable and influenced by measures of institutional innovation such as: 1.the organizational structure, 2.technology and 3. Institutional partnership with other financial intermediaries, (ORGS, TECH, IPAFI). The three models were developed to meet the objectives and the hypotheses of the study. The following models were specified:

In model one, Performance of MFIs depends on product innovations specified as follows:

Model one: Product innovation

$$Y_i = \beta_0 + \beta_1 INEP_i + \beta_2 IMP_i + \beta_3 PRD_i + \mu_i$$

Where:

Y= the dependent variable- Performance of MFIs

β_0 , =constant term

$\beta_1, \beta_2, \beta_3$, = the parameters which are expected to be estimated and are the coefficient of the various variables.

The subscripts i= cross section data

(INEP, IMP, PRD)= the independent variables

INEP_i = Introduction of new product

IMP_i = Technological newness in product (improved product)

PRD_i = product differentiation μ = stochastic error term.

Economic value added theory and Empirical studies on product innovation and performance of MFIs reviewed the following apriori expectations of this model; $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0$,

Model two: Process innovation

$$Y_i = \beta_0 + \beta_1 \text{PROD}_i + \beta_2 \text{PROAUTO}_i + \beta_3 \text{COEPRO}_i + \mu_i$$

Where:

Y= the dependent variable- Performance of MFIs

β_0 , =constant term

$\beta_1, \beta_2, \beta_3$, = the parameters which are expected to be estimated and are the coefficient of the various variables.

The subscripts i= cross section data

(PRD, PROAUTO, COEPR)= the independent variables.

PROD_i = Process design,

PROAUTO_i = process automation

COEPRO_i = cost effective process,

μ = stochastic error term.

The Apriori expectations of this model were develop from the demand-Supply theory as well as empirical studies relating to process innovation and performance; $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0$,

Model three: Institutional Innovation

$$Y_i = \beta_0 + \beta_1 \text{ORGS}_i + \beta_2 \text{TECH}_i + \beta_3 \text{IPAFI}_i + \mu_i$$

Where:

Y= the dependent variable- Performance of MFIs

β_0 , =constant term

$\beta_1, \beta_2, \beta_3$, = the parameters which are expected to be estimated and are the coefficient of the various variables.

The subscripts i= cross section data

(ORGS, TECH, IPAFI)= the independent variables.

ORGS_i = Organizational structure.

ITECH_i = Technology

IPAFI_i = Institutional partnership with other financial intermediaries

μ = stochastic error term.

5. Presentation and Discussion of findings

The sample frame of the study comprised of 120 employees who were sampled from (13) thirteen microfinance institutions belonging to both category one and two that made up the target population of the study. There were 08 category one and 05 category two MFIs. One hundred and twenty questionnaires were distributed to branch managers (where it is a branch) and to the general managers (where it is the head office) and other staff of the microfinance institutions in Buea Sub-Division. However, only 91 were completed and returned, representing a 75.83% response rate which was good enough considering the difficulties involved in making a follow up of questionnaires. This was critical as a good level of response rate strengthens the validity of the study. According to Bryman & Bell (2007), a response rate of 50% is acceptable to analyze and publish, 60% is good and 70% is very good. The overall 75.85% response rate achieved for this study was therefore very good. Bruce, (1999) stresses that response rate is one of the most critical factors used to determine study quality and adds that a response rate of 75% is appropriate. Out of 91 questionnaires that were completed and returned, 39 of the respondents were of category 1 microfinance institutions and 52 of the respondents were from category 2 microfinance institutions.

Table 5.1. Summary statistics of Microfinance Innovations and performance of MFIs

Variables	Observations	mean	Standard Deviation	Minimum	maximum
Performance	91	3.393	.529	2.333	4.333
INEP	91	4.103	.721	1.333	5
IMP	91	4.007	.604	2	5
PRD	91	4	1.173	2	9.333
PROD	91	3.842	0.629	1.333	4.333
PROAUTO	91	3.934	0.631	1.666	5
COEPRO	91	3.249	0.508	2.333	5
ORGS	91	3.996	0.408	2.666	4.667
TECH	91	3.941	0.691	2	5
IPAFI	91	3.721	0.654	2	5

Source: Computed from Field data (2023)

According to the findings in table 5.1, the respondents indicated with a mean of 4.103 that MFIs develop new products quite regularly to meet the demands of their customers and increase the size of the market. The respondents further indicated with a mean of 4.007 that MFIs offer improved products with technological specifications to improve customers satisfaction. Also, they indicated with a mean of 4.000 that the products offered by MFIs in the last three years are highly differentiated and each new product is unique.

The opinions of the respondents with respect to process innovations on performance of microfinance institutions reviewed with a mean of 3.842 that MFIs have a well-articulated process design, has renewed procedures and processes and has adopted innovative work design within the last 3years. They also indicated with a mean of 3.934 that MFIs have automated its processes to reduce transaction cost, cost effective in operations and a fall in cost component. They further indicated with a mean of 3.249

that MFIs have adopted a cost effective process of operations by hiring advanced automated software to automate their service delivery and decreasing delivery speed.

The respondents were asked to indicate to what extent were the following institutional innovations implemented in the MFIs in the last three years. They included ORGS, TECH and IPAFI. According to the findings, the respondents agreed with a mean of 3.996 that MFIs have a clear business structure to facilitate team work and coordination between different functions. They also indicated with a mean of 3.941 that MFIs have adopted advanced technologies for its product delivery and management of information systems and sharing. They further indicated with a 3.722 that MFIs have partnered with other financial intermediaries and has renewed the human resource and the organizational structure for such strategic partnership.

Lastly, findings were done aimed at getting the respondents' perception and their level of agreement or disagreement with respect to performance of Microfinance Institutions as shown on the statistics in table 4.15 above. According to the findings, the respondents indicated with a mean of 3.393 that MFIs enjoys high profits, that MFIs have recorded increased return on assets over the past three years, that MFIs have advanced more cumulative loans over the last three years compared to previous years, that MFIs have continued to record decreasing non-performing loans, that MFIs enjoy high return on investment and finally that MFIs realize high return on equity.

5.1. Ordinary Least Squares Results

5.1.1 Pair-wise Correlation Results for model 1

Table 4.19 below shows the Pair-wise correlation results between the sub-variables of the product innovation and the performance of MFIs.

Table 5.2: Pair-wise correlation results for model 1

	Performance	INEP	IMP	PRD
Performance	1			
INEP	0.464	1		
IMP	0.329	0.675	1	
PRD	0.199	0.154	0.118	1

Source: Computed from Field data, 2023

It is evident from pair-wise correlation results in the table 5.2 above that there exist a positive relationship between INEP, IMP and PRD and performance of MFIs in Buea Sub-Division. In other words, performance of MFI is positively correlated with product innovations (INEP, IMP & PRD). This implies that the increase in the level of INEP, IMP and PRD (product innovations) will lead to an increase the performance of microfinance institutions in Buea sub-division. The relationship is however stronger between INEP and IMP than PRD.

5.1.2 Regression Results for model 1

In model 1, performance is the dependent variable influenced by sub-variables of product innovations that include: 1-Introduction of new product, 2-Technological newness in product(improved product), and 3-Product differentiation (INEP,IMP, PRD) As seen in the table below.

Table 5.3: Regression Results model 1

Independent Variables	Coefficient. (Standard Error)
Introduction of New Product (INEP)	.303716 *** (.0922715)
Improved Product (IMP)	.0980313 (.1157298)
Product Differentiation (PRD)	.051439 (.1056758)
Constant	1.663937 *** (.3630556)
Adj R-square	0.2333
Breusch-Pagan Test (p-value)	(0.2202)
P-value for F-statistics	0.0000

Standard errors in parenthesis. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

Source: Computed from Field data (2023)

The coefficient of INEP is positive which is in accordance with the a priori expectation. This means that introduction of a new product will lead to an increase in the performance of MFIs in Buea Sub-Division, all things being equal. Specifically, the coefficient of INEP is 0.304 meaning that performance will increase by 0.304 units if INEP is introduced. The p-value of INEP is 0.001 which is significant at 1% level. This means that INEP has a significant effect on the Performance of MFIs in Buea Sub-Division.

Secondly, the coefficient of IMP is positive which is in accordance with the a priori expectation. This means that an improved product or technological newness in product will lead to an increase in the performance of MFIs in Buea Sub-Division, ceteris-paribus. Specifically, the coefficient of IMP is 0.098 meaning that performance will increase by 0.098 units if IMP is introduced. The p-value of IMP is 0.399 which is not statistically significant at 1%, 5% and 10% level. This means that IMP does not have a significant effect on the Performance of MFIs in Buea Sub-Division.

And lastly the coefficient of PRD is positive which is in accordance with the a priori expectation. This means that where there is product differentiation, this will lead to an increase in the performance of MFIs in Buea Sub-Division, all things being equal. Specifically, the coefficient of PRD is 0.051 meaning that performance will increase by 0.051 units if PRD is introduced. It is however seen that the p-value of PRD is 0.227 which is not statistically significant at 1%, 5% and 10% level respectively. This means that PRD does not have a significant effect on the Performance of MFIs in Buea Sub-Division.

The adjusted R-squared shown on table 5.3 above is 0.23. This means that 23% of the variations in the performance of MFIs in Buea Sub-Division are explained by the introduction of new product, technological newness in product or improved product and product differentiation with 77% explained by the error term (other variables).

The p-value of Breusch-Pagan heteroskedasticity test is 0.22 which is insignificant. The null hypothesis that heteroskedasticity is absent in model one is accepted.

5.1.3. Pair-wise Correlation Results for model 2

In model 2, performance is the dependent variable influenced by sub-variables of process innovations that include: 1-Process design (PROD), 2-Process Automation (PROAUTO), and 3-Cost effective process (COEPRO). The Pair-wise correlation was as follows.

Table 5.4: Pair-wise correlation results for model 2

	Performance	PROD	PROAUTO	COEPRO
Performance	1			
PROD	0.364	1		
PROAUTO	0.328	0.525	1	
COEPRO	0.199	0.145	0.116	1

Source Computed from Field data (2023)

Findings from the pair-wise correlation results in the table 5.4 above shows that there exist a positive relationship between PROD, PROAUTO & COEPRO and the performance of MFIs in Buea Sub-Division. In other words, performance of MFI is positively correlated with process innovations (PROD, PROAUTO & COEPRO). This implies that the higher the level of PROD, PROAUTO & COEPRO (process innovations), the higher will be the performance of microfinance institutions in Buea sub-division. The relationship is however stronger between PROD and PROAUTO than COEPRO which shows and weaker positive relationship.

5.1.4 Regression Results for model 2

Table 5.5: Regression Results for model 2

Independent Variables (Standard Error)	Coefficient.
Product Design	.3405776*** (.086311)
Process Automation	.1870243** (.0854078)
Cost Effective Process	.166843 (.1004282)
Constant	.9794004** (.4236492)
Adj R-square	0.2766
Breusch-Pagan Test (p-value)	(0.7813)
P-value for F-statistics	0.0000

Standard errors in parenthesis. ***p<0.01; **p<0.05; *p<0.10

Source: Computed from Field data (2023)

Going by table 5.5 above, the coefficient of PROD is positive which is in accordance with the a priori expectation. This means that introduction of product design will lead to an increase in the performance of MFIs in Buea Sub-Division, all things being equal. Specifically, the coefficient of PROD is 0.341 meaning that performance will increase by 0.341 units if PROD is introduced. The p-value of PROD is 0.000 which is significant at 1% level. This means that PROD has a significant effect on the Performance of MFIs in Buea Sub-Division.

Secondly, the coefficient of PROAUTO is positive which is in accordance with the a priori expectation. This means that an introduction of process automation will lead to an increase in the performance of MFIs in Buea municipality, ceteris-paribus. Specifically, the coefficient of PROAUTO is 0.187 meaning that performance will increase by 0.187 units if PROAUTO is introduced. The p-value of PROAUTO is 0.031 which is statistically significant at 5% level. This means that PROAUTO has a significant effect on the Performance of MFIs in Buea Municipality.

And lastly the coefficient of COEPRO is positive which is in accordance with the a priori expectation. This means that where there is implementation of cost effective process, this will lead to an increase in the performance of MFIs in Buea Sub-Division, all things being equal. Specifically, the coefficient of COEPRO is 0.167 meaning that performance will increase by 0.167 units if COEPRO is introduced. It is however seen that the p-value of COEPRO is 0.100 which is not statistically significant at 1%, 5% and 10% level respectively. This means that COEPRO does not have a significant effect on the Performance of MFIs in Buea Municipality.

The adjusted R-squared shown on table 5.5 above is 0.27. This means that 27% of the variations in the performance of MFIs in Buea Sub-Division are explained by process design, process automation and cost effective process with 73% explained by the stochastic error term (other variables).

The p-value of Breusch-Pagan heteroskedasticity test is 0.78 which is insignificant. The null hypothesis that heteroskedasticity is absent in model two is accepted.

5.1.5 Pair-wise Correlation Results for model 3

In model 3, performance is the dependent variable influenced by 1-Organistical Structure (ORGS), 2-Technology (TECH), and 3-Institutional Partnership with other Financial Intermediaries (IPAFI).the pair-wise correlation results were as follows:

Table 5.6: Pair-wise correlation results model 3

	Performance	ORGS	TECH	IPAFI
Performance	1			
ORGS	0.373	1		
TECH	0.539	0.791	1	
IPAFI	0.417	0.199	0.447	1

Source: Computed from Field data (2023)

A pair-wise correlation result was generated to establish the relationship between the variables. As shown on the Pair-wise correlation results table above, it is evident that there exist a positive and relationship between ORGS, TECH & IPAFI and performance of MFIs in Buea Sub-Division. This means that performance of MFI is positively correlated with ORGS, TECH & IPAFI implying that an increase in the level of ORGS, TECH & IPAFI, will lead to an increase in the performance of microfinance institutions in Buea sub-division. There is however a weak positive correlation between ORGS and the performance of MFI.

5.6 Regression Results for model 3

Table 5.7: Regression Results for model 3

Independent Variables	Coefficient (Standard Error)
Organizational Structure	-.2365474 (.1830593)
Technology	.5302468*** (.1217623)
Institutional Partnerships with other financial intermediaries	.2014996 ** (.0765801)
Constant	1.704246*** (.518254)
Adj R-square	0.4104
Breusch-Pagan Test (p-value)	(0.5033)
P-value for F-statistics	0.0000

Standard errors in parenthesis. ***p<0.01; **p<0.05; *p<0.10

Source: Computed from field data (2023)

The coefficient of ORGS is Negative which is in contrary with the a priori expectation. This means that a change in the organizational structure will lead to a decrease in the performance of MFIs in Buea Sub-Division, all things being equal. Specifically, the coefficient of ORGS is -0.237 meaning that performance will decrease by -0.237 units if ORGS changes. The p-value of ORGS is 0.200 which is insignificant at 5% level. This means that changes in ORGS has an insignificant effect on the Performance of MFIs in Buea Sub-Division.

Secondly, the coefficient of TECH is positive which is in accordance with the a priori expectation. This means that an introduction of advanced technology will lead to an increase in the performance of MFIs in Buea municipality, ceteris-paribus. Specifically, the coefficient of TECH is 0.530 meaning that performance will increase by 0.530 units if TECH is introduced. The p-value of TECH is 0.000 which is statistically significant at 1% level. This means that introduction of advanced technology has a significant effect on the Performance of MFIs in Buea Municipality.

And lastly the coefficient of IPAFI is positive which is in accordance with the a priori expectation. This means that where there is institutional partnership with other financial intermediaries, this will lead to an increase in the performance of MFIs in Buea Sub-Division, all things being equal. Specifically, the coefficient of IPAFI is 0.201 meaning that performance will increase by 0.201 units if IPAFI takes place. It is however seen that the p-value of IPAFI is 0.010 which is not statistically significant at 1%, 5% and 10% level respectively. This means that IPAFI does not have a significant effect on the Performance of MFIs in Buea Municipality.

The adjusted R-squared shown on table 5.7 above is 0.41. This means that 41% of the variations in the performance of MFIs in Buea Sub-Division are explained by changes in organizational structure,

implementation of advanced technology, and institutional partnership with other financial intermediaries with 59% explained by the stochastic error term (other variables).

The p-value of Breusch-Pagan heteroskedasticity test is 0.50 which is insignificant. This implies that the null hypothesis that heteroskedasticity is absent in model three is accepted.

5.2 Discussion of Results

The first objective of the study was to investigate the extent to which product innovations affect the performance of MFIs. Model 1 was formulated where product innovations were measured by Introduction of New Product (INEP), Technological Newness in product or Improved Product (IMP) and Product Differentiation (PRD) which were the independent variables and the dependent variable was Performance of MFIs. Results from the regression analysis for model 1 show that, there is a positive relationship between product innovations and performance of microfinance institutions in Buea Sub-Division. Product innovations explain 23.33% of the variance in performance of MFIs. Product innovations have significant effects on the performance of MFIs in Buea Sub-Division. This means that any effort to enhance product innovations will significantly lead to improvement in the performance of MFIs by the corresponding values of the coefficients. In other words, an implementation of product innovations via the introduction of new products, technological newness or improved products and product differentiation will contribute to increase in performance. These relationships are however statistically significant with Introduction of New Product (INEP) at*** and are not statistically significant with Technological Newness or improved Product (IMP) and Product Differentiation (PRD) respectively. Base on the values of the coefficients of the elements of product innovations and the overall p-value for F-statistics which is significant at***, it can be stated that product innovations have a positive relationship with the performance of MFIs in Buea Sub-Division thus rejecting the null hypothesis which states that product innovations have no significant effect on the performance of MFIs in Buea Sub-Division. This is in line with the Breusch-Pagan heteroskedasticity p-value which is insignificant implying that the null hypothesis that heteroskedasticity is absent in model two is accepted Empirically these results are in consonance with the findings of Rosli and Sidek (2013), Kamakia (2014) and Nataya & Sutanto (2018) observations that product innovations indeed significantly influences firm's performance. The results are however different from that of the studies listed above in that none of the studies focus on MFI. This is seen in the fact that Nataya & Sutanto (2018) and Rosli and Sidek (2013) focused on a manufacturing firm and not in a service industry as our case maybe while Kamakia (2014) focused on commercial banks. The results of this study pose a limitation to the fact that only 23% of the variations in the performance of MFIs in Buea Sub-Division are explained by the introduction of new product, technological newness in product or improved product and product differentiation with 77% explained by the error term (other variables). The results however, are consistent with the Economic Value added theory by Stewart (1982) and the demand-supply theory by Tidd (2006) which holds that innovations are created as a response to demand of business firms that want to acquire competitive advantage in their business environment.

The second objective was to determine the effect of process innovations on the performance of MFIs. Model 2 was formulated where process innovations explains 27.6%% of the variance in performance of MFIs. Findings from the regression analysis indicated that there is a positive relationship between process innovations (Process Design-PROD, Process Automation-PROAUTO, and Cost Effective Process-COEPRO) and the performance of MFIs in Buea Sub-Division explain by values of the coefficients. This means that any effort to enhance Process Design (PROD), Process Automation (PROAUTO) and Cost Effective Process (COEPRO) will significantly lead to improvement of performance of MFIs by the corresponding values of the coefficients indicated in table 4.19 above. These relationships are however statistically significant with PROD at *** and PROAUTO at** and are

not statistically significant with COEPRO. Going by the values of the coefficients, it is evident that in an effort to enhance process innovations through process design, process automation and cost effective process, this will contribute to increase performance of the MFIs. Empirically, this result is in conformity with the studies of Ferreira & Fernandes, (2014). The positive values of the coefficients and the overall p-value for the F-statistics which is significant at*** level shows that there exist a positive and significant relationship between process innovations and the performance of MFIs, thus rejecting the null hypothesis which states that process innovation has no significant effect on the performance of MFIs in Buea Sub-Division. This is consistent with the Breusch-Pagan heteroskedasticity p-value which is insignificant implying that the null hypothesis that heteroskedasticity is absent in model two is accepted. The results go in line with the study of Mabrouk & Mamoghli (2010) who states that if process innovation is continued and new technologies are introduced then innovative banks continue to earn high profits. Their study adopts profitability as the only determinant of performance and focuses on commercial banks though a service industry while this study sees performance as composite function and focused on MFIs. Process Automation had a significant relationship with performance which is in line with the demand-supply innovation theory (Tidd, 2006) and diffusion innovation theory by Rodgers (1962) which states that innovation diffusion is based on the notion that adoption of an innovation involves spontaneous or planned spread of new ideas. This is further supported by the Transaction cost theory by Coase (1937) who state that firms lower internal transaction cost will lead to growth thus performance. Only 27% of the variations in the performance of MFIs in Buea Sub-Division were explained by the by Process with 77% explained by the error term (other variables) which posed a limitation to the results of this study.

The third objective was to examine the extent to which institutional innovations affect the performance of MFIs in Buea Sub-Division. Model 3 was created to this effect and findings in regression analysis indicated that there is a positive and significant relationship between Technology (TECH) and Institutional Partnership with other Financial Intermediaries (IPAFI) and performance of microfinance institutions in Buea Sub-Division. These positive relationships are seen in the value of the coefficients and corresponding p-values which are significant at ***. This implies that in a bit to integrate technology (TECH) and enhance Institutional Partnership with other Financial Intermediaries (IPAFI), this will lead to increase performance by the corresponding units of the coefficients. Findings also indicated that Organizational Structure (ORGS) has a negative relationship with performance of MFIs in Buea Sub-Division with a negative value of the coefficient. This means that in an effort to enhance Organizational Structure (ORGS), performance of MFIs will drop by the corresponding value of the coefficient of ORGS. Organizational Structure (ORGS) is not statistically significant. Giving the overall p-value of the F-statistics which is significant at ***, and shows a positive relationship between institutional innovations (ORGS, TECH, IPAFI) and performance of MFIs, we reject the null hypotheses which states that institutional innovations have no significant effect on the performance of MFIs in Buea Sub-Division. This is in conformity with the Breusch-Pagan heteroskedasticity p-value which is insignificant implying that the null hypothesis that heteroskedasticity is absent in model three is accepted. Empirically, these findings tally with the studies of Lin and Chen (2016), and Boachie-Mensahand (2015). In addition, the study is in line with the work of Mugo, (2012) that Institutional innovations are characterized by technology. He further stated that MFIs enjoy economies of scale and more so, using technology enables the institutions to cut down costs and reduce interest rates. This also aligns with the study of Salim, (2011) who did an empirical investigation on the effects of institutional innovation on company performance. The study hypothesizes that institutional innovation is positively related to company performance. Findings from the study supported the hypothesis that institutional innovations have a significant influence on firm's performance. The results also goes in line with the study of Messomo (2018) who outlines that institutional partnership will enable MFIs to gain much in

terms of training, human resources, auditing, monitoring, transfer of funds etc. This further aligns with theory of Induced Institutional Innovation by Vernon & Hayami (1984). The theory states that changes in the demand for institutional innovation are induced by changes in relative resource endowments and by technical change. For there to be effective institutional innovations, financial firms must have requisite resources particularly in terms of technical expertise and finances to enable them source the necessary technologies. Messomo (2008) did not however focus his studies on the performance of MFIs and his studies cover the entire Cameroon. Islam (2008) carried out his studies in Bangladesh with focus on the Grameen Bank which is a fast developing country with lots of stability in the microfinance market.

6. Summary of Major Findings and Policy Recommendations

6.1 Summary of Major Findings

This study aimed at assessing the effects of Microfinance innovations on the performance of MFIs in Buea Sub-Division. The study targeted 120 for data collection. The response rate stood at 75.8% with 91 respondents. By means of quantitative and qualitative approaches, several findings were made. Quantitative data was analyzed using Statistical Package for Social Science (SPSS). Results of descriptive statistics reveals that there are very few employers in category one MFIs than that of category two. Majority of these employees fall within the age range of 26-35. Results of descriptive statistics also revealed by mean of above 3/5 that product innovation, process innovation and institutional innovations were implemented in MFIs in Buea Sub-Division for the past three years. This thus contributed to increase in performance explain by a mean of 3.393/5.

Results from the regression analysis equally reviewed that there is a positive relationship between product innovation and performance of MFIs in Buea Sub-Division via INEP, IMP, and PRD explain by the values of the coefficient. If MFIs should invest more on product innovation in terms of introducing new product, technological newness in products (improved products) and product differentiation, there will be an increase in the performance of MFIs. It can therefore be suggested that performance of microfinance institutions can be driven by product innovation. It was however discovered that these positive relationships were statistically significant with INEP and not statistically significant with IMP and PRD. The positive relationship and the overall p-value of product innovation enable the study to reject the null hypotheses which states that product innovation has no significant effect on the performance of MFIs.

Results from regression analysis also revealed that process innovation explains 30.78% of the variance in performance of MFIs. There is a positive relationship between process innovation (PROD, PROAUTO, COEPRO) and the performance of MFIs in Buea Sub-Division explains by positive values of the coefficients. This means that any effort to enhance PROD, PROAUTO and COEPRO will significantly lead to improvement of performance of MFIs by the β values listed above. These relationships were however statistically significant between PROD and PROAUTO with performance and not statistically significant between COEPRO and performance respectively. The coefficients show that in an effort to enhance process innovation through process design, process automation and cost effective process, this will contribute to increase performance of the MFIs. It can therefore be suggested that performance of microfinance institutions can be driven by process innovation. The positive values of β and the general p-value shows that there exist a positive and significant relationship between process innovation and the performance of MFIs, thus rejecting the null hypothesis which states that process innovation has no significant effect on the performance of MFIs in Buea Sub-Division.

Lastly, findings indicated that there is a positive and significant relationship between TECH and IPAFI and performance of microfinance institutions in Buea Sub-Division. These positive relationships are

seen in the value of the coefficients and significant at 1% level. In a bit to enhance TECH and IPAFI, this will lead to increase performance by the corresponding units of β . It is suggested that performance of microfinance institutions can be driven by institutional innovation in the form of TECH and IPAFI. ORGS has a negative relationship with performance of MFIs and thus in an effort to enhance ORGS, performance of MFIs will drop by the corresponding value the coefficient of ORGS. ORGS was not statistically significant at 5% level. The overall p-value and the positive correlation between institutional innovations (ORGS, TECH, IPAFI) and performance of MFIs warrant the study to reject the null hypotheses which states that institutional innovation has no significant effect on the performance of MFIs in Buea Sub-Division

6.2 Policy Recommendations

Innovation in the financial sector is absolutely inevitable if any microfinance institution Intent to stay in the marketplace owing to the rapid changes in the sector. It is important for microfinance institutions to be involved in continuous research and development not only to offer new products, processes and institutions, but also innovations that satisfy the consumer. Management of microfinance Institutions should invest and introduced quite regular, new products that will enable them enlarge their markets and meet the demands of their customers. This will go a long way to achieve it dual mission of outreach and sustainability. The management of MFIs should improve on their already existing products with technological features that could improve on the customer's satisfaction giving the rapid advancement in technology where everyone wants to belong. Process innovation is vital to microfinance institutions as this provides a good policy towards efficiency in service delivery since this sector is service oriented. Process innovations entail the entire operations of such institutions and can be enhanced through best practices in line with industry standards. This study recommends that measures be put in place in order for Micro finance institutions to improve efficiency and sustainability through process innovations. MFIs should have a well articulated and innovative work designs, process design, renew its procedures and processes employed to execute activities within the MFIs. MFIs should adopt more automated processes to reduce the time taken to execute a transaction and to reduce the cost component of such processes. MFIs should hire advanced automated software to enable them ease process of treating transactions, improve their service delivery and the delivery speed. MFIs should constantly embrace and include Technology in its institutional policies. This will enable them adopt advanced technologies in management; renew the management information system and information sharing practices. This technology will also help in product and services delivery. MFIs should partner with other financial institution. This will enable gain skills and training from experienced financial institutions, improved on their services, gain financial assistance and other technical benefits

References

1. Aghion, B, & Morduch, J. (2005). *The economics of microfinance*. London: The Massachusetts Institute of Technology Press.
2. Akume, & Ngongue, (2017). The performance of microfinance institutions in Cameroon: Does Financial Regulation Really Matter?.*Research Journal of Finance and Accounting*. Vol 8, No 2 (2017)
3. Aquilas, N. (2020). Natural resources depletion and economic growth in Cameroon. *A Thesis Submitted to the Department of Economics, Faculty of Social and Management Sciences of the University of Buea in Partial Fulfilment of the Requirements for the Award of the Doctor of Philosophy (Ph.D.) Degree in Economics*. Unpublished.
4. Armendariz de Aghion, Beatriz (ed.); Labie, Marc (ed.) (2011): *The Handbook of Microfinance*, Singapore: World Scientific Publishing Co. Pte. Ltd, Singapore

5. Amin. M. E.(2005). *Social Science Reseach : Conception, Methodology and Analysis*.Makerere University, Kampala Uganda.
6. Basu, S. (2002). “*Financial Liberalization and Intervention: a New Analysis of Credit Rationing*”, retrieved from <http://www.politicalreviewnet.com/polrev/reviews>
7. CGAP. (2005). *Microfinance Consensus Guidelines :Developing Deposit Service for the Poor*. Washington DC: World Bank Group.
8. Christensen, C.M. (2006) ‘The ongoing process of building a theory of disruption’, *Journal of Product Innovation Management*, Vol. 23, No. 1, pp.39–55.
9. Cronbach, L. J. (1951). “Coefficient Alpha and the Internal Structure of Tests,” *Psychometrika*, 16, 297-334
10. De Mel, S., McKenzie, D., & Woodruff, C. (2009). Innovative Firms or Innovative Owners? Determinants of Innovation in Micro, Small, and Medium Enterprises. IZA Discussion Paper No. 3962.
11. Dudovskiy, J .(2018). *An Ultimate Guide to Writing a Dissertation in Business Studies, A Step-by-Step Assistance*.2018 edition, research-methodology.net.
12. Filpo, J. (2006). Banking the Unbanked: Technology’s Role in Delivering Accessible Financial Services to the Poor, Retrieved from: <http://www.gdrc.org/icm/govern/banking-unbanked.pdf>
13. Fotabong(2012). *The Microfinance Market of Cameroon; Analyzing trends and current developments*. FOTABRIGHT, Cameroon.
14. Frame, W. S., & White, L. J. (2014). Technological change, financial innovation, and diffusion in banking. New York University (NU) Working Paper, 2451/33549..
15. Grameen Bank. (2004) “*Grameen Bank Monthly Update: May 2004*”, retrieved from [http://www.grameen-info.org/bank/May US\\$04.htm](http://www.grameen-info.org/bank/May US$04.htm).
16. Gupta, S. (2008). *Microfinance in Africa: Harnessing the Potential of a Continent*. Microfinance Insight. An Intellect Publication.
17. Kamal Lilian (2016). Innovations in Microfinance Funding. *Journal of Applied Business and Economics* Vol. 18(5)
18. Kamakia. P, (2014) *Effect of product innovation on performance of Commercial banks in Kenya: A research project submitted in partial fulfillment of the requirements for the award of the degree of master of business administration, school of business, university of Nairobi, Kenya*.
19. Kariuki, F.W. (2010). The Relationship between Financial Engineering and Financial Performance of Commercial Banks in Kenya. *International Academic Journal of Economics and Finance* | Volume 3, Issue 4, pp. 32-46.
20. Kibugo. M.K & Maina. K, (2016). Effect Of Financial Innovations On Performance Of Microfinance Institutions In Nakuru Town, Kenya. *IOSR Journal of Business and Management*. 18. 43-49. 10.9790/487X-1810044349.
21. Koech, C.S., & Makori, M. (2014).Effects of innovation orientation on financial performance of commercial Banks in Kenya: A Case of National Bank of Kenya. *European Journal of Business Management*, 2(1), 161-173.

22. Lafourcade, A., Isern, J., Mwangi, P., & Brown, M. (2005). Overview of the Outreach and Financial Performance of Microfinance Institutions in Africa. <http://www.themix.org/sites/default/files/MBB%2012%20-20Outreach%20and%20Financial%20Performance%20of%20African%20MFIs.pdf>.
23. Laperche, B. and Levratto, N (2016) ‘Stratégies’,d’ innovation et mutation des structures industrielles, *Innovations*, Vol. 2, No. 50, pp.5–12.
24. Lelart, M (2005) De la finance informelle à la microfinance, Paris, Editions des archives contemporaines.
25. Ledgerwood, J.,& White, V. (2006). *Transforming Microfinance Institutions :Providing Full Financial Services to the Poor*. Wasington DC: World Bank.
26. Ledgerwood. J (1999). The supply of microfinance services to clients. P56. Washington, D. C, USA.
27. Lin, J. Y. (1990). Education and Innovation Adoption in Agriculture: Evidence from Hybrid Rice in China. 73(3), 713-723. <http://dx.doi.org/10.2307/1242823>
28. Messomo, E.S. (2018). Financial and institutional innovations in microfinance institutions and commercial banks in Cameroon. *Int. J. Financial Innovation in Banking, Vol. 2, No. 2*,
29. Messomo, E.S. (2017). Understanding microfinance institutions and commercial bank’s relationships and innovations in Cameroon Financial environment: *journal of science*, Willey online library.
30. Mersland.R. Strøm. Ø.(2010) *The Past and Future of Innovations in Microfinance*. <https://www.researchgate.net/publication/228200453>
31. MoFEP. (2008). *General Background on Global Microfinance Trends*. Ministry of Finance and Economic Planning, Government of Ghana. Available at <http://www.microfinancegateway.org/p/site/m/template.rc/1.9.46118/>
32. Morduch, J. (1999). “The Microfinance Promise”, *Journal of Economic Literature*, Vol. 37(4), pp. 1569-1614
33. Morduch, J. (2000). The Microfnance Schism. www.elsevier.com/locate/worlddev, www.elsevier.com/locate/worlddev
34. Mori, N., & Munisi, G. (2009). *Strategic Decision Making in Microfinance Organisations:Stakeholder Perspective*. European Research Conference on Microfinance from 2nd - 4th June (pp. 1-17). Brussels.
35. Mabrouk, A., & Mamoghli C. (2010). Dynamic of financial innovation and performance of banking firms: Context of an emerging banking industry. *International Research Journal of Finance and Economics*, USA.
36. Mugo, J.G. (2012).The Effect of Financial Innovation on the Growth of Micro-finance Institutions in Kenya. *International Academic Journal of Economics and Finance* | Volume 3, Issue 4, pp. 32-46
37. Nana Opere-Djan, N. (2008). Microfinance Product Development in Ghana: the Innovative and Uniqueness Dimensions of Kraban Support Foundation’s Microloan Products. The Third Annual Microfinance of the UCC, held from the 10th to 11th January, 2008 at the Elmina Beach Resort, Cape Coast, Ghana.

38. Nataya &, J. E. Sutanto(2018). The effect of product innovation and service innovation towards marketing performance: Case Study on Plastic Producer in Surabaya, *International Journal of Business and Management Invention*. Vol 7, Issue 8, 2018. PP 61-66.
39. Nguyen T. Canh, Nguyen .T. Liem , Phung .A. Thu, & Nguyen .V. Khuong (2019). The Impact of Innovation on the Firm Performance and Corporate Social Responsibility of Vietnamese Manufacturing Firms. www.mdpi.com/journal/sustainability .
40. Nugroho, Y., & Miles, I. (2009). *Global Review of Innovation Intelligence and Policy Studies*, Mini Study 06 – Microfinance & Innovation. A Project for DG Enterprise and Industry. The European Commission.
41. OECD. (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*, Third Edition. OECD, Paris.
42. Omwanza, C. O. & Jagongo, A. (2019). Financial innovations and financial performance of microfinance institutions in Kenya: A theoretical review. *International Academic Journal of Economics and Finance*, 3(4), 32-46.
43. Rajalahti, R., Janssen, W., & Pehu, E. (2008). *Agricultural Innovation Systems: From Diagnostics toward Operational Practices*. Agriculture and Rural Development Discussion Paper 38, the World Bank.
44. Robinson, M. (2001). *The Microfinance Revolution: Sustainable Finance for the Poor*. Washington, DC: The World Bank. Pp. xlvii, 304.
45. Rogers, E. (2003). *Diffusion of Innovations*. New York: Free Press
46. Rosli. M & Sidek. S, (2013). The Impact of Innovation on the Performance of Small and Medium Manufacturing Enterprises: Evidence from Malaysia, *Journal of Innovation Management in Small & Medium Enterprise* <http://www.ibimapublishing.com>
47. Salim, I.M., & Sulaiman, M. (2011). Impact of Organizational Innovation on Firm Performance. Evidence from Malaysian based ICT companies.
48. Schumpeter, J. A. (1934). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle.*, NJ: Transaction Publishers, New Jersey
49. Stanley Kojo Dary(2013). Exploring Innovations in Microfinance Institutions in Northern Ghana, marothink Institute, Business and Economic Research, Vol. 3, No. 1
50. Steel, F. W., & Andah, O. D. (2003). Rural and Micro Finance Regulation in Ghana: Implications for Development and Performance of the Industry. Africa Region Working Paper Series No. 49.
51. Tazul Islam (2008). *Promoting Institutional Innovations in Microfinance: Replicating Theories is not enough*. AIUB Bus Econ Working Paper Series, No 2008-06, <http://orp.aiub.edu/WorkingPaper/WorkingPaper.aspx?year=2008>
52. Tidd, J. (2006). *A Review of Innovation Models*. London: Tanaka Business School
53. Varis, M. & Littunen, H. (2010). “Types of Innovation, Sources of Information and Performance in Entrepreneurial SMEs,” *European Journal of Innovation Management*, 3 (2), 128-154.
54. Yunus, Muhammad (2007): *Creating a world without poverty – Social Business and the future of capitalism*, New York: Public Affairs.