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FACTORS INFLUENCING THE SUSTAINABILITY OF MICROFINANCE INSTITUTIONS IN GHANA: A CASE OF MICROFINANCE INSTITUTIONS IN ASHANTI REGION

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INSTITUTIONS IN GHANA: A CASE OF MICROFINANCE INSTITUTIONS IN
ASHANTI REGION.**

BY

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A thesis submitted to the school of economics and business, Norwegian University of Life

Science, in partial fulfillment of the requirements for the degree of

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DECLARATION

I hereby declare that this research is my original work toward the MSc degree.

GIDEON ASARE.

DEDICATION

I dedicate this work to my brother Isaac Owusu Sekyere for his support for my education.

ABSTRACT

Eradication of poverty is a big problem in the world and many countries are doing their possible best to get rid of it. Ghana is one of these countries. Microfinance, which deals with the provision finance to the poor, has become an important tool to eradicate poverty.

How these microfinance institutions can sustain their business has become a big problem in Ghana since many of these institutions have collapsed recently. The need to search for factors affecting the sustainability of these institutions has arisen and that is what this research is looking up to. This research is searching for factors that influence the sustainability of microfinance institutions in Ghana.

Due to the nature of this research, descriptive research was the appropriate research design to use. Purposive sampling was used for the selection of the managers (respondents) of the various microfinance institutions.

The research found that several institutions struggled with high default rates and also charged high interest rates. Bank of Ghana which is the central bank of the country, has set rules and guidelines which regulate the establishment and the management of the microfinance institutions. Bank of Ghana has increase the minimum capital requirements (startup capital) of these microfinance institutions which has a negative influence on their sustainability. The introduction of financial technology in Ghana's financial sector has an influence on the sustainability of microfinance institutions. Financial technology such as mobile money has a positive influence on microfinance institutions in Ghana since these institutions has taken advantage of this technology to increase their profit margin.

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LIST OF ABBREVIATION

ELA	Emergency liquidity Assistance
AQR	Asset Quality Review
ATM	Automatic teller machine
Fintech	Financial technology
GhIPSS	Ghana Interbank Payment and Settlement Systems
Telecom	Telecommunication company

CHAPTER 1

1.0 Introduction

According to the World Bank in 2012, about 75% of the poor people in the world do not have a bank account (World Bank Group, 2012). These 2.5 billion people do not enjoy the benefits that banks provide to their customers such as loans, saving, insurance, money transfers and others. Most of these people are from developing countries. From the World Bank report, more than 50% of the population in developing countries do not have bank accounts. The establishment of many microfinance institutions (MFIs) which mainly deal with the poor people can help to improve the livelihood of the poor as well as the development of the world at large (Jasmina Devinck, 2013). The president of the World Bank Group-Robert B. Zoellick said "Providing financial services to the 2.5 billion people who are 'unbanked' could boost economic growth and opportunity for the world's poor,". (World Bank Group, 2012).

The world has recognized the need to provide financial services to these poor people in order to reduce the gap between the poor and the rich. Microfinance has become a very important mechanism to provide financial services to the low income women and men in both rural and urban areas who do not have access to these services through traditional banks. Microfinance refers to the provision of financial services such as savings, credit, insurance and payment to low income clients which includes the self-employed (Ledgerwood, 1999). MFIs are being financed in different ways which includes deposits from clients, revenue from private owners, donors from developed countries and organizations (David Fehr and Gaamaa 2004). In Ghana, most MFIs are being financed by the private owners of the institutions while some of them use the deposit they receive from their customers as the only source of finance and few of them get support from NGOs.

1.1 Problem Statement

How these MFIs can sustain has become a question of the day. Most of these MFIs cannot stay in business for many years due to a lot of factors which sometime differ from countries to countries.

Ghana is suffering from this problem of which most the MFIs cannot stay in business for more than three years, in which most client losing their deposit. Most studies have found out that a country's political and economic environments affects how microfinance is provided. The development level of a country's financial sector as well as government economic and social policies influence MFIs in the process of delivering financial services to the poor (Ledgerwood, 1999).The purpose of this research is to find out if an increase in the minimum capital required by bank of Ghana (BOG), the introduction of mobile money transfers by the telecommunication companies and loan default has an impact on the sustainability of MFIs.

MFIs has grown rapidly since 2003, Mr. Peter Ntsiful, Brong-Ahafo Regional Manager of Bank of Ghana (BOG) announce in 2012 that, bank of Ghana has 216 licensed MFIs operating in the country (Ghana news Agency, 2012). The number of MFIs continued to increase every year. In 2014, Bank of Ghana, the country's central banking authority, has issued licenses to 394 microfinance institutions (MFIs) (Microcapital, 2014)which almost doubled from 2012, including 344 classified as microfinance companies, 45 as money-lending companies and five as financial non-governmental organizations. The number continue to increase in 2016 to five hundred and sixty four (564) according to the BOG report (Bank of Ghana report, 2016).

Whilst some of the existing MFIs are performing very well, others also find it difficult to sustain. At the second annual general meeting (AGM) of the Ghana Association of Microfinance Companies (GAMC) in 2013 report the collapse of 30 MFIs during the first quarter of the year (Ghana business news,2013).A number of MFIs have collapse in recent years, including Noble dream microfinance, Eden microfinance and DKM micro finance which recently collapse. Few studies have been carried out on the factors of sustainability of microfinance institution in the country. Factors influencing the sustainability of these MFIs in Ghana are not well known. Sustainability of a MFI is when it is able to provide financial services to its clients and cover all of its cost through interest and income payed by its clients. This research will seek to find solution to the question, what are the factors influencing the sustainability of MFIs in Ashanti region of Ghana?

CHAPTER 2

Background of the study

2.1 Financial Institutions

Institutions that operate in the financial market called financial institutions. These institutions are grouped into two, which are banks and nonbank financial institutions. These two major groups could further be grouped into nine categories. Ghana has both banks and nonbank financial institutions that are providing financial services to their customers and also collect funds from both private and the public and reinvest them in capital assets.

2.2 Financial Institutions in Ghana

The financial sector in Ghana has grown tremendously in recent years with Ghana having nine major financial institutions. The major categories of financial institutions which are currently operating in Ghana consist of the central banks, retail and commercial banks, internet banks, credit unions, savings and loans associations, investment banks, investment companies, brokerage firms, insurance companies and mortgage companies. As of April 2018, Ghana were having 37 financial houses, two leasing companies, three finance and leasing companies (Bank of Ghana, 2018). There are 35 license commercial banks, 140 rural and community banks which operate in the country (Bank of Ghana, 2017). There are 269 MFIs that operate across the ten regions of Ghana excluding ,savings and loans companies, cooperatives and credit unions. All of these financial institutions are being regulated by the central bank except the insurance companies which are being regulated by the National Insurance Commission. These institutions are serving the economic needs of both rural and urban population of the country.

2.3 Sustainability of financial Institutions in Ghana.

Financial institutions can sustain their business by using their products, services and strategies to create financial returns. (Weber and Olaf, 1965).

Ghana decided to liberalize its financial sector in order to deepen intermediation to support economic growth and also to integrate the economy of Ghana with the global financial market in year 2000(African financial reforms, 2008). In view of this, the joint International Monetary fund (IMF)-World Bank Financial Sector Assessment Program (FSAP) assessment was introduced in Ghana in the early 2000, which lead to the establishment of new financial institutions with the expectation of high competition and new financial products and services in order to increase economic growth (African financial reforms, 2008). These set of reforms brought about supervision in the banking sector which lead to capital adequacy good risk management and growth in the banking sector until Ghana's economy experienced several shocks from both domestic and external sources. Starting from 2012, Ghana's economy has gone through several crises which have affected the financial institutions as well. The economy was described as having a large fiscal and current account deficits, with high and volatile exchange rate developments, high inflation and low real GDP growth which fell from 15 percent in 2012 to 7.9 percent in 2011(Bank of Ghana annual report,2012). In 2016, global and domestic conditions posed challenges on the macro economy of Ghana. This lead to a tight monetary policy stance, foreign exchange rate was relatively high and high inflation. In addition to this, GDP grew by 3.5 percent against a target of 4.1 percent for the year. This was caused by domestic factors such as petroleum production bottlenecks, private sector growth was very weak and the country's general election also caused economic problems. All of which exerted significant pressures on the financial institutions in the country.

The banking sector also got its share of these crises. The Asset Quality Review (AQR) exercise taken by the central bank of Ghana revealed that nine banks were undercapitalized in 2016 of which bank of Ghana charged these banks to submit recapitalization plans in 2017. Prominent commercial banks like UT bank and Capital bank were also in a position in which they were not able to meet their obligations due to the fact that their liability exceeded their asset and were declared insolvent by BOG and were given to Ghana Commercial Bank to take over (Bank of Ghana annual report, 2017). UniBank, one of the commercial banks in Ghana has been relying on the bank of Ghana Emergency liquidity Assistance (ELA) instrument since 2015(Bank of Ghana, 2017). After March 2017, UniBank Capital Adequacy Ratio were decline to negative. According to Bank of Ghana regulations, the minimum reserve ratio (which measure liquidity) should be 10

percent but that of UniBank had fallen below 1.0 percent since October 2017. Due to these challenges, Bank of Ghana declared UniBank insolvent and took over the bank.

Due to the macro economic instability, most of the financial institutions such as banks, insurance companies and MFIs profit levels has decreased which is attributed to high interest costs, high non-performing loans and high operating costs (BOG report, 2016, p21). Interbank interest rates in 2016 was 25 percent and declined to 19 percent which is still high (Bank of Ghana annual report, 2017). This high interest rates make it expensive for investors to borrow from these financial institutions and find it difficult to pay back the loans .Furthermore, high cost of operation as a result high inflation of 15 percent in 2016 and 11 percent in 2017 in the economy is also a contributing factor to the decline of the profit level of these institutions (Bank of Ghana annual report, 2017). Inflation in Ghana was very high in 2016 in which Ghana became the tenth country with highest inflation in the world and fourth in Africa surpassing only South Sudan, Malawi and Angola. Moreover, 2016 Comprehensive Asset Quality Review (AQR) which was conducted by the central Bank of Ghana reviewed that the asset quality in the banking sector has decreased. Most of the commercial banks were having toxic balance sheet which contributed to the decline in the credit given to the private sector and also credit with high lending rate (The state of the financial sector in Ghana report, 2017, p2). Bank of Ghana has set in to provide Emergency Liquidity asset (ELA) to these nonperforming banks, some of which were uncollateralized hence posed high risks to the Bank of Ghana and also to the commercial banks themselves (The state of the financial sector in Ghana report, 2017, p2). Therefore, the injection of this official liquidity led to inflation and became difficult for BOG to disinflate hence making it difficult for financial institutions to sustain the business.

In addition, lack of corporate governance structures as reviewed by the reports from BOGs supervisory team in 2016 is a major problem in some of the financial institutions in Ghana. The credit and risk management policies were undermined (not followed) by both management and board of directors of some of the banks and deposit taking institutions (The state of the financial sector in Ghana report,2017, p3). Most of shareholders of these institutions were lending credits to themselves and kept on extending credits without due process which created series of ownership/management conflicts in many financial institutions.

In conclusion, Ghana's financial institutions which include banks and non-bank financial institutions are not stable as indicated by the 2016 BOG report which is as a result of the countries macroeconomic challenges.

CHAPTER 3

THEORY AND LITERATURE REVIEW

3.1 Microfinance Literature Review

This chapter captures literature on MFIs in general.

3.2 History of microfinance

Microfinance, otherwise known as ‘microcredit’ evolved as an economic development approach intended to benefit low-income women and men. Microfinance refers to the provision of financial services to low-income clients, including the self-employed (Ledgerwood, 1999). The idea of microfinance did not start recently but it started many years ago across the world. It started as "susu" in Ghana, "committee" in India, "tanda" in Mexico, "arisan" in Indonesia, "seettuva" in Sri Lanka, “tanomoshi-ko or mujin” in 11 pre-1945 Japan, “wichin gye” in Korea, “likelembas” in the Democratic Republic of the Congo, “xitique” in Mozambique and "pasanaku" in Bolivia, as well as many savings clubs and burial societies around all over the world (Mercy Corps, 2006). In Europe, as early as the 15th century, the Catholic Church founded pawn shops as an alternative to usurious money-lenders (Helms, Brigit, 2006). Muhammad Yunus formally introduced microfinance in Bangladesh in the 1970s with the aim to alleviate poverty in the country. Issuing of small loans (\$5–\$100) to the poor and the target populations were the impoverished Bangladesh citizens living in outlying rural villages (Robert, 2006)

Hence, in Ghana, provision of small loans and other facilities like savings, insurance, transfer services to poor low-income households and microenterprises has been the focus of microfinance companies.

According to the Ministry of Finance [Ghana] (2012), microfinance has flourished in Ghana ever since the Canadian Catholic Missionaries established the first credit union in Africa in the Northern part of the country in 1955. As 31st July 2016, Ghana had 385 licensed microfinance companies in operation (Bank of Ghana, 2016). The number continued to increase to 566 at the end of December 2017 (Bank of Ghana report, 2017).

About 86.1% of the working populations in Ghana are found in the private informal sector (Ghana Statistical Service, 2012). This group is characterized by lack of access to credit, which constrains

the development and growth of that sector of the economy. A casual observation shows that the traditional commercial banking approach to microfinance delivery often does not work well because the credit delivery methodology requires documentary evidence, long-standing bank-customer relationship and collateral, which most micro and small businesses do not possess (Otoo, 2012). The commercial banking system, which has about twenty-three (23) major banks, reaches only 5% of households and captures 40% of money supply (Otoo, 2012). Therefore, there is need for efficient microfinance operations to boost the informal sector of the economy.

3.3 The Role of MFIs

Study has shown in Nigeria that microfinance has a positive impact on entrepreneurial development (Ojo Olu, 2009). This research shows a positive relationship between sustainable microfinance and entrepreneurial development. As MFIs are able to stay in business, entrepreneurs are able to expand their businesses since they will have access to finance. The development of the entrepreneurship will lead to a reduction in unemployment which will affect the whole economy (Ojo Olu, 2009).

MFIs provide microcredit to the poor. Many see microcredit as much more than a financial instrument (Nicholas Kristof, 2009). It has been suggested that it has the potential to be entirely transformative by providing capital for people especially women to help provide educational and health needs of their family (Nicholas Kristof, 2009). Women will also feel they are not being discriminated in the society as they can also get access to credit and work. In Ghana, clients of microfinance are predominantly women in both rural and urban centers (Ministry of finance, 2012). These women use the capital they receive from MFIs to invest in farming, retailing, food processing and street vending.

MFIs have helped improve livelihood and eradicate extreme poverty (Kofi Anan, 2005). During the international year of microfinance in 2005, the then UN Secretary General Kofi Annan, said “The great challenge before us is to address the constraints that exclude people from full participation in the financial sector. The International Year of Microcredit offers a pivotal opportunity for the international community to engage in a shared commitment to meet this challenge. Together, we can and must build inclusive financial sectors that help people improve

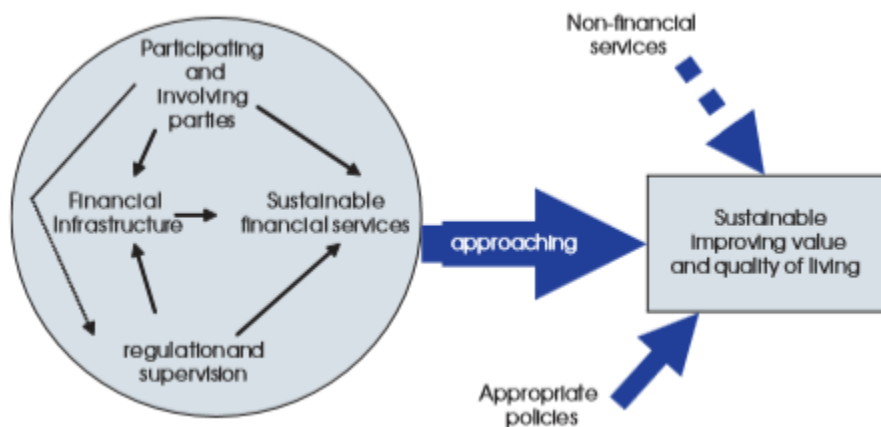
their lives." (Kofi Anan, 2005). Microfinance has taken away the challenges that the poor were uncounted in order to participate in the financial sector and they can now be entrusted by the MFIs to receive loans.

The socio-economic role of MFIs

MFIs play a vital role in the development of a country both socially and economically. These institutions perform their function through the financial and the social sector of the economy.

Figure 3.1 Socio-economic role of MFIs

Source: Nguyen Kim Anh, 2013



The diagram above shows how MFIs will lead to a sustainable improvement of value and quality of living of the low income group. The intention is that the involvement of MFIs in the provision of financial services with proper regulations and supervision will lead to a sustainable financial services and the end result will be a sustainable improvement of value and quality of poor people in the long run

3.4 Sustainability of MFIs in Ghana

Sustainability of MFIs has become a major concern not only in Ghana, but all over the world since microcredit is one of the major tools for poverty reduction. Many professionals have different perspectives in defining a sustainable MFI. Based on a banker perspective a MFI is sustainable when its operational income exceed its operational cost (Sharma and Nepal, 1997). This definition is from accounting approach, which only looks at sustainability from the financial point of view. Woller et al (1999) use Brinkerhorff definition of sustainability as the “ability of a program to produce outputs that are valued sufficiently by beneficiaries and other stakeholders that the program receives enough resources and inputs to continue production”.

How MFIs can stay in business has become a serious issue in Ghana. Bank of Ghana published in their report 564 registered microfinance companies at the end of December, 2016, but few of them are still in operation. The collapse of microfinance companies in Ghana which has increased from 2014 until recently, has become a very big issue with the most recent once such as the collapse of God is love MF, noble dream Mf DKM microfinance among others. Meanwhile, the number of registered MFIs keep on increasing, but whether they will be able to stay in business is a question. According to BOG annual report in 2017, the number of registered MFIs have increase to 566 as at December 2017 as compared to 564 from the previous year (BOG annual report, 2017). Even though the number of the registered MFIs is encouraging only few of them are in operation. According to BOG all MFIs are required to meet a minimum startup capital of GH¢2.0 million by 30th June 2018 (BOG annual report, 2017). From the BOG annual report in 2017, only 35 MFIs had met the required amount as of 31st December 2017. Most of the other MFIs have closed down their business and the customers have lost their deposits.

Growth in total assets of these MFIs in recent years has not been encouraging at all looking at the statistics from BOG reports. At the end of December 2016, the total asset of the sector increased by 1.9 percent compared to the growth 30.3 percent in 2015. The sector recorded a negative growth rate of 2.9 percent and 60.2 respectively in Loans & Advances and Investments in 2016 which shows a sharp declines from their previous positions of 14.7 per cent and 103.8 per cent in 2015 (BOG annual report, 2016).

The BOG report in 2016 shows that, deposits of MFIs decreased by 4.5 percent as compared to a positive growth rate of 15.2 percent growth rate in 2015 meanwhile borrowing increased by 18.8

percent compared to 15.2 percent in 2015 (BOG annual report, 2016). The total assets remain stable at GH¢1.3 billion in 2017 (BOG annual report, 2017).

3.5 Microfinance Institutions in Ghana

MFIs can operate under two categories of license issued by BOG. They are categories under Tier 2 and Tier 3 microfinance institution license which are deposit and non-deposit taking MFIs respectively (Bank of Ghana, 2011).

Tier 2 MFIs shall be undertaken by companies limited by shares and should also include microfinance in their name (Bank of Ghana, 2011). Institutions under this category are allowed to open new branches if it being approved by BOG depending on their capital requirement. These institutions can undertake activities such as accepting of deposit which should not exceed 5 percent of the minimum paid up capital from the general public, given of loans to their customers and any other activities apart from this two should be approved by BOG (Bank of Ghana, 2011). They are not allowed to take activities such as issue of checking account, engaging in foreign exchange business and engaging in any trading activities (Bank of Ghana, 2011).

Tier 3 MFIs activities shall be undertaken by companies limited by shares (Money lenders) or companies limited by guarantee (FNGOs) with companies undertaking money lending activities should add words 'Money lending' to their names (Bank of Ghana, 2011). Companies operating as non-deposit taking microfinance should add the acronym FNGO to their name and can open new branches but it should be approved by BOG (Bank of Ghana, 2011). They can raise fund from donors and high net worth individuals but should exclude deposit. In a case where they receive deposits as collateral for lending, it should be held in an escrow account with a designated commercial bank and any other activity undertaking apart from the one stated should be approved by.

The BOG annual report in 2017 shows 566 registered MFIs as at 31st December 2017. The 566 MFIs comprises of 12 financial NGOs, 70 money lending companies and 484 microfinance companies (Bank of Ghana report, 2017). This means that the 484 microfinance companies which are categorized under Tier 2 take about 86 percent of the entire MFIs in the country and the Tier 3 microfinance institutions takes only 14 percent.

3.6 Minimum capital requirement (Startup Capital requirement)

All banks and non-bank financial institutions which want to operate in Ghana should have a license from BOG. One of the requirements for this license is the fulfillment of the minimum capital requirement (Bank of Ghana license policy guidelines, 2008).

Bank of Ghana brought new operating rules and guidelines for MFIs in the year 2011, which state that all deposit taking MFIs should hold a minimum paid up capital which should not be less than GHS 100,000.00 for one unit of office, and the establishment of new branch(es) shall be subjected to a higher capital requirement(Bank of Ghana, 2011). The MFIs are not supposed to give a single uninsured loan which exceed 5 percent of the paid up capital. In addition to this minimum requirements, the MFIs are to maintain a minimum capital ratio of 10 percent. This 10 percent from the minimum capital should be kept at the commercial banks and must not be spent.

There has been a new development from the rules and guidelines for licensing and operating a MFI in Ghana which has increased the minimum capital requirement GHS 2,000,000.00. This new capital requirement is applied to new and already existing MFIs. The MFIs are not to spend more than 25 percent of this minimum capital on property, plant and equipment (capital expenditure). The remaining 75 percent should be in a liquid cash resources of which 10 percent should be saved at a commercial bank which should not be used and remaining 65 percent can be used to run the MFI (Bank of Ghana 2015). This guideline on how to use the minimum startup capital is a directive from BOG

3.7 Financial technology

The use of financial technology (fintech) in the financial sector did not start recently but many years ago. In 1949, Diners Club established the first general purpose charge card, enabling its cardholders to purchase goods and services from many different merchants in what soon became a nationwide network (D. Akers, 2005).

The first credit card that became successful was introduced in the late 1950s. Bank of America, located on the West Coast (California), began the first general purpose credit card (as opposed to charge card) programme (D. Akers, 2005). The bank was able to convince its members to use the

card and also were able to convince the merchants to accept the cards as a medium of exchange. Financial technology has now spread all over the world with different inventions of new fintech throughout financial institutions in the world.

Financial institutions in Ghana have also adopted the fintech in their daily operation. Today, most of the financial institutions in Ghana are using fintech such as automatic teller machine (ATM), Mobile money transfer(MMT), E-Zwich, Master card, etc. E-zwich international remittance platform was introduced by Ghana Interbank Payment and Settlement Systems (GhIPSS) in 2016 to enable businesses and individuals to transfer remittances from Europe and North America directly onto their E-zwich cards (Bank of Ghana report, 2016).

Mobile money transfer is the most popular fintech used by most of the financial institutions including the MFIs in Ghana. MTN was the first telecommunication company (telecom) to introduce the MMT before other telecom companies like Vodafone, Tigo and Airtel, joined. These companies provide mobile money services such as MMT, payment of bills, school fees, payment of employee salaries, air time etc.

The number of registered mobile money customers have increased in recent years according to BOG. The number of registered mobile account customers at the end of 2016 was almost 20 million, which shows a growth of 50.4 per cent from 2015 (Bank of Ghana report 2016). The number of active mobile money accounts increased by 70.8 per cent, to 8,3 million in 2016. Total value of mobile money transactions increased to more than GH¢78 billion in 2016 which represent 121.5 per cent growth over the 2015 position (Bank of Ghana report 2016). The figures continued to increase again in 2017. The number of registered mobile accounts increased from 19,7 million to 23,9 million in 2017 representing 21.3 percent increase from the precious year (Bank of Ghana report 2017). The number of active mobile money accounts also increased by 33 percent from 8,3 million in 2016 according to BOG 2017 report. All of these recent reports from BOG shows that MMT is performing very well in Ghana.

CHAPTER 4

4.1 Research questions

1. How does the increase in minimum capital requirement influence the sustainability of microfinance institutions in Ghana?
2. How does clients' credit worthiness influence the sustainability of microfinance institutions in Ghana?
3. In what ways do telecommunication money transfers influence the sustainability of microfinance institutions in Ghana?

4.2 Research Hypotheses

Due to the objectives and the research questions stated above, three hypothesis shall be constructed and analyze to examine if the increase in minimum capital requirement, the uses of financial technology in our financial sector and client credit worthiness has an influence on the sustainability of MFIs.

- i. The hypothesis shall be tested to find out if the implementation of minimum capital requirement has an effect on the sustainability of MFIs.

H₀: Increment of minimum capital requirement has no effect on sustainability of MFIs

H₁: Increment of minimum capital requirement has a negative effect on sustainability of MFIs

- ii. The hypothesis shall be tested to determine if financial technology has an effect on the sustainability of MFIs.

H₀: The use of financial technology by the MFIs has no effect on its sustainability.

H₁: The use of financial technology by the MFIs has effect on its sustainability.

- iii. The hypotheses shall be tested to determine if clients' worthiness has an influence on MFIs sustainability.

H₀: clients' worthiness has no effect on MFIs in Ghana

H₁: clients' worthiness has influence on the sustainability of MFIs in Ghana

CHAPTER 5

RESEARCH METHODOLOGY

5.1 Research design

Descriptive survey was used for this research. Descriptive survey is one of the methods of descriptive research. Information on a particular phenomenon can be obtained by using a descriptive survey. In a survey method research, respondents answer questions in a questionnaire or interview guide and the researcher describe the response given. This method was used by Wanjiru, R. (2000) to explain factors that influence productivity of credit officers in Micro Finance Institutions and was also used by Wanjiku (2017) to study factors influencing the sustainability of microfinance institutions in Murang'a town, Kenya.

Descriptive research has its own limitation. One of the disadvantages of this research is that it is not helpful in identifying causes behind descriptive phenomenon and some of the descriptive studies are not repeatable due to its observational nature (Ethridge, D.E. 2004).

5.2 population of study

The research population comprises of all the managers of the various MFIs in Ashanti region of Ghana.

5.3 Sampling procedure and sampling size

Two sampling procedure were used to select the MFIs and managers of the various MFIs. Random sampling was being used to select the MFIs that ware in operation in Ashanti region out of the 566 registered MFIs in Ghana and purposive sampling was used to select the managers of the MFIs. This sampling method was used because managers have more knowledge and information on day to day running of the MFIs than the other workers.

5.4 Data collection tools and instrument

Due to the nature of this research, both primary and secondary data were collected. Qualitative data were collected by using questionnaires and interview guide (see appendix). From the questionnaires, a series of questions written on a sheet of paper were given to the head of the various MFIs for them to provide answers to those questions and they were guided when the need arised. In the case of the interview, there was a conversation with the managers in each of the selected MFIs in the region. Both questionnaires and interview guide address the objective of the study.

Secondary data were also collected from books, reports and newspaper which were used to support the primary data.

CHAPTER 6

Data Analysis

6.1 Introduction

This chapter presents the findings from the data collected from the field work. It also present the data necessary to answer the research questions in this work This data was collected from the managers of the eight MFIs which are currently operating in the Ashanti region of Ghana.

6.2 Biographic Data

This section gives a brief description of the MFIs by looking at the duration they have been in operation, number of workers, number of branches and how they are being financed.

Table 6.1. The number of years the firm has been operating in Ghana

Name of MFIs	Years in operation
Planet MFI	5-10
Dynasty	6-10
MGI	11-15
Appiaduman	6-10
Talent	6-10
Ponto Cash	6-10
Royal Miri	6-10
Cash MFIs	15years and above

The table shows the duration the firms have been operating in Ghana. The majority of the firms have been operating for two years as shown by the table with six MFIs. Only one firm has been in operation for one year and the highest number of years a firm has been in operation is 4years.

Table 6.2: The number of employees employed by the firms

Number of workers	Frequency	Percentage
0-5	1	12.50
6-10	1	12.50
11-15	3	37.50
Above 15	3	37.50
Total	8	100.00

The study sought to find out the number of workers employed by the MFIs in Ghana. From table 6.2 three of the firms have 11-15 employees and three firms have 15 and above employees .Only one firm have 0-5 employees. One out of the eight firms have 6-10 employees. Six out of the eight MFIs have more than ten workers.

Table 6.3: The number of branches across Ghana

Number of branches	Frequency	Percent
0-3	4	50.00
4-6	0	0.00
Above 6	4	50.00
Total	8	100.00

The table above shows the findings on the number of branches that each MFI have in the entire country. From the study, four out of the eight MFIs have a number of branches that fall between 0-3 and the remaining four MFIs have more than 6 branches. The study also shows that none of the MFIs have a number of branches which fall between 4-6 branches.

Table 6.4: How the MFIs is being financed

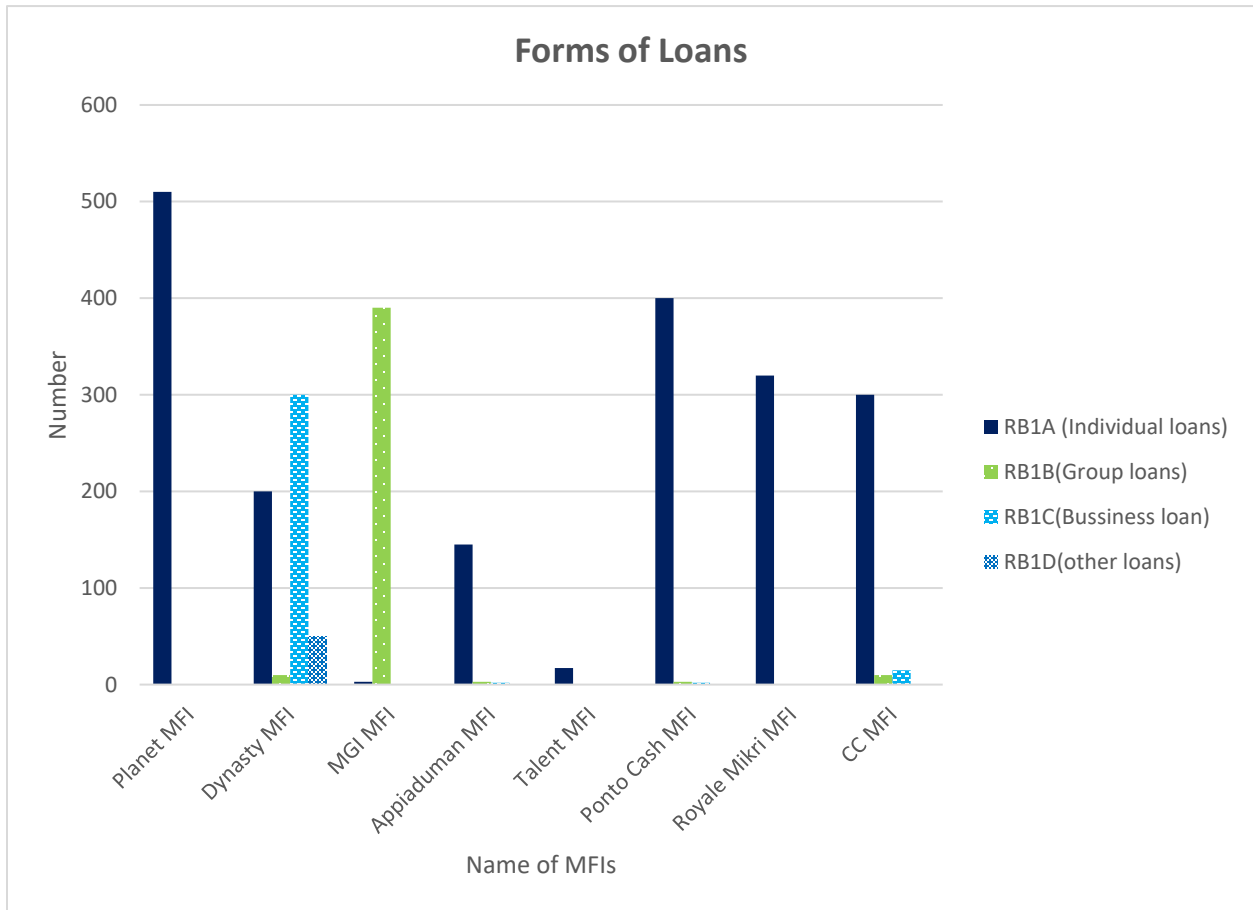
Type of finance	Frequency	Percent
Private owners	7	87.5
Customers Deposit	1	12.5
Total	8	100

The table above indicate how the MFIs are being finance with either capital from private investment or capital from the deposit they received from their customers. According to the data, seven out of the eight MFIs are being financed with the capital from its owners. Only one out of the eight MFIs is being financed with the deposit they received from their customers

6.3: Types of clients and loans offered, and client's ability to return credit

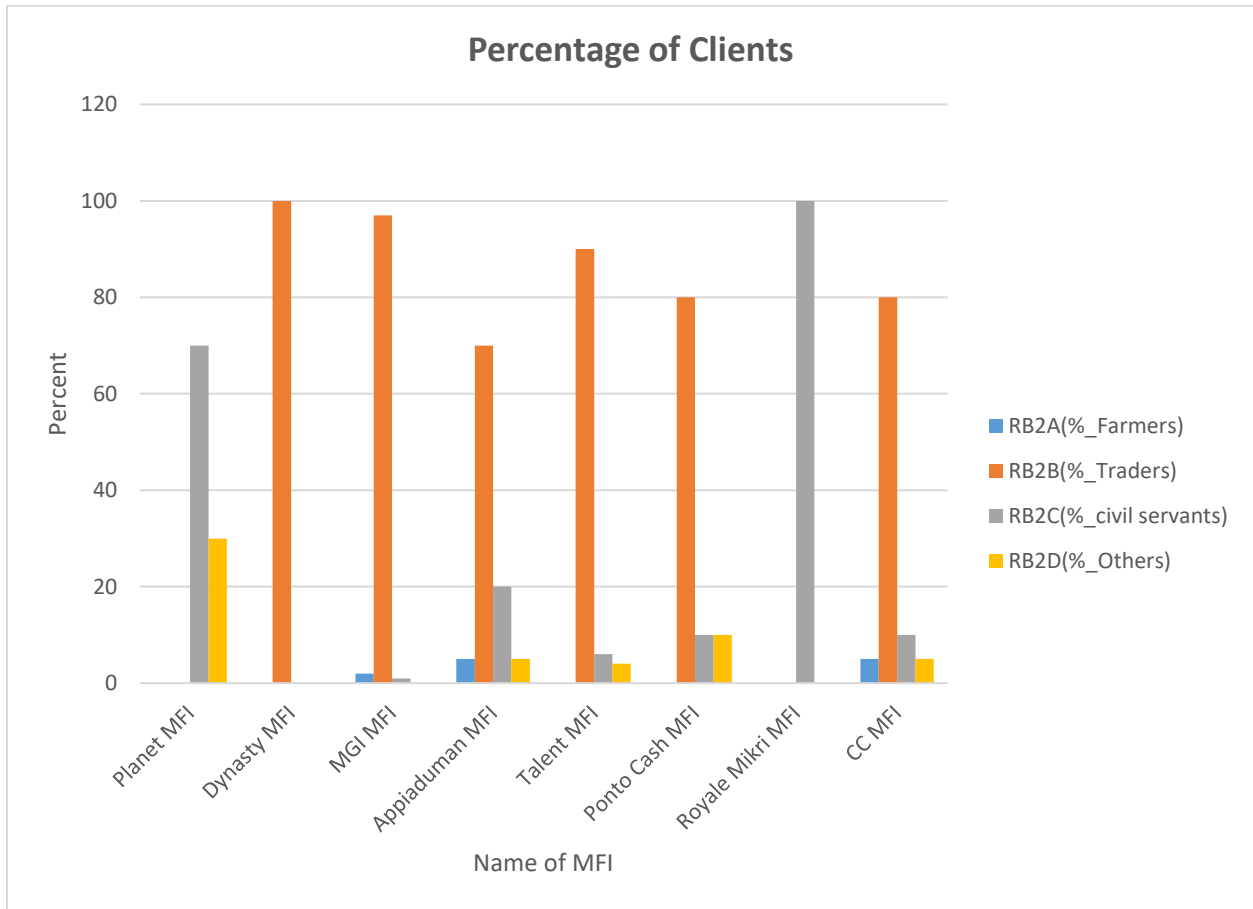
This section deals with the type of clients each MFIs serves, the type of loans they offer their clients and their ability to pay back the loans.

Figure 6.1: Forms of loans given to customers.



The respondents were asked to indicate different forms of loans they give to their customers. Three of the MFIs give only one type of loan (individual loans). One of them gives two forms of loans (group loans and individual loans). Three of them give three forms of loans which are individual, group and business loans. Only one of the respondent give all the three forms of loans and other additional loans. Most of the MFIs give more than one form of loan as indicated by the respondents.

Figure 6.2: Percentage of loans given to different types of customers



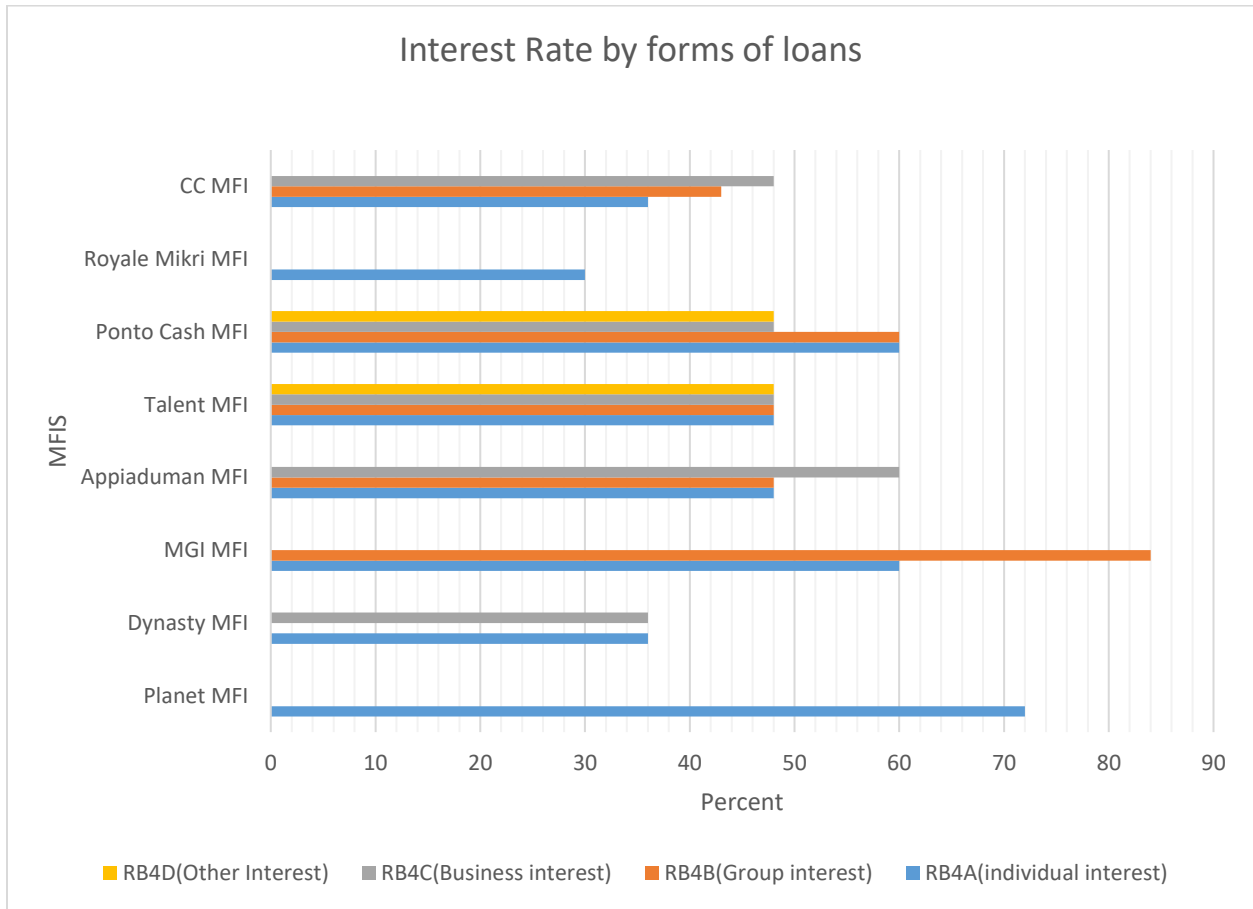
The respondents were asked to indicate the percentage of their loans they give to different types of customers such as farmers, traders, civil servants and others. The results show that, six out of the eight MFIs give the majority of their loans to traders and two of them give greater percentage of their loans to civil servants. Only one MFIs does not give loans to civil servants. Only three out of the eight MFIs give loans to farmer because the risk level of given loans to farmers is high as responded by the managers of the MFIs. This means that five out of the eight MFIs does not give loans to farmers at all. The three MFIs give the least percentage of their loans to these farmers which means that farmers find it difficult to get loans from these MFIs. Traders receive most of the loans from these MFIs, while civil servants is the second biggest recipient group. One MFIs gives loans only to civil servants and another MFI gives loans to traders only.

Table 6.5: Minimum and Maximum loans offered by the MFIs in Ghana cedis (GHS)

Microfinance institutions	Minimum Loans(GHS)	Maximum Loans(GHS)
Planet MFI	500	5000
Dynasty	500	5000
MGI MFI	500	20000
Appiaduman MFI	500	25000
Talent MFI	1000	100000
Ponto Cash MFI	500	5000
Royale Mikiri MFI	1000	20000
CC MFI	8000	50000

In order to find out the minimum loans given by these MFIs, the respondents were asked to state the minimum loans they give to their customers. The table above shows that five of these MFIs give 500 Ghana cedis as their minimum loans. The highest minimum loan is 8000 Ghana cedis. The lowest maximum loan is 5000 Ghana cedis and the highest loan is 100000 Ghana cedis. Three of them gave 5000Ghana cedis as their maximum loan.

Figure 6.3: Interest rate charged on different forms of loans



The respondents were asked to provide the interest rate they charged on different forms of loans. From the respondents, the highest interest rate is 84 percent per year charged on group loan by one of the MFIs and the lowest is 30 percent per year charged on individual loans per year. Group loans have the highest average interest rate looking at all the interest rates charged by the various MFIs on group loans followed by individual loans. CC and Appiaduman MFIs charge high interest rate on business loans and lower interest rates on group and individual loans, which have the highest interest rate from the rest of the MFIs. The amount of interest charged depends on how risky the MFI sees their clients, especially clients like farmers are charged with high interest rate. The managers explained that the interest rate they charge depends on how the various MFIs see different risk on a particular client.

Table 6.6: Percentage of loan default by MFI

Microfinance Institutions	Loan default rate (%)
Talent MFI	25
Planet MFI	20
CC MFI	15
MGI MFI	10
Appiaduman	6
Ponto Cash MFI	2
Royale Mikri MFI	1
Dynasty MFI	0.5

Comparing the percentage of loan defaulters from the responses of the various MFIs, the highest default rate is 25 percent and the lowest default rate is 0.5 percent. The average default rate is 9.9 percent. It can be seen from table 6.3 and 6.4 that most of the MFIs with the highest interest rates also have high default rates.

6.4 Loan default rate and its effects on MFIs in Ghana

All managers of the various MFIs responded that loan default has negative impact on their sustainability since it reduces their profit and is a threat to the continuity of the MFIs.

6.5: Financial technology and its effects on MFIs sustainability.

I asked the 8 MFIs what type of financial technology they have adopted and how the introduction of the technology in the financial sector has influenced their sustainability.

Table 6.7: Type of Financial Technology adopted by MFIs

Microfinance Institutions	Type of financial technology used by MFIs	Number of different technologies
Talent MFI	SMS Alert	1
Planet MFI	Mobil money transfer	1
CC MFI	Mobil money transfer	1
MGI MFI	Mobil money transfer	1
Appiaduman	Mobil money transfer, Internet services.	2
Ponto Cash MFI	Mobil money transfer, ATM, Software	3
Royale Mikri MFI	Software	1
Dynasty MFI	Mobil money transfer	1

The respondents were asked to indicate the particular financial technologies they have adopted. Only one of them is using ATM. Seven of them uses mobile money transfer, making it the highest financial technology being used by the respondents. Two of them are using software for keeping their data in their daily operations. Internet service and SMS alert are being used by only one MFIs.

Table 6.8: MFIs contracts with telecom companies and its effects on their profit margin and sustainability.

Microfinance Institutions	The number of Financial technology	The number of contracts with telecommunication company	Partnership with Telecom improvement on your profit margin	Mobile money transfers has negative effects on MFIs sustainability
Talent MFI	1	1	Yes	Disagree
Planet MFI	1	1	Yes	Disagree
CC MFI	1	3	Yes	Strongly disagree
MGI MFI	1	1	No	Strongly agree
Appiaduman	3	2	Yes	Disagree
Ponto Cash MFI	3	2	Yes	Disagree
Royale Mikri MFI	1	1	Yes	Disagree
Dynasty MFI	1	1	Yes	Disagree

The above table shows that, five of the MFIs have contracts with only one Telecom Company and two of them have two different contracts with two different telecom companies. Only one of them have contracts with three different MFIs. Seven of the MFIs agreed that their partnership with the telecom companies have improved their profit margin and also disagree that mobile money transfer has a negative effects on their sustainability. Only one strongly agree that mobile money transfer has a negative effect on their sustainability.

6.6: Stipulated increased in minimum capital requirements and its effects on the sustainability of MFIs.

The respondents were interviewed on how the recent increment in the starting capital (the minimum amount of capital a MFIs should have before they can be given the license) to operate as MFI will affect their sustainability.

Table 6.9: Fulfilment of the minimum capital requirement and its effects on MFIs sustainability.

The MFIs were asked if they have been able to pay their minimum capital imposed to them by Bank of Ghana and its effects on their sustainability.

Microfinance Institutions	Payment of minimum capital requirement	Impact of an increase in minimum capital on MFIs sustainability.
Talent MFI	No	Negative
Planet MFI	Yes	Negative
CC MFI	Yes	Positive
MGI MFI	Yes	Negative
Appiaduman	No	Negative
Ponto Cash MFI	Yes	Negative
Royale Mikri MFI	Yes	Positive
Dynasty MFI	Yes	Negative

The table above shows that six of the MFIs have been able to pay the minimum capital require by Bank of Ghana and two of them have not been able to pay. Six MFIs responded that the increment of the minimum capital has a negative effect on their sustainability and two of them responded that it will have a positive effect their sustainability.

CHAPTER 7

RESULT OF THE RESERCH

7.1 The effects of loan default on the sustainability of MFIs

In chapter 5 we saw a great variation in the default rates between the different MFIs. Talent MFIs had as high as 25 percent default rate followed by Planet MFIs with 20 percent default rate. In the other end of the scale, Dynasty, Royale Mikiri and Ponto Cash MFIs had as low as 0.5, 1 and 2 respectively. These three MFIs with low default rates explained that they have been selective in giving out of loans based on their past records. Royal Mikri explained that they no longer give loans to other clients apart from civil servant where they can deduct the loans from their salary from controller and accountant general.

The average default rate of the eight MFIs is 9.9 percent which is greater than the 4.3 default rate of all the deposit taking financial institutions in Ghana (Bank of Ghana annual report, 2017). Five out of the eight MFIs have their default rate greater than the BOG default rate in 2017.

All the eight MFIs responded that loan default has a negative impacts on the sustainability of their MFIs. The outcome of this research is in line with the research than by Mungure (2015) and Dadzie et al (2012) which concluded that loan default has a negative impacts on the activities of MFIs.

7.2 The effects of financial technology on the sustainability of MFIs in Ghana.

The data from chapter five indicate that all the eight MFIs are using at least one financial technology in their daily operation. The financial technology that was being used were SMS alert, software to for data storage, internet service and mobile money transfer. Only one MFI uses the SMS alert, another one also uses the internet and two of them uses the software to store their data .The most common financial technology used buy all of them, is the mobile money transfer.

Seven of the MFIs responded that the introduction of mobile money transfer has improved their profit margin because they were not previously involved in money transfers, they have now taken advantage of the mobile money transfers and are therefore getting revenue from it. The other MFI responded that they were doing their own money transfers before the introduction of the mobile money transfer. Even though they have not lost their customers, they now have to share the profit

they earn from the money transfer with the telecommunication companies since they have forgone their own money transfer and adopted the mobile money transfer.

In terms of their sustainability, seven out of the eight MFIs responded that financial technology such as mobile money transfer have a positive impact on their sustainability. They even continue by saying that since there is a limited amount of money one can save and transfer on their mobile wallet, mobile money transfer cannot reduce their deposit.

7.3 The impact of high minimum capital requirement on the sustainability of MFIs in Ghana.

Five out of the eight MFIs have been able to pay their minimum capital required by BOG the other three MFIs haven't paid. They responded that they are struggling to pay and they don't even know if they can meet the deadline. The BOG confirmed in their report that only 32 out of the 566 MFIs in Ghana have been able to pay the minimum capital required by BOG as at 31st December 2017 and the deadline was June 2018. Those three MFIs institutions who have not been able to pay are not sure if they could meet the deadline and they have to shut down if they cannot meet the deadline. Meanwhile those MFIs which have been able to meet the minimum capital requirement are not happy by the directive from bank of Ghana on how to use the minimum payed up capital to run the microfinance institution.

Six of the MFIs responded that the new minimum capital will have a negative impact on their sustainability and the remaining two responded that it will have a positive impact on their sustainability. According to the two MFIs, the increment of the minimum capital will collapse many MFIs and if they are able to pay they will face less competition which will help them to get more customers and increase their profit margin.

CHAPTER 8

Summary, Conclusion and Recommendation

8.1 Summary

The study was set find factors that influence the sustainability of MFIs in Ghana. MFIs that are currently operating in the Ashanti region of Ghana was taken as a case study.

Minimum startup capital has an influence on the sustainability of MFIs. The research found that some the MFIs have not been able to fulfil the minimum capital requirement of bank of Ghana while others have left business as a result of it.

Majority of the institutions were having high default rate and were charging high interest rate. The institutions were also being selective on given loans to their clients. The managers responded that loan default has an effect on MFIs.

All the MFIs are using fintech in their operation. The MFIs have taken advantage of the MMT and it has increase their profit margin.

8.2 Conclusion

Based on the findings from the research, the following conclusions are made on the factors affecting the sustainability of MFIs in Ghana.

The new minimum capital required by Bank of Ghana, which is higher than the previous, have affected the sustainability MFIs in Ghana. The increment of the required capital has affected the MFIs negatively and is a threat to their sustainability. This will probably lead to the collapse of many MFIs if BOG still go by it. The reason being that most of them are not able to provide the payed up capital. The MFIs that are able to pay and will remain in business, might improve their sustainability due to decreased competition.

The research also find out that client worthiness has an impact on the sustainability of MFIs in Ghana. Even though few of the institutions were having extremely low interest rate yet their average is higher than the rate provided by BOG report in 2017 of all the financial institutions in

the country. This means that loans default rate of the MFIs have a negative impact on their sustainability.

The introduction of financial technology such as the mobile money transfer seem to have an influence on the sustainability of MFIs in Ghana. According to the findings of this research, the introduction of mobile money by the telecommunication companies has improved the profit of most of the MFIs since all of them have taken advantage of it to improve their business.

8.3 Recommendation

Based on the findings emanating from the study, the following recommendations are made.

1. Bank of Ghana being the regulatory body should concentrate on the supervision of the MFIs rather than the continued increments of the minimum capital requirement, since a MFI can fulfil the startup capital but still operate wrongly. BOG should rather make sure that the MFIs operate within rules and guidelines from BOG.
2. Bank of Ghana should change their rules in order for the MFIs to be able to using all their minimum capital to run their business rather than keeping some percentage at the commercial banks.

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APPENDIX
FIELD WORK QUESTIONS

This survey is designed to collect information from different MFIs in Ghana, Ashanti region to assess how the increase in minimum capital requirement affects the sustainability of these financial institutions. The survey will also be used to assess how MFI have enhanced client credit worthiness and how institutions have been able to manage credit risks. The survey also address how implementations of telecommunication technology improvement have contributed to MFIs sustainability. It is also in partial fulfillment of the award of a master's degree in Economics at the School of Economics and Business, Norwegian University of Life Science. Information collected during the field work shall be treated confidentially and used entirely for academic purposes. I therefore, implore respondents to provide the right and accurate responses to these questions.

Thank you for your time and cooperation.

Date of interview: Date.....Month.....Year Time
 started.....

Interviewed by:..... Time
 finished.....

Respondent ID.....

Section A: General information on MFIs

1	Name of MFI	
2	Years in operation [1] 0-5 [2] 6-10 [3] 11-15 [4] 16-above	
3	Location of MFIs Urban=1, Rural=0	
4	Location of HQ MFIs Urban=1, Rural=0	
5	Number of workers [1] 0-5 [2] 6-10 [3] 11-15 [4] 16-above	
6	Number of customers [1] 0-50 [2] 51-100 [3] above 100	
7	Number of branches [1] 0-3 [2] 4-6 [3] above 6	

SEACTION B. Types of clients and loans offered, and client's ability to return credit.

This section illustrates MFIs ability to manage credit risks and shows the rate of client retention of credit. The information was collected from different MFIs in Ashanti region in Ghana.

1. In 2017, how many loans did you give to?

1. Individuals () 2. Groups () 3. Businesses () 4.Others,Specify ()

2. How many percentage of your clients are?

1. Farmers (..... %) 2.Traders (..... %) 3. Civil Servants (..... %) 4. Others (..... %)

3. Maximum and minimum Loans offered [GHS]

1. Minimum (.....) 2. Maximum (.....)

4. Percentage of interests charge on loan given to

1. Individuals () 2. Groups () 3. Businesses () 4.Others, Specify ()

5. What percentage of your clients failed to pay the loans?

6. What action is being taken by your MFI if a client failed to pay the loan?

.....

7. Do you see the inability of clients to pay the loans as a threat to the sustainability of this MFI?

1. Yes () 2.No ()

8. What is the major economic problem for your MFI in order to continue providing services?

SECTION C: Financial technology and its effects on MFIs sustainability.

1. Which of these financial technology have you adopted in 2017(you can tick more than one)

1. ATM () 2. Telecommunication Money transfer () 3.non () 4. Any others? (Please specify).....

2.How long have you been using this technology?

3. How has this influenced your daily operation?.....

.....
.....
.....
.....

4. Do you have a contract with telecommunication Company?

1. Yes () 2. No ()

5. Specify the telecom

1. MTN () 2. Airtel () 3. GLO 4. () 4. TIGO. () 5. any others? (Please specify)

6. Has the partnerships with telecoms Improved your profit margin?

1. Yes () 2.No ()

6 7. Do you agree that telecommunication money transfer has a negative effect on the Sustainability of your MFI?

1. agree () 2.strongly agree() 3.disagree() 4.strongly disagree ()

INTERVIEW GUIDE

RQ 1

1. How is this MFI financed?
2. Have you met the stipulated increased minimum capital requirements? If not why?
3. How has it affected the institution both positive and negatively?
4. Has the increase in minimum capital requirement affected competition with other MFIs? If yes or no how?
5. How had increased minimum capital requirement affected the MFI sustainability?

RQ 2

6. What are other methods and techniques employed to manage credit risks and enforce sustainability?
7. How effective are the methods and techniques adopted by your MFIs?

RQ 3

8. What are some the challenges you faced with the use of financial technology?



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