

## **ASHESI UNIVERSITY COLLEGE**

**SME Financing: Crowdfunding vs Microfinance** 

Ву

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Thesis submitted to the Department of Business Administration, Ashesi University College in partial fulfillment of Bachelor of Science degree in Business Administration.

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# **DECLARATION**

| r hereby declare that this thesis is the result of my own original work and that no part of it |
|--|
| has been presented for another degree in this university or elsewhere.                         |
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### **ABSTRACT**

The aim of this thesis is to investigate whether crowdfunding could replace microfinance as a better funding alternative for SMEs (Small to Medium Scale Enterprises) in Ghana. It also serves as a guide for potential crowdfunding institutions that would be interested in knowing the motivations SMEs have for choosing their financing methods. The key words that were where investigated and guided the entire study were SMEs, Crowdfunding and Microfinance

The study then compares financing preferences of SMEs with the structures available in microfinance institutions and crowdfunding institutions. The study used Pearson's Chi Square test to test significance of relationships of variables in the questionnaires that were posted, and used factor analysis to drive to conclusions from themes generated by the factors.

It was concluded that SME incentives did coincide with what crowdfunding offered but failed in guaranteeing speed of funding which was dependent on those willing to fund you. That would be a limiting factor in a country like Ghana where speedy access to capital is a requirement. It was also concluded that due to the volatility of the financial services industry in Ghana, SMEs were not looking for a specific structure but rather a financing method that was quick and cheap.

Finally it was recommended that a larger data set is necessary to increase the reliability of results.

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#### **CHAPTER 1**

#### INTRODUCTION

### 1.0 Background of Study

Muhammed Yunus started the Grameen Bank Project in 1976, in order to target the poor that were unable to apply for loans from banking institutions because of their lack of collateral. The loan structure was started as a means to empower women. Five women from a village determine how large a loan each member gets and act as guarantors. If even one member is delinquent, no new loans are issued. Group members apply pressure — and support — that has kept repayment rates near 100 percent (AP, 2012). This loan structure was then coined "Microfinance".

Four years ago, Lee and David (2010) stated that, there was an epidemic of suicides in India because recipients of microfinance, were un-able to pay for the loans that were given to them. According to these authors, in the rural town of Andhra Pradesh, there were 14,364 suicide cases that were recorded out of the 57 million people that live in rural areas, in the first nine months in 2010. One story tells of an 18 year old girl that drank a pesticide because she was pressured to give in her examination fee to pay back part of her loan.

"The rule of thumb for a loan should be the cost of funds plus 10 percent" which was what microfinance institutions charged when they first started, however, the global average

interest rate is estimated at 37% with rates reaching as high as 70% in some markets (Microcredit and Grameen Bank, 2014) and the Grameen Bank rates were 20%.

It has been speculated that there has been a commercialization of microfinance institutions since the naissance of the Grameen bank in 1983. Halloway (2011) states that, microfinance institutions that originally started as non-profit, are transforming into licensed banks and non-bank financial intermediaries. Since such banks, as part of their physical make up, do not have collateral as insurance, in order to attract shareholders, they needed to raise interest rates and participate in aggressive marketing and loan collection, specifically in developing countries where microfinance institutions are popular.

The initiative then, as pioneered by Muhammed Yunus, which was to help eradicate poverty through the use of micro lending, has been completely saturated by an influx of microfinance institutions that are looking for funding by charging high interest rates to get back returns. The justification for this is that commercialization is the only way to attract money needed to expand the outreach (Halloway 2011). Considering the vast contribution of microfinance institutions to the GDP of countries in the developing world, it begs the question as to whether, rather than creating a sustainable economy, such institutions are aiding in hindering them.

Evidently, micro financing is not the only type of funding that is available. Crowdfunding on the other hand, is an incredibly new phenomenon that has made its mark in the rapidly changing technological world. It is defined as raising money via an internet appeal, where a great number of donors fund a variety of projects from different industries. Below is the typical process of how crowd funding works, as recorded by Collins (2014).

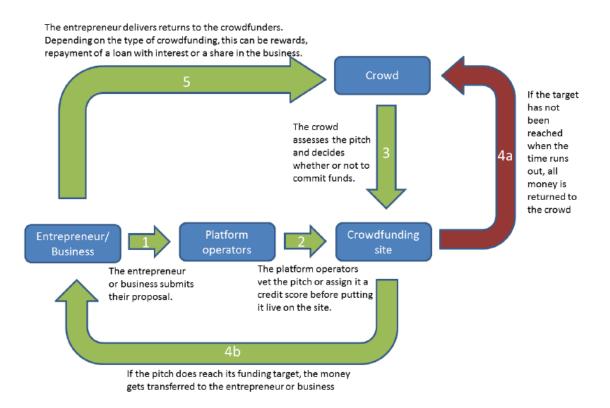


Figure 1: The process of crowd funding

Source: Collins 2014

Currently, Ghana has 67 projects that have been posted on Kickstarter.com, a popular crowd funding site. 59 of them have been funded to a success rate of 100 plus percent and only eight have been unsuccessful (Kickstarter, 2014). In Indiegogo.com there have been 26 Ghanaian projects that have been placed on the platform that are still undergoing funding (Indiegogo, 2014). For crowd funding platforms like these the success rates and the fees are as shown in Table 1 below.

Table 1: Rates and fees of crowd funding sites

| INDIEGOGO- 25934 projects                                  |                               | KICKSTARTER- 27787 proj      | ects                            |
|--|-------------------------------|------------------------------|---------------------------------|
| Choose between flex funding and fixed funding. Creators    |                               | All Kickstarter campaigns    | are all-or-nothing. Kickstarter |
| must make their goal to receive their donations if they    |                               | takes 5% of donations if the | project succeeds.               |
| choose the Fixed Funding option. Indiegogo takes 4% if the |                               |                              |                                 |
| project makes a goal, no ma                                | atter what. If a Flex Funding |                              |                                 |
| project doesn't make its goal, though, Indiegogo takes 9%. |                               |                              |                                 |
| Flex Funding-25465 projects                                | Fixed funding-469 projects    | 0%: 3476 (12.5%)             | 61-80%: 185 (.67%)              |
| 0-25%: 18232 (71.60%)                                      | 0-25%: 355 (75.69%)           | 1-20%: 10631 (38.29%)        | 81-99%: 80 (.29%)               |
| 25-50%: 2534 (9.95%) 25-50%: 0 (0%)                        |                               | 21-40%: 1755 (6.3%)          | 100+%: 11091 (39.91%)           |
| 50-75%: 1266 (4.97%) 50-75%: 0 (0%)                        |                               | 41-60%: 569 (2.05%)          |                                 |
| 75-100+%: 3433 (13.48%)                                    | 75-100+%: 114 (24.31%)        |                              |                                 |
| 1  | 1                             | 1                            | 1                               |

Source: Renninger 2013

Key: Where 0% - 25% represents the percentage of money donated towards the project It is also to be noted that the crowd funding "bug" has also hit the Ghanaian market. There a Ghanaian companies that are adopting the crowdfunding model and they are as follows:

SliceBiz: a crowd funding platform that leverages Web/mobile (& offline) platforms to create a connection between startups looking for funding and business-savvy young professionals/middle class looking to invest (Kaufman, 2013).

Farmable: a crowd funding platform that aims to create a new form of global collaborative farming called 'Crowdfarming', a self-sustaining enterprise that empowers small holder farmers in Ghana to fight hunger without reliance on external aid or charity. (Brennan, 2014).

Getmefund: a crowd funding platform for creative projects. Everything from social, health, sponsorship, political, films, games, and music to art, design, and technology projects that are deemed creative (Addae, 2013).

With platforms such as these coming up, is it possible that the appeal of microfinance institutions, which meet similar needs, may dwindle over time?

#### 1.1 Problem Statement

G. D. Gyamfi (2012) stated in his paper that, in the period between 2003 and 2007, SME's in Ghana were contributing up to 30% of GDP, which could only happen due to microfinance loans supporting their operations. However, "preliminary studies conducted revealed that one major problem that affected the microfinance institutions were difficulties pertaining to the recovery of credits granted" (Gyamfi, 2012). Of course, if interest rates are high and they are not insured by physical collateral, it would be difficult to collect the credit back from SME's and student start-ups alike.

The current population of Ghana stands at 25.9 million as of 2014. GDP of Ghana stands at 47.63 billion dollars (Worldbank, 2014). It is stated that SME's generate about 50% of the national output and provide about 60% of employment to Ghanaians (Hayford 2012). The number of SME's is only going to increase and alternative ways of funding, need to be explored incase microfinance fails to help SME's reach their economic potential. As the middle income class rises, more people can have access to technology especially access to internet usage. In 2004, the Ghana government ratified and adopted an ICT policy -Information and Communication Technology for Accelerated Development (ICT4AD). The purpose of the ICT4D was to create the critical drive and strategies to

harness the full potential of ICT for the socio-economic development of the country (Quarshie, 2012).

The table below illustrates the increase in internet usage from 1999 to 2011

| YEAR | Users     | Population | % Pen. | Usage Source |
|------|-----------|------------|--------|--------------|
| 2011 | 2,085,501 | 24,791,073 | 8.4 %  | ITU          |
| 2010 | 1,297,000 | 24,339,838 | 5.3 %  | ITU          |
| 2009 | 997,000   | 23,887,812 | 4.2 %  | ITU          |
| 2008 | 880,000   | 23,382,848 | 3.8 %  | ITU          |
| 2007 | 609 800   | 21 801 662 | 2.8 %  | ITU          |
| 2006 | 401,300   | 21,501,842 | 1.8 %  | ITU          |
| 2005 | 368,000   | 21,029,850 | 1.6 %  | ITU          |
| 2001 | 40,500    | 19,101,878 | 0.3 %  | ITU          |
| 2000 | 30,000    | 18,881,600 | 0.2 %  | ITU          |
| 1999 | 20,000    | 18,599,549 | 0.1 %  | ITU          |

Figure 2: Population Growth and Internet Usage in Ghana

Source: Quarshie (2012)

Figure 2 demonstrates a 10,327.5 percent increase in the population growth and Internet usage in Ghana in the space of 12 years. As of 2011, 8.4% of the population had access to the internet. In 2014, internet users increased to 5,171,993 out of a population 26,442,178. The growth is slow but evident and so the introduction of new funding systems that patronize the internet are theoretically feasible, if penetration continues to increase at this rate (Internet Users by Country 2014).

It is stated that crowd funding platforms like Kickstarter that have a 44% success rate (success rate being measured as over half of the project was funded irrespective of the

fee structure), when it comes to providing funding for entrepreneurial projects. 39% of that figure meet their funding target within the allotted number of days (Hillier, 2013). Since the funding structure requires less of a financial obligation than microfinance, which is an appealing advantage to SME's. So could crowdfunding platforms be a better alternative for formal sector SME's in Ghana than microfinance institutions?

#### 1.2 Research Questions

- What are the types of financing options available for SME's?
- What motivates SME's to choose one financing option available to them over another?

## 1.3 Objectives of Study

The main objective of the study is to investigate if crowdfunding could be a better option for SME's in developing countries over microfinance institutions. The way to achieve this would be to;

- Define the structures and background for Microfinance and Crowdfunding Institutions.
- 2. Identify the motivation for SMEs for choosing specific financing options.
- Find out if Micro financing and Crowdfunding Institutions as they exist are able to satisfy the expectations that motivate SMEs to choose them
- 4. Draw conclusions for the preferred financing option for SME's in Ghana.

### 1.4 Significance of Study

Confidence in banking institutions to provide a substantial loan to small to medium scale enterprises. This was due to a number of factors including the financial crises that affected majority of countries worldwide. Other than the physical collateral that was needed, there was a lot of paperwork required that would only lead to a partial loan being sourced.

Finding a favorable financing structure is important to the development of every developing economy, including Ghana. The perception globally is that, microfinance institutions seem to have lost the core reason for their existence, which was to give the poor access to credit so that the cash they earn will help them unlock their full potential (Reuben 2007).

Since Ghana has a multitude of micro financing institutions, it is necessary to assess whether they are helping to bridge the gap between the poor and the lower middle income class, by helping small businesses help themselves or if they are not.

This study will also help inform microfinance institutions of the weakness or flaws in their systems and an indication of what their customer segment it looking for when sourcing a loan.

#### 1.5 Structure of Thesis

Chapter 1 of the study shall be the introduction that will include; the background of the study, the problem statement, the objectives of the study, the research proposition and the significance of the study. The components will explain my interest in the topic and how I derived at the research question.

Chapter 2 shall be a comprehensive analysis of the literature that relates to my research topic, and a theoretical framework shall be drawn that will form how the methodology shall be tackled.

Chapter 3 shall look at the methodology of the research design and how it will help meet the objectives of the study. It shall include the instruments that shall be used to collect the data and the justification of these instruments.

Chapter 4 shall include a profound analysis of the data with regards to crowdfunding and microfinance.

Finally Chapter 5 shall include conclusions drawn about the study and any necessary recommendations.

#### **CHAPTER 2**

#### LITERATURE REVIEW

### 2.1 The Small and Medium Enterprises (SME) Challenge

#### 2.1.1 Defining Small to Medium Scale Enterprises (SMEs)

Small to Medium Scale enterprises. They are inbetween micro enterprises and large enterprises. Because of this, the challenges they face could be atypical to the extreme ends of the scale. Evidently, SME's play an enormous role in the economy. Agbozo (2012) claims that they create jobs and that even in developed industrial economies, they are the largest employers. Because of this, governments around the world have undertaken initiatives to protect SME Growth. He further added that, in most African countries, they represent over 90% of private businesses and contribute up to 50% of employment. In Ghana alone SME's contribute to 70% of her GDP and account for 92% of businesses.

One significant reason for the financing challenge is there is no universal standard for SMEs. The term SME encompasses a broad spectrum of definitions across countries and regions (IFC, 2010). The European Union defines SMEs as firms with 10 to 250 employees with less than Euro 50 million in turnover and Euro 43 million. In Thailand, SMEs are companies whose revenues range from US \$84,400 dollars to US \$8,440,000 (Gibson, 2008).

In Ghana there is a debate as to what constitutes as an SME. The National Board for Small Scale Industries which is the regulatory body for SMEs in Ghana, defines it in terms of fixed assets and number of employees (Hayford, 2012). According to Hayford, an SME is an enterprise with a turnover that is greater than US \$200,000 but no more than \$5 million equivalent. Gibson (2008) on the other hand states that an SME in Ghana has an

annual turnover of US\$23,700 and US\$2,370,000 (Gibson, 2008). But how does the lack of certainty affect the access to finance?

### 2.1.2 The Financing Challenge

In view of the poor classification of SMEs, an IT company that is considered the largest and most prosperous in a country like Madagascar would not qualify for public financing, because of its turnover in relation to the country's GDP. However the same IT Company's turnover generated would qualify for public funding in a country like the United Kingdom, because of the average turnover of companies in the UK. Gibson (2008) claims that the problems with SME policy and the classification of the SME are closely linked, and that a change in the classification of SMEs can lead to powerful change in policy recommendations and therefore financing.

His article argues that, "given that the economic contributions of SMEs is dependent on the success in their home markets, the size of parameters of the SMEs should be scaled relative to their home base" Gibson (2008). While this makes sense it was pointed out that Gibson (2008) and Hayford (2012) used a foreign currency to specify the category for revenues. This could be problematic as foreign currency when compared to the local currency (which is the Ghanaian cedi) is much higher. This could lead to the isolation of some SMEs because they would not fall within the turnover range. This turnover range is not a representative range of the local context.

For the purpose of this study, the definition of SME would have to be conducted within the local currency using fixed assets and number of employees as a guideline within the formal sector.

#### 2.1.3 How are SMEs financed?

Banks seem to hesitate on the idea of readily providing finance for SMEs because of the high risks of defaulting on loans and risks associated with these institutions (*IFC*, 2010). But financial services, like banks, are generally crucial for the growth and expansion of any SME cycle (*IFC*, 2010). It has been observed that the initial sources of funding for SME's tend to be informal because of the regulatory challenges banks impose with loans and inaccessibility to the entire fund. As expansion occurs external sources become important and more and more of a necessity.

According to Fatoki (2014), whose paper focuses on SME financing in South Africa, for SMEs to thrive within the market, they need a capital structure that consists of debt and equity. According to her, there are a variety of traditional financing options available under equity and debt. Equity can include, entrepreneurs and team members, friends and family, business angels, venture capitalists, stock markets and finally other companies or strategic investors. Debt, on the other hand, consists of banks and microcredit firms, leasing companies, government agencies, trade credit and bootstrapping.

While the other forms of financing stated in the list are familiar, 'Bootstrapping' is not a popular term amongst financial institutions. It simply refers to an alternative way of financing when internal or external financing is not available. It is when companies try and access financing through creative means and cost cutting. What Fatoki (2014) fails to do

in her paper, is to determine which type of financing method is preferred within South Africa. The list demonstrates a variety of financing options that are universal standards, but each country will be partial to one and it would be interesting to know why they choose one particular type of funding over the other.

Addotei (2012) explains how any provider of external debt or equity finance will want to monitor the company, which is why banks tend to favor credit rationing. Credit rationing occurs when a bank refuses to give the full amount of the loan, even if the company is willing to pay higher interest rates than other customers. This tends to be problematic because SMEs tend to have unpredictable yearly earnings. This significant characteristic is the reason that SME's rate of survival is very fragile and so the credit rationing system is counterintuitive (Addotei 2012).

Hayford (2012) further explains that the major cause for the SME's inability to raise funds from financial institutions, is the unavailability of collateral to back these facilities as requested. He elaborates that in Ghana specifically, land might be the only likely collateral, but because of the obscure systems of ownership, regulation and title, the complications outweigh the worth (Hayford, 2012).

A survey conducted by HFC bank in Ghana found that there are other types of financing that are in Ghana and some are yet to be explored that have committed to financing SMEs. These models are in Table 2.1 below:

Table 2.1 Financing options in Ghana

| Commercial<br>Banks   | Development<br>Finance<br>Institutions        | Capital<br>Markets  | Private<br>Equity/Venture<br>Capital             | Lease<br>Finance                                       | Sovereign<br>Wealth Funds                              |
|---|---|---|--|--|--|
| -Debt Finance<br>-Overdrafts                                  | -Trade and                                    | -Ghana Stock  |  |  |  |
| -Working Capital Financing -Bridge Financing -Trade Financing | Investment Program -DANIDA SME fund -GTZ Fund | Exchange facilitates entry of SMEs by creating a Provisional List | -Ghana's investment activity was US\$ 20 million | -Lease<br>operators are<br>financing more<br>equipment | -Funding in raw materials and transport infrastructure |

Source: HFC BANK, 2012

Addotei (2012) believes that trade credit seems to be the preferred method of financing in emerging markets. Trade credit is credit supplied by non-financial entities. One of the reasons for its preference over others is that, often when the method of financing is received, the entrepreneur may be motivated to undertake excessively risky projects because all the profits (if he or she were to be successful) would belong to the entrepreneur. Also the relationship formed because of the trade credit agreement, is much more personal than it would be with any other type of financing, allowing the entrepreneurs to extend the repayment time on the loan (Addotei, 2012).

What was most interesting is that none of the literature commented on microfinance as a source of finance, despite the magnitude of the presence it has in Ghana and in developing countries round the world. "The microfinance sector in Ghana, according to the Microfinance Information Exchange Report (MIX), shows that there are approximately 195,000 active borrowers and 55 microfinance institutions as of 2010." (MFT Transparency, 2011)

For the purpose of this study microfinance will be the only source of funding that will be looked at. An assessment as to why it is preferred over other innovative types of funding (such as crowdfunds) will be explored to see whether crowdfunding could be a better alternative.

### 2.2 The Problem with Micro financing

## 2.2.1 Background and Reason for Existence

Microfinance is the provision of financial services to low income, poor and very poor self-employed people (Wrenn, 2005). The idea was to give access to those that did not have enough credit for banks to consider them, and to empower families, individuals and communities. Wrenn (2005) argues that during his time, microfinance was a relatively new concept. Prior to that, he elaborates that funding to the poor was done in the form of subsidized rural credit programmes.

Another theory is that micro finance came from banking systems, in the early 1700s from an Irishman, Johnathan Swift, who decided to create a banking system that targeted the poor. His initiative inspired many within the west of Europe so that Fredrich Wilhelm Raiffeisen (a German man) founded the first rural credit union in 1864 that provided affordable loans and sustainable community development (Lindsay 2010).

Furthermore it was only in the 1970's that they started to branch out into the variations of microfinance institutions that exist today. Whichever the case, both authors agree that the

"father" of microfinance is Muhammed Yunus who started the Grameen Bank in Bangladesh in 1983. People were universally convinced that microfinance could combat poverty, and the success rate and increase of these institutions meant community development was not a far off goal. According to Wrenn's (2005) discussion on, microfinance, the hope was that it;

- o helped very poor households meet basic needs and protects against risks,
- o was associated with improvements in household economic welfare,
- helped to empower women by supporting women's economic participation and so promotes gender equity.

More recent studies however demonstrate the complete cynicism and skepticism of these institutions that were rising (especially in developing countries) but development was scarce.

### 2.2.2 Microfinance loses its popularity

Bateman (2009) argued that microfinance may actually be undermining the attempts to establish economic development within poor communities. Countries that are considered as emerging markets such as China, Taiwan, Thailand and India, have shown an astonishing rate of development in a short period of time, without microfinance playing a role in that development.

"The suffering of the poor and increasing default became the outgrowth of this movement to commercialization" (Halloway, 2011, pg 3).

Halloway's (2011) skepticism of the institution comes from the fact that there seems to be a commercialization of microfinance institutions. Those that started out as completely

non-profit are now evolving into organizations that have small loan portfolios that would be profitable to their shareholders, and for this to happen, interest rates are raised far beyond the financial capabilities of the poor.

But Lindsay (2010) believes that the commercialization of these institutions holds certain benefits. For one, due to investor involvement and the creation of portfolios, institutions would have no choice, but to become more transparent than non-profit organizations.

Wrenn's (2005) paper on the other hand outlines the five faults that are generally associated with microfinance institutions;

- They encourage a single-sector approach to the allocation of resources to fight poverty,
- o Microcredit is irrelevant to the poorest people,
- An over-simplistic notion of poverty is used,
- There is an over-emphasis on scale,
- There is inadequate learning and change taking place.

By conducting this study, Wrenn's theory could be applied to Ghanaian Microfinance institutions to see whether what he stipulates holds true.

#### 2.2.3 Microfinance in Africa

A report by the African Development Bank (ADB) describes that "tontites" were the first form of microfinance within the African continent. By 2006 the Consultative Group to Assist the Poor (CGAP) had recorded 467 microfinance programs around the Sub-

Saharan Africa and they served a mix of poor and middle income class clients, in order to achieve best cost coverage (Mokkadem, 2009).

One feature that sets Microfinance in Africa apart from those around the world is its deposit mobilization. Seventy percent of the funding comes from savings. However, the ADB states that there are challenges when it comes to sustainability of these institutions because of factors like low population density, and poor infrastructure. Despite these factors, there are testimonies from women on the positive impact generated by access to finance and women are the multiplier effect. "African MFI's are considered one of the most productive globally as measured by number of borrowers and savers per staff member" (Mokkadem, 2009).

In Nigeria, despite the clear objectives stated by microfinance institutions, there was clear evidence that the institutions were failing due to corruption, inadequate finance, frequent changes in government policies and most significantly, heavy transaction costs with mounting loan losses. As a result doubts were raised about the sustainability of these institutions (Nwanyanwu, 2011). This falls in line with Bateman (2009) who argues that the sustainability of microfinance institutions is unachievable if microfinance institutions are giving out loans that cannot be paid back by microenterprises.

This implies that these institutions defeat the purpose of their existence. He elaborates that when microenterprises fail, the microloan has to be paid back by selling family assets or taking out another microloan which creates a vicious cycle.

## 2.2.4 Structure of Microfinance Institutions globally

The structure of microfinance institutions has varied since its creation by the Grameen Bank in 1970. The literature however has proved that the models of micro lending has been around since the 17<sup>th</sup> century and that models have been flexible to suit the industry and the need of the community.

It is stated that the Grameen bank was the first bank to use the solidarity group (Waterfield, 2001). The solidarity group drew inspiration from the Rotating Savings and Credit Associations Model (RSCAM) which is known as the original micro lending model. As identified by Wrenn (2005) there are three main models which shall be discussed in the Table below;

Table 2.2 of the Original types of Micro financing Models

| Rotating Savings and Credit       | The Grameen Solidarity Group       | Village Banking Model                 |
|-----------------------------------|------------------------------------|---------------------------------------|
| Associations                      | model                              |                                       |
| When a group of people come       | This model is based on group peer  | Village banks are community-          |
| together to make regular cyclical | pressure whereby loans are made to | managed credit and savings            |
| contributions to a                | individuals in groups of four to   | associations established by NGOs      |
| common fund, which is then given  | Seven. Group members collectively  | to provide access to financial        |
| as a lump sum to one member of    | guarantee loan repayment, and      | services, build community self-help   |
| the group in each cycle           | access to subsequent loans is      | groups, and help members              |
|                                   | dependent on successful repayment  | accumulate savings. They have         |
|                                   | by all group members. Payments     | been in existence since the mid-      |
|                                   | are usually made weekly            | 1980s. They usually have 25 to 50     |
|                                   |                                    | members who are low-income            |
|                                   |                                    | individuals seeking to improve their  |
|                                   |                                    | lives through self-employment         |
|                                   |                                    | activities. These                     |
|                                   |                                    | members run the bank, elect their     |
|                                   |                                    | own officers, establish their own by- |
|                                   |                                    | laws, distribute loans to individuals |
|                                   |                                    | and collect payments and services.    |
|                                   |                                    | The loans are backed by moral         |
|                                   |                                    | collateral; the promise that the      |
|                                   |                                    | group stands behind each loan.        |
|                                   |                                    |                                       |

Source: Wrenn 2005

The distinctions between the three models are very few. In the RSCAM model there was a contribution made to a common fund which was then given out as a principal loan each cycle. In the Grameen Solidarity Group model, the payment cycle is dependent on repayment of the previous group of debtors. The Village Banking Model is run like a Bank except the collateral used is the promise of repayment. Since these models pertain to developing countries, it would be interesting to see the similarities and differences between the original model and the one adapted for the African continent.

In Nigeria the models are somewhat similar but have been given different names and have been adapted for the Nigerian context. Below is the Table that describes the microfinance institutions available in Nigeria;

Table 2.3 of Microfinancing Models in Nigeria

| The                   | Nigerian              | Nigerian Bank for    | Nigerian            | Community              |
|-----------------------|-----------------------|----------------------|---------------------|------------------------|
| Esusu/Itutu/Adas      | Industrial            | commerce and         | Agricultural and    | Banks                  |
| hi                    | Development           | Industry             | Cooperative Bank    |                        |
|                       | Bank                  |                      |                     |                        |
| Contribution based    | Provided for medium   | Low-cost long-term   | Lend to agriculture | Self-sustaining        |
| savings scheme        | and large scale       | finance to SMEs and  | using cooperative   | financial institutions |
| which is operated on  | enterprises. Funded   | to enable SMEs to    | societies as a      | owned and managed      |
| the basis of rotating | smallscale            | have access to funds | channel of loan     | by local communities   |
| savings and loans     | businesses with total | from international   | disbursementand     | to provide financial   |
| association. Used for | capital outlay of     | lending agencies     | repayment           | services to            |
| rural dwellers        | 750,000 naira         |                      |                     | communities at         |
|                       |                       |                      |                     | grassroots level       |

Source: Nwanyanwu 2011

If we compare the models, it is evident that the models have been adapted from the original three. They have been organized into formally categories that suit the needs of different industries or scales of enterprises. While the categorization is beneficial to their target markets, it could become difficult to distinguish the main purpose of each institution and where each institution overlaps into another. An example of this is in Ghana, where the microfinance institutions are split into five categories as shown below (Andah, 2012);

Table 2.4 of Micro financing Models in Ghana

| Rural and              | Savings and             | Credit Unions          | Financial NGOS      | Susu Collectors      |
|------------------------|-------------------------|------------------------|---------------------|----------------------|
| Community              | Loans                   |                        |                     |                      |
| Banks                  | Companies               |                        |                     |                      |
| Operate as             | Owned by private        | Cooperative thrift     | Multipurpose NGOs   | The individual       |
| commercial banks       | individuals or entities | societies that do      | providing micro     | itinerant Susu       |
| except that they       | who hold shares in      | mobilize savings       | credit and some     | Collectors have long |
| cannot undertake       | the companies.          | deposits from and      | non-financial       | provided an          |
| any foreign business   | These are licensed      | give loans to their    | services. They are  | important form of    |
| and their minimum.     | as non-bank             | members only. The      | excluded from       | savings in the West  |
| Capital requirement    | financial institutions, | credit unions exist at | mobilizing savings  | African sub region.  |
| is significantlylower. | Their capital           | work places,           | from the public and | They collect daily   |
| RCBs operate as        | requirement is much     | parishes and           | hence have to use   | amounts set by each  |
| unit banks owned by    | below that of the       | communities, there     | external funds for  | of their clients     |
| both resident and      | commercial banks,       | are both rural and     | their micro credit  | (usually traders and |
| non-resident           | but well above that     | urban unions.          | operations. These   | artisans) and return |
| members of the rural   | for the rural and       |                        | funds are from      | the accumulated      |
| community through      | community banks.        |                        | donors,             | amount at the end of |
| the purchase of        |                         |                        | development         | the month, minus     |
| shares and are         |                         |                        | partners, social    | one day's amount as  |
| licensed by the Bank   |                         |                        | investors and       | a commission. Of     |
| of Ghana.              |                         |                        | government          | late some susu       |
|                        |                         |                        | programs.           | companies have       |
|                        |                         |                        |                     | been set up with     |
|                        |                         |                        |                     | employees doing the  |
|                        |                         |                        |                     | collection.          |
| Formal Financial Inst  | itutions                | Semi- Formal Finance   | ial Institutions    | Informal Financial   |
|                        |                         |                        |                     | System               |

Source: Andah, 2012

In Ghana these structures are split into Formal, Semi-Informal and Informal Institutions, which is necessary for the study so that the type of Microfinance Institution under investigation would be properly defined. Also what was discovered by Andah (2012), is that a cluster of formal institutions tended to be found in the city or closer to the city,

whereas, semi-formal institutions and informal institutions had more presence in numbers in the rural areas.

Once again it is evident that the variety is simply adaptations or combinations of the original models found in Wrenn's (2005) paper. It is interesting to see how each of the models have been adapted to suit what one would assume is the country's need. It demonstrates the flexibility of the microfinance institutions to adapt and evolve. It makes one wonder at the challenges that were brought up earlier in the analysis of the literature. But there is a concern as to where each institution draws a barrier on the type of financing they provide.

Crowdfunding removes this distinctions by simply providing funding for every project, despite the industry or type of institution. The ability for entrepreneurs to create an online pitch, without regulation, and high interest rates and still have access to the entire capital needed is something that could manage this challenge.

### 2.3 The Crowdfunding Hype

## 2.3.1 Defining Crowdfunding

It is undeniable that crowdfunding has created a buzz in terms of alternative financing. Willems (2013) states that the first emergence of the phenomenon dates back to 2006, where the term starts out as crowdsourcing. According to the Merriam Webster dictionary, it is "the practice of obtaining needed services, ideas, or content by soliciting contributions from a large group of people, and especially from an online community, rather than from traditional employees or suppliers" (Crowdsourcing, 2014).

It would seem off the back of that, that crowdfunding and crowdsourcing are the same and the terms could be used interchangeably for preference. However, Willems demonstrates that based on literature, the concepts are slightly different. Crowdsourcing focuses on organizations that are usually target-oriented, whereas, crowdfunding focuses on the general non-profit sphere.

Hemer (2011) further emphasizes this point by stating that while crowdsourcing and crowdfunding are similar, the little research available for crowdfunding, focuses on funding for NGO's, companies within the creative industry and organizations that look to crowdfunding platforms to fund their research. The distinction created between the two lies in the objectives of each. Crowdsourcing (from the word *outsourcing*) relies on the pooling together of assets, resources and knowledge whereas crowdfunding looks solely to obtain money (Webster, 2014).

"Crowdfunding involves an open call, essentially through the Internet, for the provision of financial resources either in form of donations (without rewards) or in ex-change for some form of reward and/or voting rights in order to support initiatives for specific purposes" (Hemer, 2011 pg 12)

Whatever literature is available, is of the consensus that the concept of crowdfunding is not a new one as there have been models that have been similar to it. The European Framework for Crowdfunding implies that the basic concept has been used in a variety of different ways across industries such as co-op banking, subscription sales and the opening up of the stock market to retail investors (De Buysere, 2012). Hemer (2011) also agrees to this point but he states what has evolved to justify the concept is the exploitation

of social networks and the mobilization of a large number of users in specific web communities within a short period of time.

### 2.3.2 Background and Reason for Existence

The European Framework for Crowdfunding eludes, that it could have been a reaction from the 2008 financial crisis (De Buysere, 2012). According to the framework, SME's bore the brunt of the crisis with no funding for their businesses, no security of a bank loan, and no access to credit lines from the financial services industry. The result was that people looked to the future to innovate (De Buysere, 2012).

Wilems (2013) paper outlines which factors contribute to the success rate of crowdfunding platforms. He states that crowd funders are less interested in the financial return they receive from contributing, than they are with the feeling of being part of a community. Although profit maximization is a goal, there is a connection formed between the funder, and the project owner, despite them never needing to meet face to face. It is essentially a financial service that copies the financial markets model, and turns it on its head.

Wilems (2013) draws his speculation from Hemer (2011), who demonstrates why crowdfunding could be a good alternative method of financing startups. He explains that the motivation for people to voluntarily give away part of their income to a project is;

- Personal identification with the project's subject and its goals,
- Contribution to a societally important mission,

- Satisfaction from being part of a certain community with similar priorities,
- Satisfaction from observing the realization and success of the project funded,
- Enjoyment in being engaged in and interacting with the project's team,
- Enjoying contributing to an innovation or being among the pioneers of new technology or business,
- The chance to expand one's own personal network, or
- The expectation of attracting funders in return for one's own crowdfunding project.

With all these factors, how do crowdfunding platforms gain any revenue?

#### 2.3.4 Structure of crowdfunding platforms

Currently, crowd funding platforms are the facilitators for funding from all over the world. Unlike banks or other financial institutions that would act as intermediaries between the lender and the borrower, crowdfunding platforms give the borrower and the lender access to each other, the only barrier is the site for the different type of crowd fund.

It would seem that since Hemer's (2011) first description of the Crowdfunding Business Model, several variations have since evolved from the original. For the purpose of this study it would be necessary to list all of them so that when drawing conclusions for the local context, one can find the model that is most feasible and applicable. Below in Table 3.1 are the different types of models explained in the literature (from 2011 to 2014).

Table 3.1 of Crowdfunding options

| Heme        | r's E | Business Models-2011         | EU Crowd | lfun  | ding Framework    | Financial Conduct Auth |    | Conduct Authority  |
|-------------|-------|------------------------------|----------|-------|-------------------|------------------------|----|--------------------|
|             |       |                              | N        | /lode | ls-2012           |                        | Мо | del -2014          |
| Threshold   | •     | Common method used           | Pre-     | •     | Some platforms    | Donatio                | •  | Third sector       |
| Pledge      | •     | Project owner and platform   | Sales    |       | allow project     | n Model                |    | organizations      |
| model       |       | decide X amount of money     |          |       | owners to         |                        | •  | Usually money is   |
|             |       | to be raised by Y amount of  |          |       | upload the        |                        |    | raised for a cause |
|             |       | time (known as the pledge)   |          |       | product or the    |                        | •  | No tangible        |
|             | •     | If money is made in time     |          |       | prototype and     |                        |    | returns to funder  |
|             |       | project owner receives it    |          |       | take orders of it |                        |    | other than a good  |
|             |       | and any extra made with a    |          |       | from funders      |                        |    | feeling            |
|             |       | small one-time fee from the  |          |       |                   |                        |    |                    |
|             |       | platform                     |          |       |                   |                        |    |                    |
|             | •     | If the money is not made in  |          |       |                   |                        |    |                    |
|             |       | time then pledges are        |          |       |                   |                        |    |                    |
|             |       | cancelled or if funders      |          |       |                   |                        |    |                    |
|             |       | continue to want to back     |          |       |                   |                        |    |                    |
|             |       | project they are able to     |          |       |                   |                        |    |                    |
| Micro-      | •     | Similar to threshold model   | Revenue  | •     | Funders receive   | Reward                 | •  | Funders contribute |
| lending     | •     | Except moneyraised is a      | Sharing  |       | a return based    | Based                  |    | now and receive a  |
| Models      |       | loan and so interest rates   |          |       | on future         | Model                  |    | perk later         |
|             |       | are given back to the        |          |       | revenues of the   |                        | •  | Size of rewards    |
|             |       | funders over a period of     |          |       | company           |                        |    | depends on size of |
|             |       | time.                        |          | •     | Royalty based     |                        |    | contribution       |
|             | •     | The time has been            |          |       | financing         |                        |    |                    |
|             |       | 'pledged' bythe project      |          |       | adopted           |                        |    |                    |
|             |       | owner                        |          | •     | Contractual       |                        |    |                    |
|             |       |                              |          |       | Freedom           |                        |    |                    |
| Investmen   | •     | Project sets its target      | In Kind  | •     | Based on          | Lendin                 | •  | For those seeking  |
| t or Equity |       | amount                       | (Reward) |       | funding amount    | g                      |    | debt financing     |
| Models      | •     | Divides it into equal shares |          |       | received, funder  | Based                  | •  | Loans are giving   |
|             |       | and sells it to funders      |          |       | receives a        | Model                  |    | out with interest  |
|             | •     | When shares are sold         |          |       | payoff in kind    |                        |    | depending on       |
|             |       | projects starts and          |          |       | that has          |                        |    | borrowers credit   |
|             |       | investment begins            |          |       | substantial       |                        |    | rating             |
|             |       |                              |          |       | worth             |                        | •  | Funders are        |
|             |       |                              |          |       |                   |                        |    | motivated by the   |
|             |       |                              |          |       |                   |                        |    | return             |

| T   | N  | /lodels-2012   |   |   |
|---|--|--|---|---|
| T1 16 11 1 46                                 |  | 100e15-2012  | Model -2014   |   |
| <ul> <li>The crowdfunding platform</li> </ul> | In Kind  | Rather than  | Equity  | Same as Hermer's  |
| creates a subsidiary                          | (Funding   | offering   | or  | model   |
| companyfor each project                       | )  | money, the   | Investm   | This model is   |
| as an individual holding                      |  | funder could   | ent   | popular in Europe   |
|   |  | offer a product  | Based   |   |
|   |  | or service   | Model   |   |
|   |  | instead  |   |   |
| Rare  | Hybrid   | Some platforms   |   |   |
| Highly regulated by a                         | Models   | adopts a mixture   |   |   |
| supervisoryauthority                          |  | of lending and   |   |   |
| Sales prospectus is                           |  | reward based   |   |   |
| released and approved by                      |  | models   |   |   |
| supervisoryauthority                          |  |  |   |   |
| A select group of investors                   |  |  |   |   |
| offering large sums                           |  |  |   |   |
|   |  |  |   |   |
|   | creates a subsidiary companyfor each project as an individual holding  Rare Highly regulated by a supervisory authority Sales prospectus is released and approved by supervisory authority A select group of investors | creates a subsidiary companyfor each project as an individual holding  Rare Highly regulated by a supervisory authority Sales prospectus is released and approved by supervisory authority A select group of investors | creates a subsidiary companyfor each project as an individual holding  Rare Highly regulated by a supervisory authority Sales prospectus is released and approved by supervisory authority A select group of investors  (Funding money, the funder could offer a product or service instead  • Some platforms adopts a mixture of lending and reward based models | creates a subsidiary companyfor each project as an individual holding  Rare Highly regulated by a supervisory authority Sales prospectus is released and approved by supervisory authority A select group of investors  (Funding money, the funder could offer a product or service instead  Models  Some platforms adopts a mixture of lending and reward based models |

Source: Willems 2013, Hemer 2011, and FCA 2014

It is interesting to see the funding flexibility that crowdfunding offers to willing participants. The table was drawn to demonstrate the different types of models across the board. Donation, Reward and lending based model were some of the common ones found in most crowdfunding platforms but the structures of the core three tend to vary from platform to platform.

Hermer (2011) gave a detailed outline on the transaction process as well as the funding process that is part of crowdfunding platforms whereas The European Framework (De Buysere, 2012) and the FCA (2014) focused on just the funder. There are similarities to be drawn in the different types of models. Once can suppose that this is because the time

lapse for crowdfunding has not been great enough to foster an evolution of models that creates significant distinctions.

For the purpose of the study, the Table will be used to come up with a questionnaire that allows the investigated SME's to choose which type of platform would be most favorable to them.

## 2.4 Crowdfunding? Or Microfinance? (Theoretical Framework)

With the advancement of the technological age, it has been argued that access to financing outside physical institutions is much easier than before. One can set up online platforms, secure online money transferring services and free social media marketing tools can be used to engage people all over the world. Because of this, tapping into crowdfunding now seems a feasible idea for SMEs (Fatoki, 2014). Some research has demonstrated that microfinance on the other hand, which used to be a major source of financing has had low levels of actual development with significant negative effects. Is it possible then to replace one with the other?

Because the crowdfunding concept is new it was difficult to find literature that argues one over the other. Whether or not it could be an effective alternative, is something that constitutes as a valid debate. Currently there has been literature that tries to marry the two concepts or argue that both types of financing models could make credit institutions irrelevant.

According to Persson (2013) the commercialization of microfinance institutions has birthed a hybrid that used the crowdfunding platform to push microfinance loans. Kiva,

was one of the first organizations to recognize that this could be used for development purposes. The hope was that these hybrid models, would be used as a viable way of bringing microfinance back, to its non-profit roots through a charity based microfinance model. Doing this would solve some of the issues that the microfinance industry has been criticized for (Persson, 2013).

Micro financing is a new globalized form of credit, which differs from traditional credit institutions but whether micro finance institutions are a sustainable financial model is a very important question (Benlahbib 2014). The idea for these type of models is to;

- Fight against banking exclusion
- To promote entrepreneurship
- To reduce unemployment and exclusion

Ironically the limitations of these models provide the antithesis of the stated solutions above. Microfinance institutions are now being bought by large banks and crowdfunding platforms use a scoring system to know if the borrowers have enough guarantees to finance their project. So the poorest have no access to microfiance that was ultimately created for them (Benlahbib, 2014).

Another limitation is the risk of a depreciating currency. In the case of Kiva if the local currency loses value against the dollar during the time that the loan is standing, it will be more expensive for organizations to pay back the loan. For the purpose of this study, I will be investigating whether each financial model could satisfy the needs and expectations of SMEs, while weighing one option against the other (Benlahbib, 2014).

In order to determine whether crowdfunding could be better than micro financing for formal SMEs in Ghana, there are several things to consider that was argued in the literature that will inform the methodology;

- Gibson (2008) states that formal Ghanaian SME's are defined as companies that
  have a turnover of a minimum of US\$2,370,000. For the interest of this study, the
  criteria will have to be changed to Ghanaian currency, to make the context local.
- Andah (2012) discovered that Microfinance Institutions are categorized by type of institution they serviced. They were split into categories such as, Formal, Semi Formal and Informal Sectors. Formal Microfinance Institutions will be the type of institutions investigated in the study because they are found in Accra, and they finance SME's in the formal sector.
- It was discovered by Addotei (2012) that SMEs tend to prefer trade credit as a financing option because of the ability to go for risky ventures, something that a microfinance loan would not allow. This will be used when forming questions on the shortcomings of microfinance institutions. It will also be used to compare it to the benefits of crowdfunding
- Both Crowdfunding Platforms and Microfinance Institutions have limitations that were explored by Benlahbib (2014) and Persson (2013). The limitations outlines by both parties will help measure which one could be better than the other.

The theoretical framework created based on the literature, will be used to formulate the research design and the methodology for the next chapter.

## **CHAPTER 3**

#### **METHODOLOGY**

## 3.1 Chapter Introduction

This section explored the most optimal research design for the study to ensure it addresses the objectives of study and constructs and effective sampling strategy. The design also determined the procedures for collecting the data and explored the most appropriate tools to use for the analysis of data. Finally in this section, each decision was justified to help tackle the research question:

"Could crowdfunding platforms be a better alternative for formal SME's in Ghana than microfinance institutions?"

## 3.2 Research Design

Exploratory research was the type of research design conducted because it was the most appropriate for the study. The study was unique because crowdfunding is a contemporary subject that started to draw the attention of researchers around 2009. Its parameters have not yet been clearly defined, so a study like this that drew a comparison and pointed out the differences between microfinance and crowdfunding is something that contributed to the foundation for research in the future.

The objectives of the study required a mixture of qualitative and quantitative research methods. While quantitative analysis was used, it was not enough to make inferences to highlight and draw relationships with the key terms: SME, crowdfunding and microfinance.

## 3.3 Sampling Strategy

A report published by Bank of Ghana stated that the list of registered number of microfinance institutions are 409 (Bank of Ghana, 2014). The locations and the type of these institutions was not stated in the list, and so it will be necessary to find out how many will be in the city of Accra.

The reason for choosing Accra (the capital city), is that it is easier to access than in any other town or city in Ghana. The literature also indicates that the type of SMEs and Microfinance institutions needed for the investigation tend to be clustered within the city. Each institution was sorted into their respective locations and it was discovered that 120 of those institutions were located in Accra.

Population proportion was the most appropriate for this study because in order to achieve the objectives set out, the focus would be on sampling attributes of the population, rather than calculation of averages of the population. Nevertheless this means that the proportion of the population used could not be seen as a perfect representation, specifically with a sample size this small. A proportion as small as 30% is considered sufficient enough for data collection. (National Audit Office, 2001). As a result, a sample of 36 Microfinance Institutions will be investigated.

The Snowball method of sampling is a non-probability sampling technique is when samples collected are from previous acquaintances. "Snowball sampling relies on referrals from initial subjects to generate additional subjects" (StatsPac, 2014). This method is justified because the number of SME's this shall be subject to any information that the Microfinance Institutions will be willing to give depending on their policy.

Finally to give a holistic analysis, Ghanaian crowdfunded projects on Kickstarter and Indiegogo will be investigated to determine what made them pick crowdfunding over other financing methods. On each platform there are 20-30 projects that have been funded, and so the entire population would have been used because it is a small population.

#### 3.4 Procedure

Fifty questionnaires were given out (to ensure that the target of 36 was met) to CEO's or finance managers of Microfinance Institutions. This is because the CEO's or finance managers would be the most likely people to have access to the financing methods of Microfinance Institutions. Then as many questionnaires were to be handed out to CEO's or managers of SMEs that would have been recommended by Microfinance Institutions. Finally questionnaires to the entire population of crowdfunded Ghanaian projects were to be handed out. After doing that the data would have been collated and inputted into PSPP. To generate results, Factor Analysis and Pearson's Chi Squared test were used to configure results, which were then analyzed in accordance with the literature.

The study ended up using a sample of 20 Microfinance Institutions because of external factors that affected the population size of the study which was discussed in the Limitations. A sample size of 35 SMEs where used because the microfinance institutions refused to disclose information of their clients as previously anticipated and so convenience sampling had to be used to collate that data. Finally, a sample size of 10 crowdfunding institutions where used because or external factors that disrupted the planned sample size, also discussed in the limitations.

#### 3.5 Data Collection Tools

## Questionnaires

The data collection tools that shall be used will be a questionnaire one fashioned for the Microfinance Institutions and one fashioned for the SME. A questionnaire would be the most appropriate tool to use for this study because it allows for the data to be quantified if necessary. The study is primarily quantitative but also qualitative. If SME's or the Microfinance institutions have the same comparable answers than the data could be quantified.

The reason that questionnaires was the only tool used to collect the data is because of the time constraints face and it was necessary for putting the data into SPSS. It also aided when the data was analyzed using statistical tools, i.e. Pearson's chi squared and factor analysis.

#### 3.6 Data Analysis

The types of data analysis that were used were;

• Pearson's Chi Squared (Descriptive Statistics) - A Chi-square test is designed to analyze categorical data. That means that the data has been counted and divided into categories by using contingency tables. The test compares the observed data to a model that distributes the data with the assumption that the variables will return a result that proves their independence from each other. Whenever the observed data doesn't fit the model, the likelihood that the variables are dependent becomes stronger, which disproves the null hypothesis (Ling, 2008). This is most

appropriate when trying to see how dependent the variables are to each other in order to tackle objective two and three.

• Factor Analysis- Factor analysis is applied as a data reduction or structure detection method. The idea is to create a relationship from complex data or responses and quantify it in order to back up the argument. It is done by coding a number of different variables. These variables are then put through a factor analysis solver program such as SPSS and it creates integers that describe the significance of the relationship of variables to each other. The closer you are to 0 tells you how of little importance the relationship of the variables are to each other. The closer you are to 1 tells you how significant the relationship of the variables are to each other.

## 3.7 Limitations of Research Design

- It was extremely difficult to find contact details online for the Microfinance Institutions as well as the SMEs. Some details where outdated and so the companies did not exist anymore. This had an impact on my data collection design which started off with specific parameters dictated by the theoretical framework, which adapted to suit the situation as time went on.
- An article on the 5<sup>th</sup> of March 2015, discussed the issues that Bank of Ghana faced with Microfinance Institutions not being registered. Because of this over 100 institutions were shut down (myjoyonline, 2015). This drastically affected the sample size of the data.

- When collecting the data from Microfinance Institutions, there was a reluctance to divulge any information about the SMEs they funded because it infringed on some of their policies. Convenience sampling replaced the snowball method so that the data sample was not as limited as it would have been had the snowball sampling method remained.
- In order to collect data from sited like Kickstarter and Indiegogo, an email was sent to them to allow for the waving of their terms and conditions, so that legally one could contact as many project leaders as possible at once. Unfortunately there was a significant delay in response and so project leads were contacted before the confirmation came from the crowdfunding platforms. This created a conflict and the account created for the purpose of research was suspended.

# 3.8 Recommendations for Limitations of the Research Design

- Despite the limitations that were addressed in the study, a larger sample size for each target group was necessary. If convenience sampling had been used earlier perhaps the sample sized would have been large, rather than focusing on proportion of the population or being dependent on others to give the information first hand.
- Sourcing live data during the course of the study was extremely difficult, especially since the parameters were specific as they were drawn from the literature. It may be easier in the future to source data by broadening the parameters as much as possible and then if your sample is large enough, filter the data that falls within the parameters.

- When collecting data one must take into account how volatile the market is and so
  quantitative tools that are used should factor in margin of errors to increase reliability
  of results.
- Other than using Chi Squared, a good statistical tool that will describe the significance of any relationship that the Pearson's Chi Squared test picks up is Cramer's V. It uses a scale of 0 to 1 to determine the significance of the relationship between nominal values.

It is to be noted that this will affect the output of the Chi Squared and Factor Analysis

Tests that shall be run in PSPP. The data size has shrunk which will affect the reliability

of the data. Ergo, any result is not a complete representation of the entire population of
the Microfinance Institutions, SMEs and Crowdfunded Projects. The outputs does
however give an idea of the attributes of the variables and what could be inferred from
the results caeteris paribus.

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## **CHAPTER 4**

## **FINDINGS AND DISCUSSIONS**

### 4.1 Recap

In order to investigate whether crowdfunding platforms be a better alternative for formal sector SME's in Ghana than microfinance institutions, the objectives below need to be tackled.

- Define the structures and background for Microfinance and Crowdfunding Institutions.
- 2. Identify the motivation for SMEs for choosing specific financing options.
- Find out if Micro financing and Crowdfunding Institutions as they exist are able to satisfy the expectations that motivate SMEs to choose them
- 4. Draw conclusions for the preferred financing option for SME's in Ghana.

In this chapter I will be focusing on objectives 2 and 3 and try and meet those objectives with Pearson's Chi Squared test and Factor analysis.

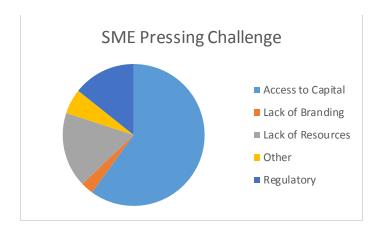
## 4.2 Relationships between Microfinance Institution and SME respondents

Pearson's Chi Squared test looks at relationship, association or independence. A cross tabulation chi squared test was used to determine if there are relationships between variables. In reality, Chi Squared could not directly answer objective 3 or 4 but if we compare the chi squared values for the variables in the Microfinance Questionnaire with chi squared values for the variables from the SME questionnaire, some parallels could be drawn.

The literature stated that one of the challenges that SMEs faced with microfinance was their inability to provide the full amount of the loan when needed. Also, whatever was sourced from the institution came with high interest rates and SMEs could not payback the funds.

The chart below demonstrates that the most pressing issue for SMEs was the access to capital. This coincides with what the literature says about SMEs in developing countries.

Chart 1

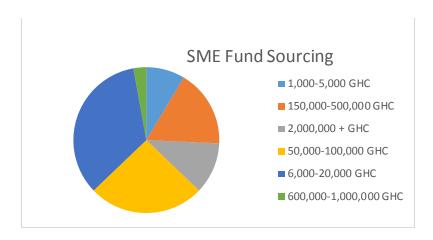


Source: Excel, SME collation

The length of time it takes to get a loan was paired with the largest loan ever distributed to examine whether there was a significant relationship between the two. A chi squared value of 8.16 was given with a degree of freedom of 6 (Table 2 appendix 1). The p value returned a value of 0.227 which is larger than the significance level of 0.05. This means that the null hypothesis (which argues that the variables have no relationship) should be accepted. The difference between the variables is not significant enough for us to assume that a loan size and the length of time it takes to get a loan are related

According to chart 2 below, the range of funds that are usually sourced by SMEs in the research lies between the GHC 6,000 to GHC 20,000 bracket.

Chart 2



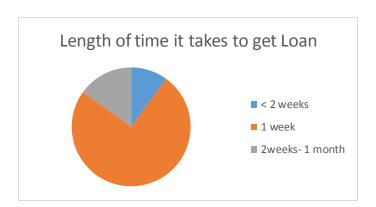
Source: Excel, SME collation

Chart 3 shows that majority of the Microfinance Institutions have distributed between 10,000-80,000 GHC as their largest loan.

Chart 3



Chart 4



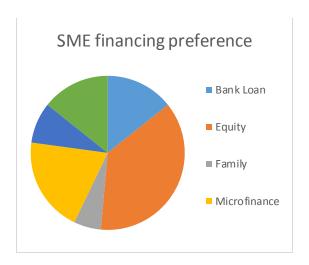
Source: Excel, MFI collation

Source: Excel, MFI collation

Chart 4 also shows that majority of the Microfinance Institution respondents are able to provide loans within a week of application of the loan (provided all the paperwork is in order). The two graphs show that the Microfinance institutions can fund the capital requirements of SMEs.

It is intriguing that the results show that chart 5 demonstrated that the most popular form of financing sources is equity. This could be because of the challenges described the literature in chapter 2.

Chart 5



Source: Excel, SME collation

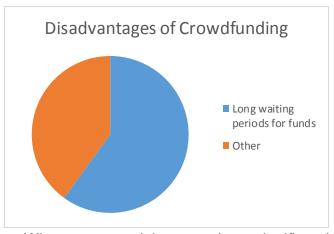
A chi squared test was performed on the contingency table that compared type of financing method used and reason for choosing that financing method (Table 7, appendix 1). It was assumed that there would be a strong relationship between the two that would explain the aversion to microfinance. Coincidentally, p value from the chi squared test

returned a value of 0.017 which is smaller than the significance level of 0.05. Thus we reject the null hypothesis as there is a relationship between the reason for choosing the financing method and the type of financing method used.

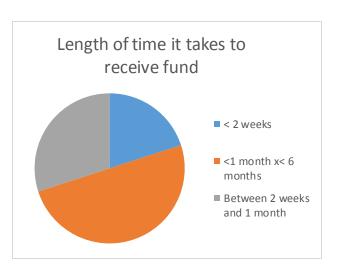
This is interesting because majority of the SMEs chose equity as their method of financing and also said their reason for this was the speedy access to funds it provides. Microfinance institutions do offer speedy access to funds. Crowdfunding on the other hand offers an equity model but does not guarantee speedy access to funds since the length of time it takes to raise the required capital is set by you, but it is completely dependent on the global financiers.

In the investigation of crowdfunded projects in Ghana by popular platforms such as Kickstarter, Indiegogo, fund seekers also found that a major disadvantage of crowdfunding was how long one had to wait to acquire the fund.

Chart 6

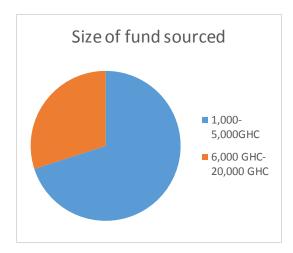


What was surprising was how significantly



smaller the funds that were required were in comparison to other projects on these websites. Chart 7 shows that majority of fund seeks between 1,000 GHC- 5,000 GHC

Chart 7

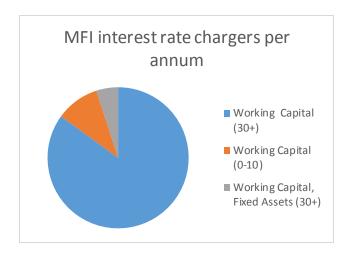


Source: Excel, Crowdfunding collation

Another issue that was raised in the literature was the high interest rates SMEs have to pay if they use micro financing as a source of funding. It was addressed in the literature that the high interest rates that microfinance institutions charged was linked to the "commercialization" of these institutions and the need to attract investors by producing attractive portfolios.

Chart 8 demonstrated that majority of the loans charged interest rates of 30% and above per annum for loans that were used for working capital.

Chart 8

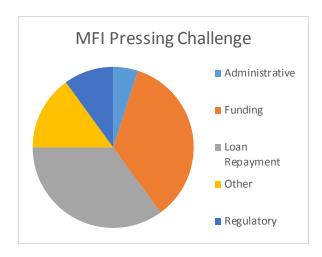


Source: Excel, MFI collation

A chi squared test was performed to see if there was any relationship between the challenges that the institutions faced and the interest rates they charged. Table 9 (appendix 1) returned a chi squared value of 12 with a degree of freedom of 8. The p value was 0.151 which is larger than the significance level of 0.05. This means that the null hypothesis should be accepted, and the challenges these institutions faced were independent on the interest rates charged.

However, Chart 9 demonstrates that the majority of the microfinance institutions chose funding and loan repayment as their biggest challenge which could be because of how high the interest rates are.

## Chart 9



Source: Excel, SME collation

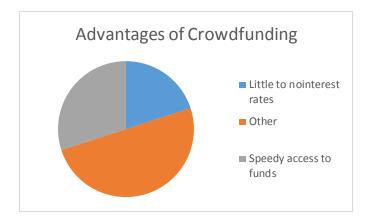
The literature iterates that with crowdfunding the cost of gathering the fund is a flat rate and is dependent on whether the entirety of the fund is achieved or not. Depending on the platform one uses (please see Chapter 1, Table 1: Rates and fees of crowdfunding sites).

Despite what the results demonstrate, Chi Squared is particularly affected by quantity, the size of the sample is directly proportional to the size of the calculated chi square. The more data that is used the higher that chance of the data being normally distributed and thus, the output being reliable. At the same time if the sample size is too large than it becomes difficult to see any relationship between variables because of how 'saturated' the data will make it.

What we can be completely sure of based on the results is that there is a relationship between the choice of funding method and the reason for choosing the financing method. We can infer from that speedy access to funds is a popular choice when looking for the right type of funding. Results from the crowdfunded projects stated that the reason fund

seekers chose crowdfunding was because of the project publicity crowdfunding platforms offer.

Chart 10



Source: Excel, Crowdfunding collation

#### 4.3 Thematic Inferences

Factor Analysis is a correlational method that tries to draw relationships from a number of variables and sorts them into factors which are then "themed" based on the value of each variable. Usually, the criteria for picking the variables are numbers that are above 0.4 or 0.5 for positive relations and -0.4 and -0.5 for negative relations. Because of the size of the data set, the data shall be sorted into three factor loadings.

The tables below demonstrate the rotated component matrix for SMEs and for Microfinance Institutions with the different data loadings. As with chi squared, the more data you have, the more reliable your matrix.

Table 1: Rotated Factor Component Matrix SMEs

Rotated Component Matrix

|  | Co          | тропе | ent  |
|--|-------------|-------|------|
|  | 1           | 2     | 3    |
| What is the most pressing challenge you firm faces?        | 18          | 31    | .75  |
| What type of financing method does your organization       | 14          | 1.44  | .11  |
| usually seek out?  |             |       |      |
| What is the size of the fund usually sourced?              | .36         | .01   | 1.25 |
| What is the reason for your choice in financing method?    | .42         | .04   | .40  |
| Does IT and Technology play a role in your organization?   | .07         | 01    | .01  |
| Does your organization use or have considered using online | 02          | 27    | .12  |
| payment systems for operations?                            |             |       |      |
| Which crowdfunding model sounds appealing?                 | <b>1.43</b> | .24   | 05   |

Source: PSPP, SME collation

Based off the results Component 1 and 3 show a relationship that is formed between the other variables and so they will be the focus of this discussion. Component 1 shall be termed "Financing choice" and Component 3 should be termed "Funding".

Table 2: Rotated Factor Component Matrix Microfinance Institutions

Rotated Component Matrix

|   | Co   | mpone | nt   |
|---|------|-------|------|
|   | 1    | 2     | 3    |
| What type of Microfinance Institution are you?                  | .21  | .06   | 1.33 |
| How long does it take to get a loan?                            | 03   | 06    | 29   |
| What is the size of the smallest loan you have ever distributed | .00  | 09    | 02   |
| What is the size of the largest loan you have ever distributed? | 02   | 02    | .42  |
| What are majority of the loans used for?                        | .23  | .12   | .01  |
| How long does it take for the loan to be paid back?             | 1.56 | 18    | .56  |
| What interest rates are charged for the options below per       | 1.52 | 24    | 17   |
| annum?  |      |       |      |
| What is the most pressing challenge your firm faces below?      | 08   | 1.61  | 10   |

Source: PSPP, Microfinance collation

Once again it is Components 1 and 3 that shall be focused on. Component 1 will be termed "Loan agreement" whereas Component 3 will be termed "Loan structure".

What we know for the Factors created for the SMEs is that, in an ideal world, Financing choice and Funding are extremely related which mirrors what was stated in the literature by Addotei (2012) who believed that trade credit seems to be the preferred method of financing in emerging markets, because of the flexible repayment period. The same would go for Microfinance Institutions, where the Loan agreement is related to the Loan Structure. But it is to ne noted that with Factor Analysis the scaled falls between 0 and 1. The results indicate that there are outliers with some of the variables that were chosen. The outliers are evident in the model because of how small the sample size and so once cannot truly be sure of the significance of these two factors unless the sample size is larger.

#### **CHAPTER 5**

## **CONCLUSIONS & RECOMMENDATIONS**

## **5.1 Chapter Introduction**

In this chapter each objective was assessed in comparison with the literature and the results to determine whether Crowdfunding could really be a better alternative to microfinance for SMEs in Ghana.

#### **5.2 Conclusion**

1. Define the structures and background for Microfinance and Crowdfunding Institutions

In the literature review, The Grameen Bank stated the cost of taking out a microfinance loan is the cost of the fund (which would be the principle) plus 10%. Halloway pointed however that since the inception of microfinance, rates have gone up to 70% per annum in some markets. The results from the study demonstrate that in Accra, microfinance Institutions tend to charge over 60% per annum for microfinance loans. The literature argued that because of the high interest rate charge, microfinance institutions were facing default repayments from their clients. The study showed that while this was a challenge that institutions in Accra also faced. Wren (2005) in particular discussed three microfinance models that were common in developing countries although Andah (2012) demonstrates that Ghana's microfinance model much more elaborate. It has adapted five types to suit the formal, semi-formal and informal sector that Ghana's economic set up is made up of. The crowdfunding structures outlined by Hemer (2011) actually mimic the financing options available for SMEs discussed by Fatoki (2014). The only difference is that the crowdfunding model is only available as an online platform. This is a huge deterrent in a country like Ghana where, as of 2011 internet usage was only 8.4% of the

population (Quarshie 2012). Also the results of the study show that majority of the sample studied had not heard of microfinance and the few that had used it admitted that a limiting factor was how long it took to source funds.

## 2. Identify the motivation for SMEs choosing specific financing options.

Addotei (2012) believed that trade credit was a preferred method of financing in developing countries because of the flexibility that the structure allows and therefor the motivation to undertake risky projects. The results demonstrated that in Accra the preferred financing option is family because of how fast and how quick one can access the funds. It was illuminating to see that the size of the fund that SMEs are usually looking for to use as working capital is low (Between 1,000 GHC- 20,000 GHC). Which would have an effect on the financing options. What the literature failed to mention is the lack of publicity that SMEs face and how it could affect the financing that they receive. The SMEs that answered the questionnaire stated that the most pressing issue was access to capital and crowdfunding provides that avenue as well as project publicity which is an added advantage.

It was discovered during the investigation, that one thing that limited SME access to crowdfunding platforms was the requirements to set up a crowdfund account. The data showed that majority of respondents needed at least video describing their project and bank account details. Some needed proof of credibility, and a video with bank account details. With platforms such as Kickstarter an address in the United States is needed (for verification purposes).

3. Find out if Micro financing and Crowdfunding Institutions as they exist are able to satisfy the expectations that motivate SMEs to choose them

It seems that based off the first two objectives, SMEs will always face a trade off between Microfinance Institutions and Crowdfunding Institutions. Especially if the size of the fund lies between 1,000 GHC and 20,000 GHC. Consider their two main motivations for picking a financing option. Speed and Low cost. If they pick a microfinance institution they would have access to the capital in 7 days according to the study. But the cost of acquiring the fund will be more than half of the size of the fund. Alternatively, if they pick a crowdfunding platform, is it worth it to have to set up an account, set up a presentation, and wait for the fund (when there is no guarantee of time period or of access to capital) which was between 1,000 GHC- 20,000 GHC. Both financing options have advantages which satisfy each motivation but they do not satisfy both.

## 4. Draw conclusions for the preferred financing option for SME's in Ghana

What the investigation has shown is that SMEs are not concerned with a specific structure. While a lot of them found the model appealing because of the donation and reward options it offered, it is not a concept that is really known in Ghana for it to make an impact. It is evident from the study that if SMEs can get funding quickly and at the least possible cost then that is the option that will be used. And while those are incentives that are parallel to what crowdfunding offers, speed will always be a significant limiting factor.

#### 5.2 Recommendations to the Stakeholders

## 1. Microfinance Institutions

What was interesting to find during the data collection process, how many unregistered Microfinance Institutions exist, despite the sorting that the literature states. When Bank of Ghana released a list of if institutions they were closing in affected the samples size of the investigation drastically. At the same time however, it is a testimony to the volatile financial services industry in Ghana. Which only further emphasizes the trouble that SMEs face when seeking financing. Microfinance Institutions need to be extremely transparent in their proceedings but also need to lower their interest rates in order to attract SMEs. Microfinance Institutions have the advantage of access to capital quickly which is a primary focus for SMEs. But if the interest rate is too high. They will be constantly be facing a trade of between speed of fund and cost of fund.

## 2. Crowdfunding Platforms

If a crowdfund were to be set up in Ghana of course the structure would have to be adapted for the local context. Speed and technology is a significant limiting factor that is the reason it is not an attractive alternative financing method and the reason there is little awareness of it in Accra. It has the advantage of a low cost structure which is something developing countries like Ghana need.

#### 3.SMEs

The National Board of Small Scale Industries need to give a contextual definition of SMEs in terms of Operating Income. This is because the results show that majority of the funds sourced is intended for working capital. By doing so it is easier to determine how much each SMEs has and what they need. One could then come up with structures that address the financial needs of SMEs. Gibson (2008) tried to define an SME within the Ghanaian

context stated that that formal Ghanaian SMEs are defined as companies that have a turnover of a minimum of US\$2,370,000 which is inconsistent with the size of the fund sourced from the study.

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## **APPENDICIES**

100.0

## **Appendix 1: Data Analysis Output**

Table 1: SME Pressing Challenges Faced

| ١ | What is the most pressing challenge you firm faces? |       |           |         |               |             |  |  |  |  |
|---|---|-------|-----------|---------|---------------|-------------|--|--|--|--|
|   | Value Label   | Value | Frequency | Percent | Valid Percent | Cum Percent |  |  |  |  |
|   | Access to Capital                                   | 1     | 21        | 60.00   | 60.00         | 60.00       |  |  |  |  |
|   | Regulatory  | 2     | 5         | 14.29   | 14.29         | 74.29       |  |  |  |  |
|   | Lack of Resources                                   | 3     | 6         | 17.14   | 17.14         | 91.43       |  |  |  |  |
|   | Lack of Branding                                    | 4     | 1         | 2.86    | 2.86          | 94.29       |  |  |  |  |
|   | Other   | 5     | 2         | 5.71    | 5.71          | 100.00      |  |  |  |  |

100.0

Total What is the most pressing challenge you firm faces?

| N       | Valid   | 35   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 1.80 |
| Std Dev |         | 1.18 |
| Minimum |         | 1.00 |
| Maximum |         | 5.00 |

Source: PSPP, SME data coalition

Table 2. Contingency Table, How long does it take to get a loan?

How long does it take to get a loan? \* What is the size of the largest loan you have ever distributed? [count. row %, column %, total %].

| ever distributed? [count, row %, column %, total %]. |         |  |           |           |         |  |  |  |
|--|---------|--|-----------|-----------|---------|--|--|--|
|  | What is | What is the size of the largest loan you have ever |           |           |         |  |  |  |
|  |         | distributed?                                       |           |           |         |  |  |  |
| How long   | 10,000  | 90,000   | 600,000   | More than | Total   |  |  |  |
| does it  | GHC-    | GHC-   | GHC-      | 5,000,000 |         |  |  |  |
| take to get  | 80,000  | 500,000  | 1,000,000 | GHC       |         |  |  |  |
| a loan?  | GHC     | GHC  | GHC       |           |         |  |  |  |
| 1 week   | 6.00    | 7.00   | 2.00      | .00       | 15.00   |  |  |  |
|  | 40.00%  | 46.67%   | 13.33%    | .00%      | 100.00% |  |  |  |
|  | 66.67%  | 87.50%   | 100.00%   | .00%      | 75.00%  |  |  |  |
|  | 30.00%  | 35.00%   | 10.00%    | .00%      | 75.00%  |  |  |  |
| Less than 2<br>weeks                                 | 1.00    | 1.00   | .00       | .00       | 2.00    |  |  |  |
|  | 50.00%  | 50.00%   | .00%      | .00%      | 100.00% |  |  |  |
|  | 11.11%  | 12.50%   | .00%      | .00%      | 10.00%  |  |  |  |
|  | 5.00%   | 5.00%  | .00%      | .00%      | 10.00%  |  |  |  |
| Between 2<br>weeks and<br>1 month                    | 2.00    | .00  | .00       | 1.00      | 3.00    |  |  |  |
|  | 66.67%  | .00%   | .00%      | 33.33%    | 100.00% |  |  |  |
|  | 22.22%  | .00%   | .00%      | 100.00%   | 15.00%  |  |  |  |
|  | 10.00%  | .00%   | .00%      | 5.00%     | 15.00%  |  |  |  |
| Total  | 9.00    | 8.00   | 2.00      | 1.00      | 20.00   |  |  |  |
|  | 45.00%  | 40.00%   | 10.00%    | 5.00%     | 100.00% |  |  |  |
|  | 100.00% | 100.00%  | 100.00%   | 100.00%   | 100.00% |  |  |  |
|  | 45.00%  | 40.00%   | 10.00%    | 5.00%     | 100.00% |  |  |  |

Chi-square tests.

| Statistic                    | Value | df | Asymp. Sig. (2-tailed) |
|------------------------------|-------|----|------------------------|
| Pearson Chi-Square           | 8.16  | 6  | .227                   |
| Likelihood Ratio             | 7.92  | 6  | .244                   |
| Linear-by-Linear Association | .62   | 1  | .431                   |
| N of Valid Cases             | 20    |    |                        |

Source: PSPP, Microfinance data coalition

Table 3: Size of fund Sourced

What is the size of the fund usually sourced?

| Value Label         | Value | Frequency | Percent | Valid   | Cum     |
|---------------------|-------|-----------|---------|---------|---------|
|                     |       |           |         | Percent | Percent |
| 1,000 GHC-5,000 GHC | 1     | 3         | 8.57    | 8.57    | 8.57    |
| 6,000 GHC-20,000    | 2     | 12        | 34.29   | 34.29   | 42.86   |
| GHC                 |       |           |         |         |         |
| 50,000 GHC-100,000  | 3     | 9         | 25.71   | 25.71   | 68.57   |
| GHC                 |       |           |         |         |         |
| 150,000 GHC-500,000 | 4     | 6         | 17.14   | 17.14   | 85.71   |
| GHC                 |       |           |         |         |         |
| 600,000 GHC-        | 5     | 1         | 2.86    | 2.86    | 88.57   |
| 1,000,000 GHC       | _     |           |         |         |         |
| 2,000,000 GHC and   | 6     | 4         | 11.43   | 11.43   | 100.00  |
| above               |       |           |         |         |         |
|                     | Total | 35        | 100.0   | 100.0   |         |

What is the size of the fund usually sourced?

| N       | Valid<br>Missing | 35   |
|---------|------------------|------|
| Mean    | Missing          | 3.06 |
| Minimum |                  | 1.00 |
| Maximum |                  | 6.00 |

Source: PSPP, SME coalition

Table 4: Size of Largest Loan

What is the size of the largest loan you have ever distributed?

| Value Label                   | Value | Frequency | Percent | Valid   | Cum     |
|-------------------------------|-------|-----------|---------|---------|---------|
|                               |       |           |         | Percent | Percent |
| 10,000 GHC- 80,000<br>GHC     | 1     | 9         | 45.00   | 45.00   | 45.00   |
| 90,000 GHC- 500,000<br>GHC    | 2     | 8         | 40.00   | 40.00   | 85.00   |
| 600,000 GHC-<br>1,000,000 GHC | 3     | 2         | 10.00   | 10.00   | 95.00   |
| More than 5,000,000<br>GHC    | 5     | 1         | 5.00    | 5.00    | 100.00  |
|                               | Total | 20        | 100.0   | 100.0   |         |

What is the size of the largest loan you have ever distributed?

| N       | Valid   | 20   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 1.80 |
| Std Dev |         | 1.01 |
| Minimum |         | 1.00 |
| Maximum |         | 5.00 |

Source: PSPP, Microfinance coalition

Table 5: Length it takes to get a loan

How long does it take to get a loan?

| 110 W 1011g tables it take to get a roam. |           |  |  |  |  |
|---|-----------|--|--|--|--|
| Value                                     | Frequency | Percent  | Valid  | Cum  |  |
|   |           |  | Percent  | Percent  |  |
| 1   | 15        | 75.00  | 75.00  | 75.00  |  |
| 2   | 2         | 10.00  | 10.00  | 85.00  |  |
| 3   | 3         | 15.00  | 15.00  | 100.00   |  |
| Total                                     | 20        | 100.0  | 100.0  |  |  |
|   | Value     | Value         Frequency           1         15           2         2           3         3 | Value         Frequency         Percent           1         15         75.00           2         2         10.00           3         3         15.00 | Value         Frequency         Percent         Valid Percent           1         15         75.00         75.00           2         2         10.00         10.00           3         3         15.00         15.00 |  |

How long does it take to get a loan?

|         |         | 0    |
|---------|---------|------|
| N       | Valid   | 20   |
|         | Missing | 0    |
| Mean    |         | 1.40 |
| Std Dev |         | .75  |
| Minimum |         | 1.00 |
| Maximum |         | 3.00 |

Source: PSPP, Microfinance coalition

Table 6: Type of funding usually used

What type of financing method does your organization usually seek out?

| Value Label        | Value | Frequency | Percent | Valid Percent | Cum Percent |
|--------------------|-------|-----------|---------|---------------|-------------|
| Venture Capitalist | 1     | 5         | 14.29   | 14.29         | 14.29       |
| Equity             | 2     | 13        | 37.14   | 37.14         | 51.43       |
| Bank Loan          | 3     | 5         | 14.29   | 14.29         | 65.71       |
| Microfinance       | 4     | 7         | 20.00   | 20.00         | 85.71       |
| Family             | 5     | 2         | 5.71    | 5.71          | 91.43       |
| Other              | 6     | 3         | 8.57    | 8.57          | 100.00      |
|                    | Total | 35        | 100.0   | 100.0         |             |

What type of financing method does your organization usually seek out?

| N       | Valid   | 35   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 2.91 |
| Minimum |         | 1.00 |
| Maximum |         | 6.00 |

Source: PSPP, SME coalition

Table 7: Contingency Table. Financing method vs reason

|                    | What is the reason for your choice in financing<br>method? |           |           |         |         |
|--------------------|--|-----------|-----------|---------|---------|
|                    |  |           |           |         |         |
| What type of       | Speedy   | Little to | Flexible  | Other   | Total   |
| financing          | access to  | no        | Repayment |         |         |
| method does        | funds  | interest  | Period    |         |         |
| your               |  | rates     |           |         |         |
| organization       |  |           |           |         |         |
| usually seek out?  |  |           |           |         |         |
| Venture Capitalist | 4.00   | 1.00      | .00       | .00     | 5.00    |
|                    | 80.00%   | 20.00%    | .00%      | .00%    | 100.00% |
|                    | 20.00%   | 10.00%    | .00%      | .00%    | 14.29%  |
|                    | 11.43%   | 2.86%     | .00%      | .00%    | 14.29%  |
| Equity             | 3.00   | 9.00      | 1.00      | .00     | 13.00   |
|                    | 23.08%   | 69.23%    | 7.69%     | .00%    | 100.00% |
|                    | 15.00%   | 90.00%    | 33.33%    | .00%    | 37.14%  |
|                    | 8.57%  | 25.71%    | 2.86%     | .00%    | 37.14%  |
| Bank Loan          | 4.00   | .00       | .00       | 1.00    | 5.00    |
|                    | 80.00%   | .00%      | .00%      | 20.00%  | 100.00% |
|                    | 20.00%   | .00%      | .00%      | 50.00%  | 14.29%  |
|                    | 11.43%   | .00%      | .00%      | 2.86%   | 14.29%  |
| Microfinance       | 6.00   | .00       | .00       | 1.00    | 7.00    |
|                    | 85.71%   | .00%      | .00%      | 14.29%  | 100.00% |
|                    | 30.00%   | .00%      | .00%      | 50.00%  | 20.00%  |
|                    | 17.14%   | .00%      | .00%      | 2.86%   | 20.00%  |
| Family             | 1.00   | .00       | 1.00      | .00     | 2.00    |
|                    | 50.00%   | .00%      | 50.00%    | .00%    | 100.00% |
|                    | 5.00%  | .00%      | 33.33%    | .00%    | 5.71%   |
|                    | 2.86%  | .00%      | 2.86%     | .00%    | 5.71%   |
| Other              | 2.00   | .00       | 1.00      | .00     | 3.00    |
|                    | 66.67%   | .00%      | 33.33%    | .00%    | 100.00% |
|                    | 10.00%   | .00%      | 33.33%    | .00%    | 8.57%   |
|                    | 5.71%  | .00%      | 2.86%     | .00%    | 8.57%   |
| Total              | 20.00  | 10.00     | 3.00      | 2.00    | 35.00   |
|                    | 57.14%   | 28.57%    | 8.57%     | 5.71%   | 100.00% |
|                    | 100.00%  | 100.00%   | 100.00%   | 100.00% | 100.00% |
|                    | 57.14%   | 28.57%    | 8.57%     | 5.71%   | 100.00% |

Chi-square tests.

| Statistic          | Value | df | Asymp. Sig. (2-tailed) |
|--------------------|-------|----|------------------------|
| Pearson Chi-Square | 28.75 | 15 | .017                   |

| Statistic                    | Value | df | Asymp. Sig. (2-tailed) |
|------------------------------|-------|----|------------------------|
| Likelihood Ratio             | 30.74 | 15 | .010                   |
| Linear-by-Linear Association | .06   | 1  | .804                   |
| N of Valid Cases             | 35    |    |                        |

Source: PSPP, Microfinance coalition

Table 8 Interest Rates per annum

What interest rates are charged for the options below per annum?

| Value Label             | Value | Frequency | Percent | Valid   | Cum     |
|-------------------------|-------|-----------|---------|---------|---------|
|                         |       |           |         | Percent | Percent |
| Working Capital (0-10%) | 1     | 2         | 10.00   | 10.00   | 10.00   |
| Working Capital (More   | 5     | 17        | 85.00   | 85.00   | 95.00   |
| than 30%)               |       |           |         |         |         |
| Working Capital,Fixed   | 10    | 1         | 5.00    | 5.00    | 100.00  |
| Assets (More than 30%)  |       |           |         |         |         |
|                         | Total | 20        | 100.0   | 100.0   |         |

What interest rates are charged for the options below per annum?

| N       | Valid   | 20    |
|---------|---------|-------|
|         | Missing | 0     |
| Mean    |         | 4.85  |
| Std Dev |         | 1.73  |
| Minimum |         | 1.00  |
| Maximum |         | 10.00 |

Source: PSPP, Microfinance Coalition

Table 9: Contingency table, Type of Challenges vs Interest Rates

|                    | What interes     | st rates are cha | rged for the options |         |
|--------------------|------------------|------------------|----------------------|---------|
|                    | Tritat triter co | below per am     |                      |         |
| What is the most   | Working          | Working          | Working              | Total   |
| pressing challenge | Capital          | Capital          | Capital,Fixed        | 201112  |
| your firm faces    | (0-10%)          | (More than       | Assets (More         |         |
| below?             | (0 10/0)         | 30%)             | than 30%)            |         |
| Funding            | .00              | 7.00             | .00                  | 7.00    |
|                    | .00%             | 100.00%          | .00%                 | 100.00% |
|                    | .00%             | 50.00%           | .00%                 | 43.75%  |
|                    | .00%             | 43.75%           | .00%                 | 43.75%  |
| Administrative     | .00              | 1.00             | .00                  | 1.00    |
|                    | .00%             | 100.00%          | .00%                 | 100.00% |
|                    | .00%             | 7.14%            | .00%                 | 6.25%   |
|                    | .00%             | 6.25%            | .00%                 | 6.25%   |
| Regulatory         | .00              | 1.00             | 1.00                 | 2.00    |
| ,                  | .00%             | 50.00%           | 50.00%               | 100.00% |
|                    | .00%             | 7.14%            | 100.00%              | 12.50%  |
|                    | .00%             | 6.25%            | 6.25%                | 12.50%  |
| Loan Repayment     | .00              | 3.00             | .00                  | 3.00    |
|                    | .00%             | 100.00%          | .00%                 | 100.00% |
|                    | .00%             | 21.43%           | .00%                 | 18.75%  |
|                    | .00%             | 18.75%           | .00%                 | 18.75%  |
| Other              | 1.00             | 2.00             | .00                  | 3.00    |
|                    | 33.33%           | 66.67%           | .00%                 | 100.00% |
|                    | 100.00%          | 14.29%           | .00%                 | 18.75%  |
|                    | 6.25%            | 12.50%           | .00%                 | 18.75%  |
| Total              | 1.00             | 14.00            | 1.00                 | 16.00   |
|                    | 6.25%            | 87.50%           | 6.25%                | 100.00% |
|                    | 100.00%          | 100.00%          | 100.00%              | 100.00% |
|                    | 6.25%            | 87.50%           | 6.25%                | 100.00% |

Chi-square tests.

| Statistic                    | Value | df | Asymp. Sig. (2-tailed) |
|------------------------------|-------|----|------------------------|
| Pearson Chi-Square           | 12.00 | 8  | .151                   |
| Likelihood Ratio             | 8.24  | 8  | .411                   |
| Linear-by-Linear Association | .51   | 1  | .475                   |
| N of Valid Cases             | 16    |    |                        |

Source: PSPP, Microfinance coalition

Table 10: Funding challenges

What is the most pressing challenge your firm faces below?

| Value Label    | Value | Frequency | Percent | Valid Percent | Cum Percent |
|----------------|-------|-----------|---------|---------------|-------------|
| Funding        | 1     | 7         | 35.00   | 43.75         | 43.75       |
| Administrative | 2     | 1         | 5.00    | 6.25          | 50.00       |
| Regulatory     | 3     | 2         | 10.00   | 12.50         | 62.50       |
| Loan Repayment | 4     | 3         | 15.00   | 18.75         | 81.25       |
| Other          | 5     | 3         | 15.00   | 18.75         | 100.00      |
|                |       | 4         | 20.00   | Missing       |             |
|                | Total | 20        | 100.0   | 100.0         |             |

What is the most pressing challenge your firm faces below?

| N       | Valid   | 16   |
|---------|---------|------|
|         | Missing | 4    |
| Mean    |         | 2.63 |
| Std Dev |         | 1.67 |
| Minimum |         | 1.00 |
| Maximum |         | 5.00 |

Source: PSPP, Microfinance coalition

# **Factor Analysis**

Table 11: Factor Analysis, SME

| _  |   |   |   |    |     |     |
|----|---|---|---|----|-----|-----|
| Co | m | m | m | ıa | lıt | 165 |

|  | Initial | Extraction |
|--|---------|------------|
| What is the most pressing challenge you firm faces?        | 1.36    | .70        |
| What type of financing method does your organization       | 2.14    | 2.11       |
| usually seek out?  |         |            |
| What is the size of the fund usually sourced?              | 2.00    | 1.70       |
| What is the reason for your choice in financing method?    | .75     | -33        |
| Does IT and Technology play a role in your organization?   | .08     | .01        |
| Does your organization use or have considered using online | .30     | .09        |
| payment systems for operations?                            |         |            |
| Which crowdfunding model sounds appealing?                 | 2.18    | 2.11       |

Total Variance Explained

|           | Initial Eigenvalues |          |            | Extr  | action Sums<br>Loading |            |
|-----------|---------------------|----------|------------|-------|------------------------|------------|
| Component | Total               | % of     | Cumulative | Total | % of                   | Cumulative |
|           |                     | Variance | %          |       | Variance               | %          |
| 1         | 2.78                | 31.62    | 31.62      | 2.78  | 31.62                  | 31.62      |
| 2         | 2.40                | 27.25    | 58.87      | 2.40  | 27.25                  | 58.87      |
| 3         | 1.87                | 21.20    | 80.07      | 1.87  | 21.20                  | 80.07      |
| 4         | 1.03                | 11.76    | 91.83      |       |                        |            |
| 5         | .44                 | 5.06     | 96.89      |       |                        |            |
| 6         | .23                 | 2.61     | 99.50      |       |                        |            |
| 7         | .04                 | .50      | 100.00     |       |                        |            |

|           | Rotation Sums of Squared |         |       |  |  |  |
|-----------|--------------------------|---------|-------|--|--|--|
|           |                          | Loading | gs    |  |  |  |
| Component | Total % of Cumulative    |         |       |  |  |  |
|           | Variance %               |         |       |  |  |  |
| 1         | 2.41                     | 27.39   | 27.39 |  |  |  |
| 2         | 2.31                     | 26.28   | 53.67 |  |  |  |
| 3         | 2.32                     | 26.40   | 80.07 |  |  |  |
| 4         |                          |         |       |  |  |  |

|             | Rotation Sums of Squared<br>Loadings |                  |                 |  |  |
|-------------|--------------------------------------|------------------|-----------------|--|--|
| Component   | Total                                | % of<br>Variance | Cumulative<br>% |  |  |
| 5<br>6<br>7 |                                      |                  |                 |  |  |

Component Matrix

|  | Co   | тропе | mt         |
|--|------|-------|------------|
|  | 1    | 2     | 3          |
| What is the most pressing challenge you firm faces?        | .24  | 66    | -45        |
| What type of financing method does your organization       | .31  | 1.17  | ·45<br>.81 |
| usually seek out?  |      |       |            |
| What is the size of the fund usually sourced?              | 1.02 | 57    | -57        |
| What is the reason for your choice in financing method?    | ·57  | 11    | .00        |
| Does IT and Technology play a role in your organization?   | .06  | 01    | 05         |
| Does your organization use or have considered using online | 01   | 29    | 03         |
| payment systems for operations?                            |      |       |            |
| Which crowdfunding model sounds appealing?                 | 1.12 | .40   | 83         |

Rotated Component Matrix

|  | Co   | mpone | mt   |
|--|------|-------|------|
|  | 1    | 2     | 3    |
| What is the most pressing challenge you firm faces?        | 18   | 31    | .75  |
| What type of financing method does your organization       | 14   | 1.44  | .11  |
| usually seek out?  |      |       |      |
| What is the size of the fund usually sourced?              | .36  | .01   | 1.25 |
| What is the reason for your choice in financing method?    | .42  | .04   | .40  |
| Does IT and Technology play a role in your organization?   | .07  | 01    | .01  |
| Does your organization use or have considered using online | 02   | 27    | .12  |
| payment systems for operations?                            |      |       |      |
| Which crowdfunding model sounds appealing?                 | 1.43 | .24   | 05   |

Table 12: Factor Analysis, Microfinance Institution

# Communalities

|  | Initial | Extraction |
|--|---------|------------|
| What type of Microfinance Institution are you?             | 1.88    | 1.81       |
| How long does it take to get a loan?                       | .48     | .09        |
| What is the size of the smallest loan you have ever        | .11     | .01        |
| distributed  |         |            |
| What is the size of the largest loan you have ever         | .46     | .17        |
| distributed?   |         |            |
| What are majority of the loans used for?                   | .11     | .07        |
| How long does it take for the loan to be paid back?        | 2.94    | 2.77       |
| What interest rates are charged for the options below per  | 2.56    | 2.39       |
| annum?   |         |            |
| What is the most pressing challenge your firm faces below? | 2.61    | 2.61       |

Total Variance Explained

| Total valiance | Total variance Explained |               |            |       |             |            |  |
|----------------|--------------------------|---------------|------------|-------|-------------|------------|--|
|                |                          | Initial Eigen | values     | Extre | action Sums | of Squared |  |
|                |                          |               |            |       | Loading     | gs         |  |
| Component      | Total                    | % of          | Cumulative | Total | % of        | Cumulative |  |
|                |                          | Variance      | %          |       | Variance    | %          |  |
| 1              | 5.33                     | 47.77         | 47.77      | 5.33  | 47.77       | 47.77      |  |
| 2              | 2.52                     | 22.65         | 70.41      | 2.52  | 22.65       | 70.41      |  |
| 3              | 2.07                     | 18.52         | 88.94      | 2.07  | 18.52       | 88.94      |  |
| 4              | -53                      | 4.79          | 93.73      |       |             |            |  |
| 5              | · <b>3</b> 7             | 3.30          | 97.03      |       |             |            |  |
| 6              | .23                      | 2.06          | 99.08      |       |             |            |  |
| 7              | .07                      | .58           | 99.67      |       |             |            |  |
| 8              | .04                      | -33           | 100.00     |       |             |            |  |
|                | Rote                     | ation Sums o  | of Squared | Ì     |             |            |  |
|                | Loadings                 |               |            |       |             |            |  |
| Component      | Total                    | % of          | Cumulative |       |             |            |  |
| _              |                          | Variance      | %          |       |             |            |  |
| 1              | 4.83                     | 43.30         | 43.30      |       |             |            |  |

|           | Rotation Sums of Squared<br>Loadings |          |            |  |  |
|-----------|--------------------------------------|----------|------------|--|--|
| Component | Total                                | % of     | Cumulative |  |  |
|           |                                      | Variance | %          |  |  |
| 2         | 2.71                                 | 24.31    | 67.61      |  |  |
| 3         | 2.38                                 | 21.33    | 88.94      |  |  |
| 4         |                                      |          |            |  |  |
| 5         |                                      |          |            |  |  |
| 6         |                                      |          |            |  |  |
| 7         |                                      |          |            |  |  |
| 8         |                                      |          |            |  |  |

Component Matrix

|  | C    | ompone | nt    |
|--|------|--------|-------|
|  | 1    | 2      | 3     |
| What type of Microfinance Institution are you?             | .56  | 45     | -1.14 |
| How long does it take to get a loan?                       | 10   | .14    | .25   |
| What is the size of the smallest loan you have ever        | .02  | .09    | .00   |
| distributed  |      |        |       |
| What is the size of the largest loan you have ever         | .11  | 09     | 39    |
| distributed?   |      |        |       |
| What are majority of the loans used for?                   | .18  | 16     | .09   |
| How long does it take for the loan to be paid back?        | 1.64 | 28     | .00   |
| What interest rates are charged for the options below per  | 1.41 | 02     | .64   |
| annum?   |      |        |       |
| What is the most pressing challenge your firm faces below? | 53   | -1.48  | .38   |

Rotated Component Matrix

|   | Co   | тропе | nt   |
|---|------|-------|------|
|   | 1    | 2     | 3    |
| What type of Microfinance Institution are you?                  | .21  | .06   | 1.33 |
| How long does it take to get a loan?                            | 03   | 06    | 29   |
| What is the size of the smallest loan you have ever distributed | .00  | 09    | 02   |
| What is the size of the largest loan you have ever distributed? | 02   | 02    | .42  |
| What are majority of the loans used for?                        | .23  | .12   | .01  |
| How long does it take for the loan to be paid back?             | 1.56 | 18    | .56  |
| What interest rates are charged for the options below per       | 1.52 | 24    | 17   |
| annum?  |      |       |      |
| What is the most pressing challenge your firm faces below?      | 08   | 1.61  | 10   |

Table 13: Crowdfunding Frequencies

How did you hear about crowdfunding

| Value Label      | Value | Frequency | Percent | Valid Percent | Cum Percent |
|------------------|-------|-----------|---------|---------------|-------------|
| Through a friend | 1     | 3         | 30.00   | 30.00         | 30.00       |
| Online           | 2     | 7         | 70.00   | 70.00         | 100.00      |
| Total            |       | 10        | 100.0   | 100.0         |             |

## How did you hear about crowdfunding

| N       | Valid   | 10   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 1.70 |
| Std Dev |         | .48  |
| Minimum |         | 1.00 |
| Maximum |         | 2.00 |

Did you seek other methods of funding befor crowdfunding?

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
| No          | 0     | 5         | 50.00   | 50.00         | 50.00       |
| Yes         | 1     | 5         | 50.00   | 50.00         | 100.00      |
|             | Total | 10        | 100.0   | 100.0         |             |

# Did you seek other methods of funding befor crowdfunding?

| N       | Valid   | 10   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | .50  |
| Std Dev |         | -53  |
| Minimum |         | .00  |
| Maximum |         | 1.00 |

#### If Yes which one?

| II I CO WHICH OHC: |       |           |         |               |             |
|--------------------|-------|-----------|---------|---------------|-------------|
| Value Label        | Value | Frequency | Percent | Valid Percent | Cum Percent |
| Venture Capitalist | 1     | 1         | 10.00   | 16.67         | 16.67       |
| Equity             | 2     | 1         | 10.00   | 16.67         | 33-33       |
| Bank Loan          | 3     | 1         | 10.00   | 16.67         | 50.00       |
| Family             | 5     | 2         | 20.00   | 33-33         | 83.33       |
| Other              | 6     | 1         | 10.00   | 16.67         | 100.00      |
|                    | Ι.    | 4         | 40.00   | Missing       |             |

| Value Label | Value | Frequency | Percent | Valid Percent | Cum Percent |
|-------------|-------|-----------|---------|---------------|-------------|
|             | Total | 10        | 100.0   | 100.0         |             |

### If Yes which one?

| N       | Valid   | 6    |
|---------|---------|------|
|         | Missing | 4    |
| Mean    |         | 3.67 |
| Std Dev |         | 1.97 |
| Minimum |         | 1.00 |
| Maximum |         | 6.00 |

#### If No why?

| 11 110 Hay.   |       |           |         |                  |                |
|---|-------|-----------|---------|------------------|----------------|
| Value Label   | Value | Frequency | Percent | Valid<br>Percent | Cum<br>Percent |
| Just believed it would<br>work                      | 2     | 3         | 30.00   | 60.00            | 60.00          |
| Other financing methods<br>did not seem appropriate | 3     | 2         | 20.00   | 40.00            | 100.00         |
|   |       | 5         | 50.00   | Missing          |                |
|   | Total | 10        | 100.0   | 100.0            |                |

### If No why?

| N       | Valid   | 5    |
|---------|---------|------|
|         | Missing | 5    |
| Mean    |         | 2.40 |
| Std Dev |         | -55  |
| Minimum |         | 2.00 |
| Maximum |         | 3.00 |

What type of funding model did you pick

| What type of failung model and you plak |       |           |         |               |             |  |  |
|---|-------|-----------|---------|---------------|-------------|--|--|
| Value Label                             | Value | Frequency | Percent | Valid Percent | Cum Percent |  |  |
| Donations                               | 1     | 3         | 30.00   | 30.00         | 30.00       |  |  |
| Reward                                  | 2     | 6         | 60.00   | 60.00         | 90.00       |  |  |
| Equity                                  | 3     | 1         | 10.00   | 10.00         | 100.00      |  |  |
|   | Total | 10        | 100.0   | 100.0         |             |  |  |

## What type of funding model did you pick

| N       | Valid   | 10   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 1.80 |
| Std Dev |         | .63  |
| Minimum |         | 1.00 |
| Maximum |         | 3.00 |

What were the benefits of choosing crowdfunding

| Value Label                    | Value | Frequency | Percent | Valid   | Cum     |
|--------------------------------|-------|-----------|---------|---------|---------|
|                                |       |           |         | Percent | Percent |
| Speedy Access to<br>Funds      | 1     | 3         | 30.00   | 30.00   | 30.00   |
| Little to no interest<br>rates | 2     | 2         | 20.00   | 20.00   | 50.00   |
| Other                          | 4     | 5         | 50.00   | 50.00   | 100.00  |
|                                | Total | 10        | 100.0   | 100.0   |         |

What were the benefits of choosing crowdfunding

| N       | Valid   | 10   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 2.70 |
| Std Dev |         | 1.42 |
| Minimum |         | 1.00 |
| Maximum |         | 4.00 |

What were the disadvantages of choosing crowdfunding

| Value Label                      | Value | Frequency | Percent | Valid<br>Percent | Cum<br>Percent |
|----------------------------------|-------|-----------|---------|------------------|----------------|
| Long waiting period<br>for funds | 2     | 6         | 60.00   | 60.00            | 60.00          |
| Other                            | 4     | 4         | 40.00   | 40.00            | 100.00         |
|                                  | Total | 10        | 100.0   | 100.0            |                |

What were the disadvantages of choosing crowdfunding

| N       | Valid   | 10   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 2.80 |
| Std Dev |         | 1.03 |
| Minimum |         | 2.00 |
| Maximum |         | 4.00 |

How long did it take for you to recieve the fund

| Tion long that it that for you to receive the rand |       |           |         |         |         |
|--|-------|-----------|---------|---------|---------|
| Value Label  | Value | Frequency | Percent | Valid   | Cum     |
|  |       |           |         | Percent | Percent |
| Less than 2 weeks                                  | 1     | 2         | 20.00   | 20.00   | 20.00   |
| Between 2 weeks and 1<br>month                     | 2     | 3         | 30.00   | 30.00   | 50.00   |
| More than a month but<br>less than 6 months        | 3     | 5         | 50.00   | 50.00   | 100.00  |
|  | Total | 10        | 100.0   | 100.0   |         |

| How long | did it take for | you to | recieve the fund |
|----------|-----------------|--------|------------------|
| N        | Valid           | 10     |                  |

|         | Missing | 0    |
|---------|---------|------|
| Mean    |         | 2.30 |
| Std Dev |         | .82  |
| Minimum |         | 1.00 |
| Maximum |         | 3.00 |

What was the size of the fund

| Value Label              | Value | Frequency | Percent | Valid<br>Percent | Cum<br>Percent |
|--------------------------|-------|-----------|---------|------------------|----------------|
| 1,000 GHC- 5,000<br>GHC  | 1     | 7         | 70.00   | 70.00            | 70.00          |
| 6,000 GHC- 20,000<br>GHC | 2     | 3         | 30.00   | 30.00            | 100.00         |
|                          | Total | 10        | 100.0   | 100.0            |                |

### What was the size of the fund

| N       | Valid   | 10   |
|---------|---------|------|
|         | Missing | 0    |
| Mean    |         | 1.30 |
| Std Dev |         | .48  |
| Minimum |         | 1.00 |
| Maximum |         | 2.00 |

What tools did you have to use to obtain the fund?

| Value Label   | Value | Frequency | Percent | Valid   | Cum     |
|---|-------|-----------|---------|---------|---------|
|   |       |           |         | Percent | Percent |
| Videos and Bank Account                             | 7     | 6         | 60.00   | 66.67   | 66.67   |
| Details<br>Videos, Proof of<br>credibility and Bank | 8     | 3         | 30.00   | 33-33   | 100.00  |
| account details                                     |       | 1         | 10.00   | Missing |         |
|   | Total | 10        | 100.0   | 100.0   |         |

## What tools did you have to use to obtain the fund?

| N       | Valid   | 9    |
|---------|---------|------|
|         | Missing | 1    |
| Mean    |         | 7.33 |
| Std Dev |         | .50  |
| Minimum |         | 7.00 |
| Maximum |         | 8.00 |

# **Appendix 2 : Research Design Questionnaires**

# **QUESTIONNAIRES**

# QUESTIONNAIRE

# **Micro Finance Institutions**

| 1. | How long has the Microfinance Institution been running for?      |
|----|--|
|    | 0-2 years [ ]  |
|    | 3-5 years [ ]  |
|    | 6-9 years [ ]  |
| _  | 10 years & above []  |
| 2. | 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -                          |
|    | 50,000- 90,000 GHc [ ]   |
|    | 100,000-600,000 GHc [ ]  |
|    | 700,000 - 1,000,000 GHc [ ]                                      |
|    | 2,000,000 - 5,000,000 GHc [ ]                                    |
|    | 6,000,000 GHc and above [ ]                                      |
| 3. | What type of Microfinance Institution are you?                   |
|    | Rural and Community Banks [ ]                                    |
|    | Savings and Loans [ ]  |
|    | Financial Non-Governmental Organization [ ]                      |
|    | Credit Union [ ]   |
|    | Other (please specify)   |
|    |  |
| 4. | How long does it take to get a loan?                             |
|    | 1 week [ ]   |
|    | Less than 2 weeks [ ]  |
|    | Between 2 weeks and 1 month [ ]                                  |
|    | More than 1 month, up to 6 months [ ]                            |
|    | 6 months and above [ ]   |
| 5. | What is the size of the smallest loan you have ever distributed? |
|    | Below 1,000 GHc [ ]  |
|    | 1,000 GHc - 5000 GHc [ ]   |
|    | 6,000 GHc- 20,000 GHc [ ]  |
|    | 50,000 GHc- 100,000 GHc [ ]                                      |
|    | 150,000 GHc and above [ ]  |
| 6. | What is the size of the largest loan you have ever distributed?  |
|    | 10,000 GHc - 80,000 GHc [ ]                                      |
|    | 90,000 GHc - 500,000 GHc [ ]                                     |
|    | 600,000 GHc- 1,000,000 GHc [ ]                                   |
|    | 2,000,000 GHc- 5,000,000 GHc [ ]                                 |
|    | More than 5,000,000 GHc [ ]                                      |

7. Majority of loans applied for are used for?

|       | Working Capital and Fixed Assets [ ] Working Capital, Fixed Assets and Infrastructure [ ] Other (please specify) |                |                            |             |                     |                   |  |  |  |  |
|-------|--|----------------|----------------------------|-------------|---------------------|-------------------|--|--|--|--|
| 8.    | What are the stated terms  | of the loans f | or the options             | below?      |                     |                   |  |  |  |  |
|       |  | 1-4 weeks      | 2-6 months                 | 7-12 months | 2 years+            |                   |  |  |  |  |
| Work  | ing Capital  | []             | []                         | []          | []                  |                   |  |  |  |  |
| Work  | ing Capital & Fixed Assets   | []             | []                         | []          | []                  |                   |  |  |  |  |
|       | ing Capital & Fixed Assets & tructure  | []             | []                         | []          | []                  |                   |  |  |  |  |
| Othei |  | []             | []                         | []          | []                  |                   |  |  |  |  |
| 9.    | . On average how long does it take for the loan to be paid back for each of these options?                       |                |                            |             |                     |                   |  |  |  |  |
|       |  | 1-4 weeks      | 2-6 months                 | 7-12 months | 2 years- 5<br>years | More than 5 years |  |  |  |  |
| Work  | ing Capital  | []             | []                         | []          | []                  | []                |  |  |  |  |
| Work  | ing Capital & Fixed Assets   | []             | []                         | []          | []                  | []                |  |  |  |  |
|       | ing Capital & Fixed Assets & tructure  | []             | []                         | []          | []                  | []                |  |  |  |  |
| Othei | -  | []             | []                         | []          | []                  | []                |  |  |  |  |
| 10.   | What interest rates are cha  | rged for the c | options below <sub>l</sub> | per annum?  |                     |                   |  |  |  |  |
|       |  | 0-10 %         | 11-20%                     | 21-25%+     | 26-30%              | More<br>than 30%  |  |  |  |  |
| Work  | ing Capital  | []             | []                         | []          | []                  | []                |  |  |  |  |
| Work  | ing Capital & Fixed Assets   | []             | []                         | []          | []                  | []                |  |  |  |  |
|       | ing Capital & Fixed Assets & tructure  | []             | []                         | []          | []                  | []                |  |  |  |  |
| Othe  | r  | []             | []                         | []          | []                  | []                |  |  |  |  |
|       |  |                |                            |             |                     |                   |  |  |  |  |

[]

Working Capital

| If ye | s go to question 12 if no go   | iny challenges?<br>to question 13                |                             |  |
|-------|--|--|-----------------------------|--|
| Yes   |  |  | []                          |  |
| No    |  |  | []                          |  |
|       | Please tick the most press   | sing type of chal                                | lenge your firm faces below |  |
|       | Funding  | 8-71   | []                          |  |
|       | Administrative   |  | [ ]                         |  |
|       | Regulatory   |  | []                          |  |
|       | Loan Repayment   |  | []                          |  |
|       | Other (please specify)   |  |                             |  |
| 13.   | If loan repayment was pic  | ked please give                                  | reasons                     |  |
|       | o Medium Sized Enterprise<br>What is the main activity (   |  |                             |  |
|       |  |  | r 1                         |  |
|       | Financial Services   |  | []                          |  |
|       | Financial Services<br>Marketing, Branding, Adve  | ertising   | []                          |  |
|       | Marketing, Branding, Adve<br>Media   |  |                             |  |
|       | Marketing, Branding, Adve<br>Media<br>Non Profit Government On   |  |                             |  |
|       | Marketing, Branding, Adve<br>Media<br>Non Profit Government Or<br>Legal Services   |  | []                          |  |
|       | Marketing, Branding, Adve<br>Media<br>Non Profit Government On<br>Legal Services<br>Telecommunications   |  |                             |  |
|       | Marketing, Branding, Adve<br>Media<br>Non Profit Government On<br>Legal Services<br>Telecommunications<br>IT and Technology  |  |                             |  |
|       | Marketing, Branding, Adve<br>Media<br>Non Profit Government On<br>Legal Services<br>Telecommunications<br>IT and Technology<br>Education   |  |                             |  |
|       | Marketing, Branding, Adve<br>Media<br>Non Profit Government On<br>Legal Services<br>Telecommunications<br>IT and Technology  |  |                             |  |
| 2.    | Marketing, Branding, Adve<br>Media<br>Non Profit Government On<br>Legal Services<br>Telecommunications<br>IT and Technology<br>Education   | rganization                                      |                             |  |
| 2.    | Marketing, Branding, Adversed Media Non Profit Government On Legal Services Telecommunications IT and Technology Education Other (please specify)  | rganization  en running for?                     |                             |  |
| 2.    | Marketing, Branding, Advended a Non Profit Government On Legal Services Telecommunications IT and Technology Education Other (please specify) How long has the SME been  | rganization                                      |                             |  |
| 2.    | Marketing, Branding, Advended a Non Profit Government On Legal Services Telecommunications IT and Technology Education Other (please specify)  | rganization  en running for?                     |                             |  |
| 2.    | Marketing, Branding, Advended a Non Profit Government On Legal Services Telecommunications IT and Technology Education Other (please specify)  | rganization  en running for?                     |                             |  |
| 2.    | Marketing, Branding, Advended a Non Profit Government On Legal Services Telecommunications IT and Technology Education Other (please specify)  | rganization en running for? [ ] [ ] [ ]          |                             |  |
| _     | Marketing, Branding, Advended a Non Profit Government On Legal Services Telecommunications IT and Technology Education Other (please specify)  | rganization  en running for?  [ ]  [ ]  [ ]  [ ] |                             |  |
| _     | Marketing, Branding, Advended a Non Profit Government On Legal Services Telecommunications IT and Technology Education Other (please specify)  How long has the SME bed  Just started Below 6 months 6- 12 months 2- 5 years 6 years + | rganization  en running for?  [ ]  [ ]  [ ]  [ ] |                             |  |

| Lack of Resources<br>Lack of Branding   |                         |   | []                |                    |                   |
|---|-------------------------|---|-------------------|--------------------|-------------------|
| Other (please specify)  |                         |   | LJ                |                    |                   |
| 4. What type of financing me  | ethod does you          | ır organization                         | -                 | t?                 |                   |
| Venture Capitalist  |                         |   | []                |                    |                   |
| Equity  |                         |   |                   |                    |                   |
| Bank Loan   |                         |   |                   |                    |                   |
| Microfinance  |                         |   |                   |                    |                   |
| Family<br>Other (please specify)  |                         |   | []                |                    |                   |
|   |                         |   |                   |                    |                   |
| <ul><li>If you picked Microfinance in Ques</li><li>5. Please tick the answer tha</li></ul>  |                         |   |                   |                    |                   |
| Working Capital   | it suits the reas       | оп уой арргу і                          |                   | ioans              |                   |
| Working Capital and Fixed   | <b>Assets</b>           |   | []                |                    |                   |
| Working Capital, Fixed Ass  |                         | ructure                                 | []                |                    |                   |
| Other (please specify)  | ces and minase          | detale                                  |                   |                    |                   |
| Circi (predat apedity)  |                         |   |                   |                    |                   |
| <ul> <li>6. What is the size of the fund 1,000 GHc - 5000 GHc 6,000 GHc - 20,000 GHc 50,000 GHc - 100,000 GHc 150,000 GHc - 500,000 GHc - 500,000 GHc - 1,000,000 GHc - 2,000,000 GHc and above 7. How fast do you expect to institution?</li> <li>Less than 2 weeks</li> </ul> | . [<br>[<br>c [<br>Hc [ | ]<br>]<br>]<br>]<br>]<br>after you have | e applied for one | e from a micro     | ofinance          |
| Between 2 weeks and 1 mo<br>More than 1 month but les<br>6 months and more  | ss than 6 montl         | []                                      |                   |                    |                   |
| 8. How long does it usually t   | ake you to pay          | back the loan                           | ?                 |                    |                   |
|   | 1-4 weeks               | 2-6 months                              | 7-12 months       | 2 years-5<br>years | More than 5 years |
| Working Capital   | []                      | []                                      | []                | []                 | []                |
| Working Capital & Fixed Assets  | []                      | []                                      | []                | []                 | []                |

| Working Capital & Fixed Assets & Infrastructure | []                  | []              | []                             | []             | []      |
|---|---------------------|-----------------|--------------------------------|----------------|---------|
| Other   | []                  | []              | []                             | []             | []      |
| 9. Please tick the challenges b institutions?   | elow that bes       | t describe sour | cing funds from                | micro financin | g       |
| Lack of Transparency                            |                     |                 | []                             |                |         |
| High Interest Rates                             |                     |                 | []                             |                |         |
| Inflexible Repayment Metho                      | nds                 |                 | []                             |                |         |
| Unclear Procedures                              | <i>J</i> u <i>J</i> |                 | []                             |                |         |
| Other (please specify)                          |                     |                 | .,                             |                |         |
| 10. What is the reason for choice               | re in question      | 14?             |                                |                | ••••••  |
| Speedy access to funds                          | oo questio.         |                 | []                             |                |         |
| Little to no interest rates                     |                     |                 |                                |                |         |
| Flexible repayment period                       |                     |                 |                                |                |         |
| Other (please specify)                          |                     |                 |                                |                |         |
|   |                     | •••••           |                                |                |         |
| <b>11. Does IT and Technology pla</b> Yes No    | y a role in the     | daily operatio  | ns in your orgar<br>[ ]<br>[ ] | nization?      |         |
| 12. Does your organization use                  | or have consi       | idered using on | line payment sy                | stems for oper | ations? |
| Yes   |                     | •               | []                             | •              |         |
| No  |                     |                 | []                             |                |         |
| 13. Has your organization ever                  | used crowdfu        | ınding?         |                                |                |         |
| Yes   |                     |                 | []                             |                |         |
| No  |                     |                 | []                             |                |         |
| If yes continue, if no move to questic          | on 19               |                 |                                |                |         |
| 14. How did you hear about it?                  |                     |                 |                                |                |         |
| Through a friend                                |                     |                 | []                             |                |         |
| Online  |                     |                 | []                             |                |         |
| Newspaper                                       |                     |                 | []                             |                |         |
| Radio   |                     |                 | []                             |                |         |
| Other (please specify)                          |                     |                 |                                |                |         |
| 15. What funding model did yo                   |                     |                 |                                |                |         |
| Donations                                       |                     |                 |                                |                |         |
| Reward  |                     |                 | [ ]                            |                |         |
| Equity  |                     |                 | [ ]                            |                |         |

|         | Lending<br>Hybrid<br>Other (please specify)     | []    |    |
|---------|---|-------|----|
| 16.     | What did you like about it?                     |       |    |
|         | Speedy access to funds                          | []    |    |
|         | Little to no interest rates                     | []    |    |
|         | Flexible repayment period                       | []    |    |
|         | Other (please specify)                          |       |    |
| 17.     | What did you dislike about it?                  | ••••• |    |
| Dif     | ficult to use                                   | []    |    |
| Lon     | ng waiting period for funds                     | []    |    |
| Cha     | allenges when accessing funds                   | []    |    |
| Oth     | ner (please specify)                            |       |    |
| <br>18. | Would you use it again?                         | ••••• |    |
|         | Yes   | []    |    |
|         | No  | []    |    |
|         |   |       |    |
|         |   |       |    |
|         |   |       |    |
| 19.     | Do any of these funding models sound appealing? |       |    |
| Yes     |   |       | [] |
| No      |   |       | [] |
|         |   |       |    |

| Donations                                | Reward  | Equity  | Lending                                  | Hybrid              |
|--|---|---|--|---------------------|
| Funding is given without any obligations | Funding is given with<br>SME pledging to give a<br>gift in return | Funding is given with a stake in the business | Funding is given with low interest rates | A mix of all models |

In all cases SME pledges a deadline they think they can raise needed capital. If any excess cash is made before the deadline SME keeps it, if they don't, they pay a penalty fee and keep what they have or return whatever is raised back to funders.

| 1.    | How did you hear about crowdfunding?               |    |
|-------|--|----|
|       | Through a friend                                   | [] |
|       | Online   | [] |
|       | Newspaper  | [] |
|       | Radio  | [] |
|       | Other (please specify)                             |    |
| _     |  |    |
| 2.    | Did you seek other methods of funding before crowd | _  |
|       | Yes  |    |
| _     | No   | [] |
| 3.    | If Yes which one?                                  |    |
|       | Venture Capitalist                                 | [] |
|       | Equity   |    |
|       | Bank Loan  | [] |
|       | Microfinance                                       |    |
|       | Family   | [] |
|       | Other (please specify)                             |    |
| 4.    | If No, why?  |    |
|       | Had used it before                                 | [] |
|       | Just believed it would work                        | [] |
|       | Other financing methods did not seem appropriate   | [] |
|       | Other (please specify)                             |    |
|       |  |    |
| 5.    | What type of funding model did you pick?           |    |
|       | Donations  | [] |
|       | Reward   | [] |
|       | Equity   | [] |
|       | Lending  | [] |
|       | Hybrid   | [] |
|       | Other (please specify)                             |    |
| 6.    | Why did you pick that crowdfunding model?          |    |
|       |  |    |
| 7.    | What were the benefits of choosing crowdfunding?   |    |
|       | Speedy access to funds                             | [] |
|       | Little to no interest rates                        | [] |
|       | Flexible repayment period                          | [] |
|       | Other (please specify)                             |    |
|       |  |    |
| ••••• |  |    |

8. What were the disadvantages of choosing crowdfunding?

| Difficult to use                      |                  | [] |  |
|---------------------------------------|------------------|----|--|
| Long waiting period for funds         |                  | [] |  |
| Challenges when accessing funds       |                  | [] |  |
| Other (please specify)                |                  |    |  |
|                                       |                  |    |  |
| 9. How long did it take for you to re | eceive the fund? |    |  |
| Less than 2 weeks                     | []               |    |  |
| Between 2 weeks and 1 month           | []               |    |  |
| More than 1 month but less than 6 mc  | onths [ ]        |    |  |
| 6 months and more                     | []               |    |  |
| 10. What was the size of the fund?    |                  |    |  |
| 1,000 GHc - 5000 GHc                  | []               |    |  |
| 6,000 GHc - 20,000 GHc                | []               |    |  |
| 50,000 GHc- 100,000 GHc               | []               |    |  |
| 150,000 GHc - 500,000 GHc             | []               |    |  |
| 600,000 GHc- 1,000,000 GHc            | []               |    |  |
| 2,000,000 GHc+                        | []               |    |  |
| 11. What tools did you have to use t  | o obtain the fun | d? |  |
| Power Point Presentation              |                  | [] |  |
| Videos                                |                  | [] |  |
| Business Plan                         |                  | [] |  |
| Projections                           |                  | [] |  |
| Proof of credibility                  |                  | [] |  |
| Bank Account Details                  |                  | [] |  |
|                                       |                  |    |  |