ASHESI UNIVERSITY COLLEGE

PUBLIC CONFIDENCE IN MICROFINANCE INSTITUTIONS AND DEMAND

FOR MICROFINANCE SERVICES IN GHANA

BY:

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DECLARATION

I hereby declare that this thesis is my original work and that no part of it has been

presented for another degree in this university or elsewhere.

Candidate's Signature: _____

Candidate's Name: <u>Millicent Bola</u>

Date: ____/____/_____

I hereby declare that the preparation and presentation of this thesis was supervised in

accordance with the guidelines on supervision of undergraduate theses established by

Ashesi University College.

Supervisor's Signature: _____

Supervisor's Name: <u>Mr. Anthony Essel-Anderson</u>

Date: _____/_____/_____

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Abstract

This study aims at analyzing the level of confidence in microfinance institutions in the Greater Accra region, Ghana using a financial services confidence index questionnaire adapted from the Central Bank of Tukey. The study adds to already existing literature on microfinance. The survey approach was used to gather data through convenience sampling. Logistic regression was also used to find the relationship between the demand for microfinance services and confidence in microfinance services while and t-test differences in means was used to find the mean confidence differences among categories in the study sample. The decision to patronize microfinance service is used interchangeably with demand for and use of microfinance services in this study.

It was found that respondents of the study are optimistic about the microfinance sector of Ghana. There is, however, no difference between the confidence index of men and women but women demand microfinance services more than men. A positive relationship was established between the level of confidence in microfinance institutions and demand for microfinance services. It was also found that customer satisfaction and a person's level of education affects how much confidence he/she has in the microfinance sector of Ghana.

It is recommended that microfinance operators should take measures to improve the level of confidence in the sector and increase the demand for their services. Also, customer satisfaction should be a priority of management of microfinance institutions in the quest to improve confidence in the sector.

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CHAPTER ONE - INTRODUCTION

1.1 Background to the Study

Microfinance started in Ghana in the form of self-help where individuals saved with and borrowed small loans from each other (Asiama & Osei, 2007. The PNDC Law 328 of 1991 was however enacted to formalize the establishment of nonbanking financial institutions such as savings and loans companies, credit unions and others. Based on the PNDC Law 328, as amended in 1993, no institution shall carry out non-banking financial activities without being incorporated in the country, having met the minimum capital requirements and granted a license to operate by the Bank of Ghana after successfully going through the licensing application process.

As at 31 July 2016, there were about 429 licensed microfinance companies and 31 licensed savings and loans companies as at January of the same year according to the Bank of Ghana (2016).

Microfinance as a developmental tool is essential to the growth of the Ghanaian economy through the provision of financial services for the "productive poor" in the informal sector who cannot access credit facilities to grow and develop the sector (Asiama & Osei, 2007). In addition, Asiama and Osei (2007) mentioned that microfinance institutions mop up excess liquidity in the economy through savings which add to investment capital for national development. According to the Financial Inclusion Insight (FII) survey of 2015 conducted by the Consultative Group to Assist the Poor (CGAP), about 48% of Ghanaian adults aged 15+ are financially included. Implying, 52% are financially excluded (*Appendix Figure 1)*. To be financially included mean either having a bank account, mobile money account or an account with a non-banking

financial institution. Thus, there is still a wider portion of Ghanaians without access to financial services and an effective and efficient microfinance industry characterized by high public confidence can mitigate this problem.

Recently, the microfinance sector is faced with some challenges such as compliance with regulatory requirements by the Bank of Ghana (Antwi, 2015) and the lack of due diligence and imprudent practices on the part of management (Boateng *et al.,* 2016). These and other challenges have caused the closure of several microfinance institutions. In 2013, thirty microfinance institutions collapsed because they could not sustain their operations (Obour, 2013) while seventy had their licenses revoked in 2015 for not complying with Bank of Ghana regulations (Otoo, 2015). In total, about a hundred microfinance companies in the country have collapsed between the years 2013 and 2015 causing losses to several customers.

In a research conducted by Baku (2015) to assess the impact of collapsed microfinance institutions on customers, it was found that 230 out of 350 customers who suffered losses due to collapsed microfinance institutions are discouraged from saving.

Amidst the above challenges, how much faith do people still have in microfinance institutions? Thus, how much confidence does the public have in these institutions to patronize their products and services? For microfinance institutions to effectively serve as a "developmental tool" (Ledgerwood, 1999), it is important to know if people can trust these institutions to deliver up to expectations. News items on the media such as

Microfinance Stakeholders Urged to Rebuild Public Confidence (Segbefia, 2016) and the like add to the need to know how much confidence people have in these microfinance companies.

<div align="center">1.2 Research Problem</div>

Previous studies on microfinance in Ghana have little information on public confidence in microfinance institutions. Authors like Antwi (2015) and Boateng *et al.* (2016) conducted research on the causes and effects of collapsed microfinance institutions while Baku (2015) researched on the impact of collapsed microfinance institutions on customers. Tawiah *et al.* (2013) and Ferka (2011) also studied the impact of microfinance on small and medium scale enterprises and the livelihood of women in rural communities respectively. In other studies, Boateng (2015) examined the challenges and prospects of microfinance institutions and Kuffour *et al.* (2013) addressed the challenges faced by mobile bankers of microfinance institutions. All these papers and others on microfinance in Ghana say little or nothing at all about how much confidence people have in microfinance institution. As such, this research seeks to fill the literature gap of public confidence in microfinance institutions in the country.

Apart from filling the gap in the literature, it fills a methodological gap. The Business Confidence Survey by the Institute of Economic Affairs (IEA) is used to measure the confidence in both the financial and non-financial sectors of Ghana with respect to the business environment. The United Kingdom, Turkey, South Africa, and a few other countries, however, conduct separate surveys to assess the level of confidence

in their financial institutions (microfinance institutions included). The surveys are

conducted to assess managers' appraisal of the financial sector based on past experiences

and future expectations. PricewaterhouseCoopers conducts the financial services survey

in the United Kingdom where the managers of banking institutions, insurance, and

investment managers in the industry are surveyed quarterly. The managers' expectations

on optimism, business volumes, employment changes, profitability and changes in capital

expenditure.

South Africa's financial services survey is also done in a similar way by the

Bureau for Economic Research every quarter of the year. Here, managers of retail banks,

investment banks, asset managers and life insurers are surveyed. The survey seeks to

reveal current and expected changes in incomes, expenses, demand, and profitability

(Kershoff, 2008). Turkey's financial services survey on the other hand, is conducted by

the statistical department of the country's Central Bank. Monthly and quarterly surveys

are filled by managers of banks, insurance, leasing, factoring and financing companies on

their assessment and expectations on business situation, demand for services and

employment. From the questions of the financial services survey, the Financial Services

Confidence Index is estimated to measure the level of confidence in the financial

institutions.

In each country's case, managers responded to survey questionnaires which means

the confidence in financial institutions is understood from managers' perspective. How

different would it be if those who consume the services of these financial institutions are

used as respondents to the survey questionnaire? This creates the opportunity for the use of an economic concept that recognizes the effect of consumer confidence on consumption to conduct a similar research to find the level of confidence in financial institutions (microfinance institutions in the case of this research).

In addition, Owens (2011) in studying the financial services survey of America found that the overall confidence level in the financial sector could be influenced by a high confidence in a subsector. Thus, this study seeks to find the level of confidence in only microfinance institutions as a subsector of the financial industry of Ghana.

1.3 Research Objectives

The purpose of this research is to;

1. Determine the level of confidence in microfinance institutions.

2. Identify the relationship between demand for microfinance services and the level of confidence in microfinance institutions.

3. Find if there is difference in the mean confidence level among gender groups and other categorical independent variables from the data gathered.

1.4 Research Questions

The research seeks to find answers to the following questions.

1. What is the level of public confidence in microfinance institutions in Ghana?

2. Is there a significant relationship between of the level confidence and demand for microfinance services?

3.   Does the level of confidence differ for gender groups, usage of MF services and

satisfaction from MF services?

1.5 Significance of Study

This research will add to already existing literature on microfinance institutions in

Ghana. As the first of its kind, the findings will serve as a basis for comparison for future

research to determine whether confidence in microfinance institutions has improved or

deteriorated. Also, this research gives the public the opportunity to express their

sentiments on microfinance operations in the country while contributing to evaluating the

level of confidence in the sector through participation in the research survey.

Discovering the relationship between confidence in microfinance institutions and

demand for microfinance services would help microfinance operators to know the

significance of consumer confidence in the services that they render. It would also help

take necessary measures to increase the level of confidence if a significant positive

relationship is discovered. Otherwise, management of microfinance institutions can focus

only on other areas to increase the demand for their services. Thus, the findings from this

study could guide strategic decisions in the microfinance sector of Ghana.

1.6 Conceptual Framework

The conceptual framework for the study is deduced as shown in *Figure 2* on the

next page. It illustrates the relationship of confidence in microfinance institutions, the

level of education and gender on demand for microfinance services. The hypotheses tested in the research is informed by this relationship.
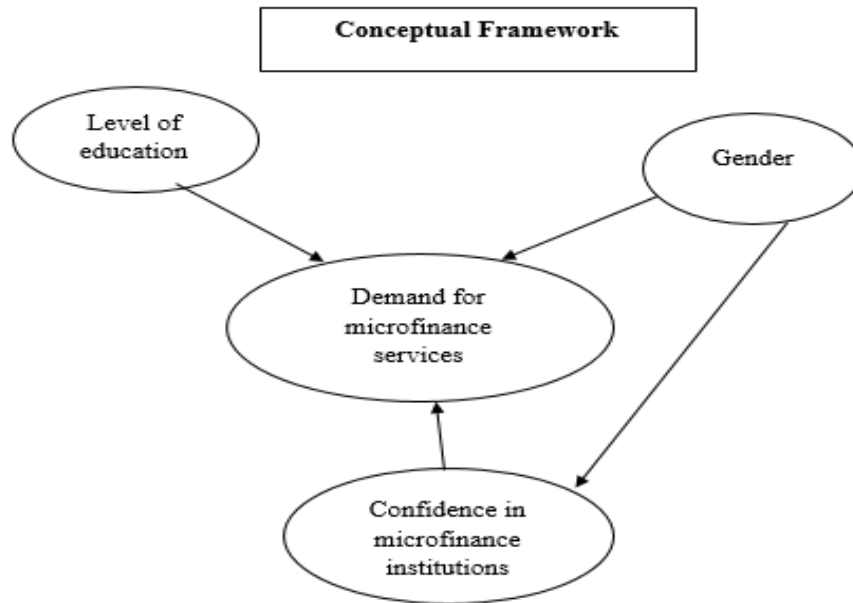
Figure 2: Conceptual Framework for study

Source: Researcher's deductions

The conceptual framework above shows that individuals' level of education has an influence on their demand for microfinance services, likewise gender and the level of confidence they have in the microfinance institutions. The framework also illustrates a relationship between gender and a person's level of confidence in microfinance institutions.

The concept of consumer confidence (described in detail in the next chapter) stipulates a relationship between demand for services and consumer confidence (Mosch and Prast, 2008). Heim (2011) discovered a positive relationship between consumer

confidence and demand for goods and services. Fisher (2010); Floro and Seguino (2002); Sereetrakul, Wongveeravuti and Likitapiwat, (2013); Nallari and Griffith (2011) also found that gender influenced saving decisions, thus the demand for financial services. Gender again is found to have some influence on the level of confidence people have in one another or objects by Chaudhuri and Gangadharan (2003); Dittrich (2015). This called for the link between gender and the level of confidence in microfinance institutions in the conceptual framework. The level of education of individuals, on the other hand, is also found to have an influence on the demand for financial services according to Boakye and Amankwah (2012).

The above paragraph explains the reason for the choice of variables in the conceptual framework.

1.7 Scope of Study

The research is undertaken in the Greater Accra region for purposes of convenience, time and cost. The main objective of this research is to ascertain the level of confidence in microfinance institutions. This research is aimed at determining the level of confidence in **only** microfinance institutions and **not all** financial institutions in the country. The research focuses on microfinance institutions such as credit unions, Susu collectors, savings and loans companies excluding non-financial governmental organizations and rural and community banks.

1.8 Outline of Undergraduate Thesis Report

This research report is in five chapters. The first chapter gives a background of the study highlighting on microfinance operations in Ghana, the need to have a confidence measure for the microfinance industry and the conceptual framework of the study. Chapter two contains the review of relevant literary works on the topic and various financial service confidence surveys while chapter three discusses the methodology used in carrying out the research as well as the data analysis techniques. Chapter four contains the analysis of the data gathered and interpretation of research results obtained. Chapter five being the last chapter elaborates the conclusions of the research findings and presents recommendations.

CHAPTER TWO - LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature on theories and concepts used in the study, impact of microfinance on the Ghanaian economy and confidence measures for financial institutions.

2.2 Conceptual and Theoretical Literature

2.2.1 Consumer Confidence

Consumer confidence is a psychological concept developed by George Katona, a psychologist in his attempt to find how consumer psychology can be incorporated into economic models (Mateljic, 2012). Consumer confidence in economic theory measures the strength of an economy depending on the perceptions expressed by members of that economy based on available information and past experiences (Ludvigson, 2004). It is determined by asking questions on the present situation and the near future expectations of an economy.

A high confidence according to Mosch and Prast (2008), represents optimism about the future which leads to an increase in spending and vice versa. Thus, the level of consumer confidence influences spending attitudes. The level of spending in an economy reflects the level of consumption and hence the demand for goods and services. Similarly, an indication of high confidence in microfinance institutions would be useful in anticipating demand for microfinance services. This speculation is tested in the course

of the study to arrive at a valid conclusion that high confidence in microfinance institutions lead to high demand for microfinance services.

2.2.2 Rational Consumer Behavior Theory

The theory of rational consumer behavior also applies to this study. In economic theory, man is a maximizer and would always go for the best option given available information. According to Mankiw (2006), rational people "systematically and purposefully do the best that they can to achieve their objectives". Herriges (2010) further explains that the rational consumer theory assumes that there are alternatives available to the consumer and the rational consumer chooses the option that would maximize the satisfaction he/she seeks for.

Relating the above to the Ghanaian public which includes current or potential customers of the services of microfinance institutions, it is expected that an increase in demand for services would result from positive confidence in microfinance institutions. This is because no rational person would expect to invest his/her money in a financial service without hope that the financial institution will operate for a foreseeable future taking into consideration its operational performance.

Therefore, it is expected based on the rational consumer theory also that, a positive relationship exists between the level of confidence in microfinance institutions and the demand for services.

2.3 Empirical Literature

Empirical literature suggests that the level of consumer confidence in an economy influences the level of consumption in that economy as illustrated above in the conceptual and theoretical literature. Previous studies on the subject confirm this relationship between consumer confidence and consumption. Lahiri, Monokroussis and Zhao (2012) in testing the role of consumer confidence in forecasting consumption among US citizens concluded that consumer confidence is a measure of consumer expenditure and has a positive influence in forecasting consumption expenditure. The authors were able to arrive at this conclusion by reexamining existing models of consumption and consumer confidence like the *univariate approach* and the model with *additional variables*. The univariate approach is where consumer confidence is considered as the only predictor of consumption whereas other variables such as T-bill rate, social insurance contributions among others are included in the additional variables model.

In reexamining these models, the authors used monthly averages for consumer confidence and consumption as well as real-time data as opposed to quarterly and revised data that was originally used in these models. However, the findings of Lahiri, Monokroussis and Zhao (2012) was not different from that of previous authors like Bram and Ludvigson (1997) and Ludvigson (2004) who used the univariate and additional variables approaches.

Similarly, Heim (2010) in his paper, *The Impact of Consumer Confidence on Consumption and Investment Spending* conducted a regression analysis on US consumption and consumer confidence index using data from 1960 to 2000. He also found a positive relationship between consumer confidence and consumption/demand. A weakness in this paper may be the fact that the author's data set is not recent and this might have affected his findings.

Likewise, a regression analysis would be conducted in this research to test the relationship between the level of confidence and demand for microfinance services.

2.4 The Impact of Microfinance

2.4.1 Positive Impact of Microfinance

Microfinance operations in Ghana have contributed in various forms to impact the lives of individuals and sub-sectors of the economy. Ferka (2011) in his study on the impact of microfinance on the livelihoods of rural women of the Jaman South district of the Ashanti region found that rural women achieved economic independence as they developed the habit of saving through microfinance products. Also, access to credit facilities through microfinance led to an increase in sales turnover, fixed assets and profits of women who are mostly traders.

Also, Nanor (2008) conducted a study to evaluate the impact of microfinance initiatives in selected districts in the eastern region. His findings were a positive relationship between microfinance and child education expenditure, household income

and profit levels for some districts while a negative relationship was found in some cases. These mixed findings made it impossible to conclude that microfinance has a significant positive impact on poverty alleviation. It may be difficult to point out a reason for the mixed results. However, it could be that there are other inherent factors that might have accounted for the negative impact in some of the districts.

As microfinance seek to provide credit services for small scale traders who are usually low-income earners, Tawiah *et al* (2013) discovered that microfinance has positively affected the growth of Small and Medium Scale Enterprises (SME) in Kumasi. Most of the respondents in his study said the microfinance initiatives have improved their saving habits, provided better access to loan facilities, and provided business, financial and managerial training to them.

The author also finds that some of the traders who sought for funding from microfinance institutions misapplied these funds. Therefore, although funds are made available by the microfinance institutions, it is dependent on the individual traders to make proper use of these funds to reap the expected benefits.

It is important to note that the magnitude of positive impact that microfinance operations may have on beneficiaries is however, dependent on other factors. One of such factors is how individuals make use of the services of microfinance initiatives.

2.4.2 Negative Impact of Microfinance

Aside from the above mentioned positive impacts of microfinance in the country, there are some negative impacts in the event of a collapse or license revocation of these institutions. Baku (2015) assesses the impact of collapse microfinance institutions in the Kumasi metropolis focusing on affected customers through questionnaire administration. He finds that the level of impact is dependent on the amount of capital lost by each customer.

Baku (2015) administered 350 questionnaires to affected customers of collapsed microfinance institutions. Out of the total respondents, it was found that most of them agree that the collapse of microfinance institutions has led to the loss of finance for educational plans and affected their financial obligation as family heads. The collapse of businesses, discouragement from saving, loss of capital and problems with paying creditors are some other effects that most customers agreed the collapse of microfinance companies have had on them. Most the respondents, however, disagreed that the collapse of microfinance institutions has created mistrust between them and their friends.

Although the author's research topic was to investigate the impact of the collapsed microfinance institutions on customers, it would have been interesting for him to take note of the causes of the collapsed microfinance institutions that affected the customers under study as well. The author failed to give the basis on which he chose the possible effects of collapsed institutions on customers. There may be other effects that customers suffered from but have not been included in his questionnaire.

Hafisdeen (2015) also found that the collapse of some microfinance institutions has had a negative impact on the growth and development of existing microfinance institutions. This is because prospective customers reduce their savings with the existing microfinance institutions and frequent withdrawals occur because they feel unsafe to have huge deposits in their accounts.

2.5 Importance of Confidence in Financial Institutions

Springford *et al* (2011) addressed what trust in financial institutions mean and why it matters in financial markets among other issues in the book, *A Confidence Crisis? Restoring Trust in Financial Services*.

The authors defined trust as "reliance on an agent to act on one's interest" and used trust to signify confidence in their work. Siegrist, Earle, and Gutscher (2003) however tried to differentiate between trust and confidence. Siegrist *et al* (2003) define trust as "the willingness to make oneself vulnerable to another based on a judgment of similarity of intentions or values" and confidence as a "belief based on experience or evidence that future events will occur as expected". Thus, they concluded that "trust is based on social relations, whereas confidence is based on familiarity".

Springford *et al* (2011) argued that trust is said to be important in financial service delivery because unlike other transactions where consumers can objectively evaluate the product purchased and make the best choice by easily switching to the producer who offers the best product, consumers of financial services enter ongoing

relationships with their agents. When consumers buy a financial product, they are

contracting a service for the future with the expectation that the agent (that is the

financial institution that offers the product) would safeguard and increase the value of

their deposits. Secondly, consumers are buying the expertise of the service provider who

serves as the agent but cannot tell if they are getting a fair deal from the agent. Therefore,

the consumer needs to believe that the agent tells the truth and will act in their interest,

making trust essential to effective financial market operations.

<div align="center">2.6 Surveys to Test Confidence in Financial Institutions</div>

<div align="center">*2.6.1 The Business Tendency Survey*</div>

The Business Tendency Survey technique is applied to test for confidence in the

financial sector of South Africa, Kershoff (2008). The Bureau for Economic Research

conducts the confidence survey in South Africa with support from Ernst & Young since

2002.

In conducting the survey, divisional heads from retail banks, investment banks,

investment management firms, life insurance, and short-term insurance firms are

surveyed. For purposes of a clear evaluation of the trend in the results of the survey

which is conducted quarterly, a fixed panel of respondents is used with new respondents

added at intervals. A fixed panel here means the respondents of the first survey are used

for all other subsequent ones. Respondents to survey questions are expected to answer

questions on credit standards, demand for products, expected changes in income

expenses and profitability by stating whether a variable in question has gone up, down or remained the same compared to the same quarter a year ago.

A weakness identified in reviewing this technique is data inaccuracy. The previous responses of participating firms that failed to respond in the current quarter are reused in the event of non-response from these participants in the current quarter but given a half weight. The problem is that giving the previous responses a half weight would not necessarily reflect the current quarter, thus may hinder the validity of the survey results. Also, it may not be convenient as respondents may have to go through records of last year to be able to know the changes that took place. This may discourage some of the respondents and could be a reason for the low responses that the author gave as a challenge in carrying out the survey.

2.6.2. The General Social Survey and Harris Survey

In examining trends in the confidence in commercial banks, local banks, savings and loans associations, and the Wall Street from 1971 to 2011, Owens (2011) analyzed results from the General Social and Harris financial confidence surveys.

He found that Americans have high confidence in banks that they personally deal with than commercial banks in general in the country. He also found that the overall confidence in financial institutions may be affected because Americans have high positive or negative confidence in commercial banks as opposed to other financial institutions. Thus, the level of confidence in the financial sector as a whole may be

heavily influenced by a single sector's high positive or negative confidence index. This is

one of the reasons why this paper seeks to determine the level of confidence in

microfinance institutions as a sub-sector of the financial sector of Ghana without relying

on the overall confidence in the financial sector to draw conclusions.

2.6.3 The Financial Services Confidence Index

The Central Bank of the Republic of Turkey conducts financial service surveys to

show the tendencies and developments in the financial sector of the country. This is done

by taking assessments and expectations of managers of financial institutions about the

past and future business conditions. The paper *Methodological Information on Financial*

Services Survey and Financial Services Confidence Index from the statistical department

of the Central Bank of Turkey elaborate on the methodology used to arrive at the

financial services confidence index. In the paper, it is stated that subsectors of the

financial sector of Turkey are surveyed and the results from the survey are used to

compute the confidence index of the financial sector.

Although the process is involving, the entire process helps eliminate the problem

of the confidence index being grossly affected by the level of confidence in one sub-

sector since weighted averages are applied.

However, the weight of each subsector of the financial sector needs to be known since

the overall confidence in the sector is the sum of the weighted averages of the individual

subsectors. Thus, the difficulty in obtaining the weight of each subsector may pose a

challenge to this method. The act of surveying managers instead of consumers of the

financial services will not fit for the purposes of this study where the concept of consumer confidence is employed.

2.7 Conclusion

Microfinance institutions have had positive impacts on the lives of its beneficiaries in the form of economic empowerment of women, increase sales turnover and assets of SMEs among others. Some supposed beneficiaries have also suffered loss of savings in cases of collapsed microfinance institutions. The empirical literature also shows that consumer confidence has a positive relationship with demand.

The various financial service confidence surveys reviewed also revealed that the level of confidence in the financial sector may be misleading for subsectors of the industry. This gave reason to study the individual financial subsectors to determine the level of confidence people hold in these institutions as this research focuses on determining the level of confidence in microfinance institutions.

Furthermore, confidence in financial institutions is found to be important because these institutions serve as agents to their customers who need to trust them before patronizing their services. In addition, banking is not a one-time transaction and so customers need to be confident enough to entrust their money with the financial institutions that they choose to do business with.

CHAPTER THREE - METHODOLOGY

3.1 Research Design and Data Sources

This research uses both exploratory and explanatory research approaches. Exploratory research because there is little literature on the level of confidence in microfinance institutions from previous studies and explanatory as the research seeks to find the relationship between some variables in the study. Quantitative research analysis methods are employed. Primary data was collected through the survey approach by administering questionnaire while secondary data on the population size of the Greater Accra region and the financial inclusion data of Ghana is obtained from the Ghana Statistical Services and the Consultative Group to Assist the Poor (CGAP) respectively.

3.2. Sampling Strategy

The population from which the sample was drawn is adults in Ghana who are 18 years and above and are in the right state of mind to provide answers to the research questions excluding the very aged (80 years and above). The sample area is the Greater Accra region and a sample size of 385 was estimated to be used based on the convenience sampling strategy. A total of 243 responses were however gathered at the end of data collection because of time and language constraints. The convenience sampling was used for the questionnaire administration to enhance ease of reaching out to respondents.

3.3 Data Collection

The survey approach was used for data collection through questionnaire administration. The questionnaire is adapted from the Turkey Financial Services Confidence Index Survey where an index is calculated from a set of responses to three questions; one question on past performance, another on past demand and the last on expected demand. In this research, a fourth question on expected performance in the future is included. The introduction of a fourth question means that the composition of each question in the confidence index would be less.

In addition, the questionnaire is modified to increase the number of response options for a question from three to five. The design of Turkey's financial services confidence index questionnaire is in the Likert scale format with only three options. Preston and Colman (2000) among other studies on the optimum number of response options for the Likert scale type questionnaire found that four or fewer options scale perform poorly on results reliability and validity. For this reason, the number of options on the survey questionnaire is increased to five. The Likert scale questionnaire type is used because it is a good measure of attitudes (Bertram, 2007) and easy to read and complete by respondents. However, there is the possibility of respondents not being honest in their responses as they want to please the researcher or either portray themselves as "good" (Bertram, 2007). The data for this research was collected over the period of January to March 2017 covering the geographical areas of Madina, Accra Central, Tema, Nungua, Dansoman, and Kwabenya all of the Greater Accra region.

As the research seeks to find the level of confidence Ghanaians within the study area (Accra) have in microfinance institutions, the confidence index questionnaire would be administered to the public. Hence, the confidence index is calculated to represent how much confidence the public have in microfinance institutions in correspondence with the conceptual framework of consumer confidence where the responses of citizens in the economy are used to estimate the consumer confidence index.

3.4 Data Analysis

Data gathered is analyzed using quantitative methods. The data collected is coded in Excel for easy analysis and descriptive statistics drawn from the responses to analyze the sample characteristics. The Financial Services Confidence Index is then calculated from the first four questions of the questionnaire to determine the level of consumer confidence.

3.4.1 The Financial Service Confidence Index

The confidence index is calculated using the following steps:

I. Calculate the percentage of positive and negative responses for each of the questions.

II. The balance (this is the difference between the positive and negative response percentages) of each question is calculated and summed. An average of the summed balances is obtained by dividing the number of questions, 100 points are then added to obtain the confidence index.

Mathematically, Confidence index = (sum (% of positive responses *(i)* - % of negative response *(i)*) */n*) + *100*, where *i* = Question number and *n* = total number of questions.

The index is interpreted to show whether the public is optimistic, pessimistic, or neutral about the outlook of microfinance institutions. An index equal to 100 points means a stable outlook of the financial services sector, a less than 100 points mean a pessimistic outlook and a greater than 100 points means an optimistic outlook.

3.4.2 Binary Logistic Regression

To determine the relationship between demand for microfinance services and confidence in microfinance services, a binary multiple logistic regression is used. Logistic regression is most appropriate for testing hypotheses about the relationship between a categorical dependent variable and one or more categorical or continuous independent variables (Peng, Lee & Ingersoll, 2002; Agresti, 2002). A logistic regression is preferred because the assumptions of normal distribution of the data and linearity are not required (Lee, 2005; Peng, Lee, & Ingersoll, 2002). It only assumes that the observations are independent which is true about the data gathered since the demand for microfinance services by one respondent is independent of the other. Multiple logistic regression is used to be able to control other factors that may have an influence on the dependent variable (demand). The general multiple logistic regression model is given as;

logit $[p(Y = 1)] = \alpha + \beta_1 X_i + \beta_2 X_i + \ldots + \beta_n X_n$, where n is the number of predictor (independent) variables, $p(y = 1)$ is the probability of the dependent variable occurring, α

is the intercept, X_i is the independent variables (i = 1, 2, 3,…..n) and β is the slope coefficient of the independent variables.

3.4.2.1 Specified Logistic Regression Model

For the purposes of this research, the specific logistic regression model for this study is represented in the below equation.

$$\text{Logit } [p(\text{Demand} = 1)] = \alpha + \beta_1 \, Confidence \, Index_i + \beta_2 \, Gender_i +$$

$$\beta_3 \, Education \, Level_i,$$

The conceptual framework in Chapter 1 of this report is used in determining the dependent and independent variables. The decision of patronizing microfinance services representing demand is the dependent variable with binary categorical responses as *Yes* and *No* coded in dummy variables. The independent variables are the confidence index of individual respondents, gender and the level of education of respondents. Reasons for all independent variables included in the model are explained in the conceptual framework of the research in Chapter 1 subsection 1.6 of this report.

Gender and the level of education are both categorical independent variables coded in dummy variables as *male* = 0, *female* = 1 and *senior high school and below* = 1, *tertiary* = 0 for gender and education levels respectively. The confidence level of respondents is the only continuous independent variable in the model. The regression is performed using the SPSS data analysis software.

The hypothesis tested using the logistic regression is give as;

H0: There is no significant relationship between the level of confidence in microfinance institutions and demand for microfinance services.

H0 is the null hypothesis and the alternate is the opposite of it. The null hypothesis is rejected at a 5% significance level if the p-value of the coefficient of confidence (β_1) is less than 0.05. A p-value greater than 0.05 however, indicates a failure to reject the null hypothesis.

3.4.3 T-test of Difference in Means

In addition to using the logistic regression, the independent t-test is performed to test for differences in means of various categories or groups within the sample studied using the SPSS statistical tool. The dependent variable is the level of confidence in microfinance institutions while the categorical independent variables are gender, usage of microfinance services and the satisfaction from the use of microfinance services (this is done for only respondents who have ever used/demanded microfinance services). The categories of gender are *male* and *female,* usage takes the categories of *yes* and *no* while satisfaction is also categorized as *yes* and *no.* Thus, the mean confidence levels of the various categories of the independent variables are compared. Three separate t-test hypotheses are tested.

H0: $\mu_1 = \mu_2$

H1: $\mu_1 \neq \mu_2$, where H0 is the null hypothesis and H1 is the alternate hypothesis.

μ_1 is the mean of males and μ_2 is the mean of females. This is the first t-test

conducted and rejecting the null hypothesis would mean that there is a significant

difference in the means of male and female respondents in terms of their level of

confidence in microfinance institutions.

In the second hypothesis testing, μ_1 is the mean confidence of respondents who

have ever used microfinance services and μ_2 is the means confidence of respondents who

have never used microfinance services. The null hypothesis here means that the mean

confidence of respondents who have ever used microfinance services is the same as those

who have never used microfinance services. This implies a respondent's level of

confidence in microfinance institutions is not influenced by usage of microfinance

services.

The last t-test hypothesis evaluates the null hypothesis that the mean confidence

of respondents satisfied with the microfinance services that they used (μ_1) equals the

mean confidence of respondents who were not satisfied with the microfinance services

that they used.

The null hypothesis is rejected for each t-test when the p-value is greater than

0.05 significance level and it fails to be rejected when the p-value is less than 0.05.

3.5 Validation of Adapted Questionnaire

This research is used for academic purposes and for that reason, the method adapted from the statistical services of the Turkey Central Bank needs to be validated. However, there has not been a validation examination of the method. Therefore, a validity test would be conducted to assess its usefulness in the field of academic studies and verify that the questionnaire adapted would give reliable results since there cannot be validity without reliability (Weiner, 2007).

In the words of Carmines and Zeller (1979) "one validates not the measuring instrument itself but the measuring instrument in relation to the purpose for which it is being used". For this reason, a validity test would be conducted for the confidence measure adapted from the Central Bank of Turkey in this study in relation to the level of confidence that would be measured.

Carmines and Zeller identified three main types of validity, criterion related validity, construct validity and content validity. They concluded that both content and criterion validity tests were not useful where an abstract concept is being validated except construct validity. This is because criterion related validity involves finding the correlation between the results obtained from the measure and the concept by giving a criterion against which the concept is measured. However, abstract concepts do not usually have appropriate criterion variables to correlate with. Hence, the test of criterion related validity cannot be conducted for this research.

Content validity, on the other hand, involves examining the extent to which an empirical measurement reflects a specific domain of action. In simple terms and in the context of this research, content validity requires examining the questionnaire adapted to see if it contains every variable that explains what confidence is. Thus, content validity relies on how much information the questionnaire contains to explain confidence. Cronbach and Meehl (1955) admits it is a good thing to make sure a measure contains enough content to measure the variable under study but still caution that this is difficult in the case of an abstract phenomenon. Moreover, there is no criteria to determine the extent to which a measure has attained content validity.

The last test of validity is construct validity which Carmines and Zeller (1979) consider appropriate for abstract theoretical concepts. Construct validity according to DeVellis, (1991) "is the extent to which a measure behaves the way that the construct it purports to measure should behave with regards to established measures of other constructs". This is determined by finding the correlation between the results from the adapted method and the measure of the construct. This means that the confidence index calculated using the adapted questionnaire must truly reflect the level of confidence in microfinance institutions. To confirm this, the correlation between the confidence index and demand as a measure of confidence is determined. Per the conceptual literature of this research where high confidence results in high demand in an economy (Mosch and Prast, 2008), the demand for microfinance services is considered as the measure of confidence.

With a significant positive correlation with a p-value less than 5% between the calculated confidence indices and demand for microfinance services is an indication that the questionnaire adapted has construct validity (Carmines & Zeller, 1979) and for that matter, an appropriate measure for academic purposes. Additionally, the correlation coefficient of demand and confidence level helps to explain the amount of variability in demand for microfinance services that can be explained by the financial services confidence index.

CHAPTER 4 – DATA ANALYSIS

4.1 Introduction

This chapter of the report seeks to analyze the data gathered from the administered questionnaire in the Greater Accra region. The data was inputted into and analyzed using Microsoft Excel and SPSS. The validity of the confidence index questionnaire as a measure of confidence is first tested. Descriptive and inferential are drawn from the data gathered. The confidence index for microfinance institutions is then computed and the relationship between demand and the level of confidence is tested. The last part of this chapter is the t-test of differences in means.

4.2 Validity Testing of Adapted Questionnaire

Given that the adapted questionnaire to measure confidence in microfinance institutions has not been used for academic research before called for the need to test its validity. The correlation between demand for microfinance services and confidence is calculated as well as a simple linear regression analysis.

4.2.1 Correlation Output and Analysis

Table 1 below contains the Pearson, Spearman, and Kendall correlation coefficients with their respective p-values as computed using the *Excel Real Statistics* tool.

Table 1: Correlation coefficient test output

	Correlation coefficient	P-value
Pearson	0.477029156	3.26576E-15
Spearman	0.482934726	1.32839E-15
Kendall	0.42788368	5.79536E-14

Source: Researcher's computations

In all three correlations, Pearson, Spearman, and Kendall coefficients are positive indicating a positive relationship between demand and confidence and are significant with p-values less than 0.05. From the correlation coefficients, it can be deduced that the financial services confidence index measures between 45 to 50 percent of the variability in the demand for microfinance services. Construct validity is therefore said to be ascertained between the measure of confidence in microfinance institutions, being the financial services confidence index questionnaire and demand for microfinance services.

It is however advised that researchers who may want to adapt the same questionnaire for future studies should perform other validity tests aside construct validity.

4.3 Descriptive Analysis

From the data gathered, the study covered only 243 against an estimate of 358 respondents due to time and language limitations although the initial intention was to obtain 358 responses or more. 105 of these respondents were males representing about 43% of the sample surveyed and 138 females representing the remaining 57%. Out of the total respondents, 170 currently use or have ever used microfinance services, 127 of this number were satisfied with the services offered by their respective microfinance firms while 43 were not satisfied. Also, of the 170 respondents who use or have ever used microfinance services, 89 of them have ever had a bitter experience (this includes but not limited to losing money to a microfinance company, bad attitudes of mobile bankers etc.)

and 81 (a slightly lesser number) have never. Most of the respondent, about 77% have

not attained tertiary education whereas 23% have attained tertiary education. Tertiary

education is used in this context to include training colleges, universities, and

polytechnics.

Additionally, 130 of the total respondents surveyed indicated they would

patronize microfinance services in the future (within a period of six months). More

females (74 respondents) indicated they would demand microfinance services than males

(56 respondents). This may be attributed to the fact that women have the incentive to

save more than men as speculated by Nallari and Griffith, 2011. A tabulation of the

descriptive statistics can be found in *Table 3* below.

Table 3: Descriptive statistics table

Descriptive statistics of respondents		
Dscription	**Number**	**Percentage**
Male respondents	105	43.21%
Female respondents	138	56.79%
Would demand microfinance service in the next 6 months (males)	56	43.08%
Would demand microfinance service in the next 6 months (females)	74	56.92%
Used microfinance before	170	69.96%
Never used microfinance	73	30.04%
Satisfied with services	127	74.71%
Dissatisfied with services	43	25.29%
Ever had a bitter experience	89	52.35%
Never had a bitter experience	81	47.65%
Educational level below tertiary	186	76.54%
Tertiary education respondents	57	23.46%

Source: Researcher's survey data

4.4 Inferential Analysis

This section analyzes the t-test hypotheses to evaluate the differences in group means. It reports the hypothesis testing of gender and confidence in microfinance institutions, usage of microfinance services and confidence and lastly, the satisfaction from used microfinance services and the level of confidence in microfinance institutions.

4.4.1 T-test Analysis – Gender and Level of Confidence in Microfinance

The first hypothesis testing evaluates the mean difference of male and female respondents with respect to their level of confidence in microfinance institutions. *Table 4* below is the t-test output from SPSS.

Table 4: T-test of mean difference for gender and level of confidence in microfinance institutions

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Confidence	Male	105	111.9643	12.85886	1.25490
	Female	138	111.3678	14.84092	1.26334

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Confidence	Equal variances assumed	3.243	.073	.329	241	.743	.59653	1.81559
	Equal variances not assumed			.335	236.906	.738	.59653	1.78067

Source: Researcher's computation

From the above output, the Levene's test for equal variance in the independent samples test table is used to test for the normal distribution of the dependent variable which is the level of confidence in microfinance institutions in the case of this study. The

significance value of this test being greater than 0.05 means that there is equal variance indicating normality. Hence, the significance of the t-test hypothesis is deduced by comparing the significance two-tailed test for equal variance assumed to 0.05.

The significance value of 0.743 from the table above warrants that the null hypothesis fails to be rejected. This means that there is no significant difference in the mean level of confidence in microfinance institutions between male and female respondents.

The above finding is in line with Paichayontvijit and Shen (2013) who also found that there are no significant differences in trust issues between gender groups but contradicts the findings of Chaudhuri and Gangaddharan, (2003) and Dittrich (2015). The latter authors found that men tend to trust more than women which may be attributed to a higher degree of risk aversion for women. Another contrary finding to this study was by Haselhuhn, Kennedy, Kray, Van Zant, and Schweitzer (2015) who found that women are less likely to lose trust and more likely to restore trust than men.

4.4.2 T-test Analysis for Usage of Microfinance Services and Level of Confidence

A t-test to find if there is a significant difference in the level of confidence of respondents who have ever used microfinance services and those who have never used microfinance services gives the following output in *Table 5* of the next page.

Table 5: T-test output for level of confidence in microfinance institutions and usage of microfinance services

Group Statistics

	Microfinance usage	N	Mean	Std. Deviation	Std. Error Mean
Confidence	Yes	170	113.2721	13.63560	1.04580
	No	73	107.7911	14.15980	1.65728

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Confidence	Equal variances assumed	.510	.476	2.839	241	.005	5.48096	1.93026
	Equal variances not assumed			2.797	131.851	.006	5.48096	1.95966

Source: Researcher's computations

The dependent variable is normally distributed with a significance value of 0.476 in the Levene's test for equal variance which assumes equals variance. The two-tailed significance of 0.005 in the t-test for equal means represents a rejection of the null hypothesis that there is no significant difference in the means of respondents who have ever used microfinance services and those who have never used microfinance services. This is further evident from the group statistics table where the mean confidence of respondents who have ever used microfinance services is 113.2721 while those who have never used microfinance services have a mean confidence of 107.9711. The mean difference is estimated to be 5.48096.

A rejection of the null hypothesis means that there is a significant difference in the level of confidence in microfinance institutions between respondents who have ever used microfinance service and those who have never used these services. The individual

means of the categories shows that respondents who have ever used microfinance services have high confidence in microfinance institutions that those who have never used the service.

Most likely, the low level of confidence in microfinance institutions influenced the non-usage of microfinance services by these respondents. It can therefore be deduced that people who never used microfinance services have less confidence in microfinance institutions. Consequently, the confidence of such people needs to be boosted to get them to try using these services.

4.4.3 T-test Analysis of Service Satisfaction and Level of Confidence

The difference in mean test for the level of confidence and how satisfied respondents who have ever used microfinance services were, gave the t-test output in *Table 6* below.

Table 6: T-test output for service satisfaction and level of confidence in microfinance institutions

Group Statistics

	Service Satisfaction	N	Mean	Std. Deviation	Std. Error Mean
Confidence	Yes	127	116.3878	10.62089	.94245
	No	43	104.0698	17.13717	2.61339

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Confidence	Equal variances assumed	27.190	.000	5.554	168	.000	12.31803	2.21793
	Equal variances not assumed			4.434	53.334	.000	12.31803	2.77814

Source: Researcher's computations

The t-test output on the previous page shows an unequal variance of 0.000 p-value for the Levene's equal variance test. Therefore, the t-test analysis is interpreted using the two-tailed significance for equal variance not assumed. The p-value of 0.000 two-tailed t-test signifies a rejection of the null hypothesis. Thus, the mean confidence of respondents who were satisfied with the microfinance services that they used is significantly different from that of respondents who were not satisfied with the service by a mean difference of 12.318.

The mean from the group statistics shows that respondents who were satisfied with the microfinance services that they used have the highest mean confidence of 116.388 while respondents who were not satisfied had a mean confidence of 104.0698. These findings explain that the more a respondent is satisfied with the services of microfinance institutions, the better his/her confidence in these institutions. Microfinance operators can therefore, take maximum advantage of this discovery to increase people's confidence in the sector by finding ways to always satisfy their customers through the services that they offer. By doing so, the boost in confidence through customer satisfaction will, in the long run, increase the demand for microfinance services.

4.5 Level of Confidence in Microfinance Institutions

The confidence index of microfinance institutions is computed from the data collected. The level of confidence is calculated to be 146.50 index points. Based on the interpretation criteria of the measure adapted, an index above 100 points means

optimism. Therefore, 146.5 index point indicates that people are optimistic about the microfinance sector of the economy.

The above findings may be surprising at such a time when most institutions in the sector have collapsed or had their licenses revoked with some customers losing their money. Some of these customers and opinion leaders have been pleading for the government to take measures for their reinstatement by the defaulting firms (Awuni, 2016).

While conducting the study, the researcher's interactions with various individuals pointed towards a pessimistic outlook but the results show otherwise. Efforts being made by the Bank of Ghana to develop strategies to effectively monitor the operations of microfinance institutions (Ashiadey, 2016) may have given people the hope that the sector would perform better, hence the optimism. Stakeholders in the sector are also deliberating on measures to rebuild trust in customers (Abdullah, 2017). The parliament of Ghana calling also taking measures to fully investigate microfinance "scams" with interest in the DKM microfinance saga to prevent future occurrences (The Business and Financial Times, 2017).

The above could be reasons why respondents are optimistic about the microfinance sector of Ghana as well as other inherent issues.

4.6 Logistic Regression Results and Analysis

A multiple logistic regression was conducted using the SPSS statistical software with demand as the binary dependent variable and independent variables as the level of confidence in microfinance institutions of the individual respondents, gender and the education level of respondents generated the regression output below in *Table 7*.

4.6.1 Hypothesis Testing for Logistic Regression

Below is the logistic regression output from SPSS.

Table 7: Output of logistic regression of demand, gender, confidence, and education level

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Confidence	.083	.013	41.076	1	.000	1.086
	Gender	-.016	.301	.003	1	.958	.984
	Educ_level	-.915	.353	6.713	1	.010	.400
	Constant	-8.886	1.473	36.404	1	.000	.000

Dependent Variable Encoding

Original Value	Internal Value
No	0
Yes	1

Source: Researcher's computations

The estimated regression equation from the above output becomes;

Logit [p (Demand =1)] = -8.886 + 0.083 *Confidence Index* – 0.016 *Gender* –

0.915 *Education Level*

The null hypothesis for the logistic regression is;

H0: There is no significant relationship between demand for microfinance services and the level of confidence. It is rejected if the p-value of the estimated coefficient is less

than a significance level of 5% but fails to be rejected if otherwise. Referring to *Table 7* above, the p-value of 0.000 is less than a significance level of 5%. Hence, the null hypothesis is rejected indication that there is a significant relationship between demand for microfinance services and the level of confidence in microfinance institutions. This relationship is positive considering a positive coefficient of 0.083.

In the case of the controlled variables, gender is estimated to have an insignificant (p-value = 0.985) negative relationship with demand for microfinance services while the level of education also has a significant (p-value = 0.01) negative relationship with demand.

The exponential values of the coefficients (Exp (B)) in *Table 7* above are the odd ratios and explains the predicted change in the dependent variable given a unit increase in an independent variable. The odds ratio of confidence in microfinance institutions is 1.086. This means that given a unit increase in the level of confidence in microfinance institutions, demand for microfinance services will increase by 8.6% (100 * (1.086 – 1)).

The odds of the constant where no independent variables are included in the model is used to compute the probability of the dependent variable occurring. *Table 8* on the next page contains the output of the logistic regression with no independent variables.

Table 8: Regression output with only constant

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Step 0 Constant	.140	.129	1.187	1	.276	1.150

Source: Researcher's computations

The probability of demanding microfinance services based on the results of the regression output without independent variables illustrated in *Table 8* of the previous page is estimated to be $1.15 / (1+1.15) = 0.5348$.

The odds ratio of gender in *Table 7* implies females (coded in dummy as 1) have lesser odds than males. This is calculated as $1/0.984 = 0.016$. Thus, males are 0.016 times more likely to demand for microfinance services. However, this conclusion is statistically insignificant and contradicts the findings of Nallariand Griffith (2011) that women tend to save more than men.

The odds ratio of educational level in *Table 7* being 0.4 means with an education level below tertiary education (coded as 1 in running the regression), a person is 2.5 times (1/0.4) likely to demand for microfinance services than a person who has attained tertiary education. This further signifies that most people who attain tertiary education tend not to demand for microfinance services compared to those who had below tertiary education.

Given the R-squares in the model summary of *Table 9* below, 24.5% to 32.7% of the variations in the dependent variable, being demand for microfinance services can be explained by the independent variables in the model.

Table 9: Summary of logistic regression model

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	267.489	.245	.327

Source: Researcher's computation

4.6.2 Goodness of Fit Test

Upon using the logistic regression method to test for significant relationship, the Hosmer-Lemeshow (H-L) test for fitness is conducted. This test helps to determine how well the model fits the data. The logit model is considered the best fit for the data only when the H-L test has a p-value greater than 0.05 (Allison, 2014; Peng, Lee & Ingersoll, 2002).

Table 10*: Goodness of fit test for model*

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	13.624	8	.092

Source: Researcher's computations

Table 10 above represents the results of the goodness of fit test with a p-value of 0.092 which is greater than 0.05. It is thus concluded that the model is a perfect match for the data set in this study.

CHAPTER 5 – CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This is the last chapter of the research report. It summarizes the findings of the study, outlines conclusions and recommendations and suggested areas for future research.

5.2 Summary of Findings

The objectives of this study were to establish the level of confidence in microfinance institutions in Ghana with a keen interest in how this level of confidence affects demand for microfinance services as well as relates to various categories within the sample studied. Data was gathered through questionnaire administration and regression analysis and hypothesis testing methods were used to arrive at the following findings.

A total of 243 respondents surveyed showed that nearly 54 percent would demand for microfinance services in the next six months with 53.5 percent respondents who have ever used microfinance services. Approximately 57 percent of the respondents who would demand for microfinance services are females and 43 percent are males just as literature reviewed during this study showed that women tend to save more than men. About 75 percent of respondents who have ever used microfinance services are satisfied with the service that they were provided and 25 percent were dissatisfied. It is noted in this paper however that an increasing number of unsatisfied customers goes a long way to have a negative effect on the level of confidence people have in microfinance institutions.

The study also revealed that the respondents are optimistic about the microfinance sector of Ghana with 146.50 index points but no significant differences in the means of male and female respondents. On the other hand, there is a significant difference in the mean level of confidence for people who have ever used microfinance services and those who have never used microfinance services with those who have ever used microfinance services having high confidence in the sector.

Additionally, the confidence level of respondents is significantly positive related to the demand for microfinance services with a p-value of 0.000. A unit increase in the level of confidence in microfinance institutions leads to an increase in demand for microfinance services by approximately 8.6%. Furthermore, persons with an educational level below tertiary education would demand microfinance services more by 2.5 times compared to those with tertiary education.

5.3 Conclusions

The analysis of data indicated that Ghanaians in the Greater Accra region are optimistic about the microfinance sector. However, customers who are unsatisfied with the services that they receive from the microfinance institutions have low confidence in microfinance institutions compared to those who are satisfied with the services offered. People who have ever used microfinance services also tend to have relatively high confidence in the microfinance sector than those who have never used microfinance services.

Fortunately for the microfinance sector, more people will be demanding microfinance services within the next six months and the immediate future with women demanding more than men.

Further, the level of confidence in microfinance institutions being positively related to demand for microfinance services signifies that when there is a negative impact on the level of confidence in microfinance institutions, demand would be negatively affected. Conversely, a positive influence on confidence level would also positively impact demand for microfinance services. It should however, be noted that other factors could affect the demand for microfinance services apart from the level of confidence.

In sum, the level of public confidence in microfinance institutions in Ghana is 146.5 index points indication optimism in the sector. Also, there is a significant positive relationship between the level of confidence in microfinance institutions and demand for microfinance services.

Finally, there is no significant difference in the mean confidence level of men and women demonstrating nearly the same level of confidence for both men and women in the microfinance sector of Ghana. There is however significant difference in the mean confidence of people who have ever used Ghanaian microfinance services and those who have never used the microfinance services. The former group of people (those who have ever used microfinance services) have high confidence in the microfinance sector than the latter. Also, people who have acquired tertiary education have less confidence in the microfinance sector of Ghana than those with educational background below the tertiary level. The difference in the means of these two set of categories is significant.

5.4 Recommendations

It is recommended that stakeholders in the microfinance sector should take strategic measures to sustain and grow the confidence that people have in the services that they offer to increase their market and stay in operations. An increase in the level of confidence in the microfinance sector as illustrated by the logistic regression in the data analysis section of this report would lead to an increase in demand for microfinance services. Thus, boosting operations in the sector.

In addition, microfinance operators should pay more attention to satisfying their customers through the services that they offer while being truthful to them. Discovering that customers' satisfaction with microfinance services rendered to them plays a significant role in how much confidence an individual would have in the microfinance sector, management of microfinance institutions should take customer satisfaction seriously. Considering that falling levels of confidence can reduce demand just as an increase in confidence can boost demand, the satisfaction of customers should be a priority to microfinance operators.

Furthermore, microfinance operators can take the opportunity of a potential market for people with educational background below tertiary education. The findings of the data analyzed indicated that below tertiary educated persons have a higher tendency to demand for microfinance services more. Thus, innovative products may be designed for this segment of the market.

Some strategies that may be employed to boost confidence in microfinance institutions and the financial sector at large include but not limited to efficient customer services geared at addressing customer problems as and when they occur. The Bank of Ghana should also put in more effective measures of identifying firms running microfinance services without complying with regulations and the non-banking act early enough before lots of people fall victims of the dubious acts of these firms. Another way to spot non-complying firms early enough to avert serious future damages on the entire sector is for the Ghana Microfinance Institutions Network (GHAMFIN) to carry out internal checks and balance on operators in the sector to make sure that all are complying with the regulations of the Bank of Ghana.

Last but not the least, basic financial literacy programs may be organized to help customers of microfinance services understand some of the service provision conditions to prevent any course for deceit feeling, such a feeling can affect how satisfied the customer would be for the services offered. In addition, microfinance agents should be truthful to their customers in selling products to them. Sometimes, when there is no proper understanding of the terms and conditions of service such as charges and interest payments, there could be misunderstanding which may result in unsatisfied customers.

4.5 Limitations of Study

While conduction this study, the researcher faced some limitations. A major challenge with data collection was identified as language differences. The researcher's inability to speak the Akan native language, *Twi*, contributed to fewer responses received

than expected. The required number of responses was 358 to enable for easy generalization of research findings and reliability. A total of 243 responses were however received although the researcher sort for external help from colleagues in administering the questionnaires.

Also, more than one form of validity tests could not be conducted on the adapted confidence index questionnaire from the Central Bank of Turkey due to procedural challenges. A second validity test could have affirmed the findings from the construct validity test and strengthened the position that the adapted measure is appropriate for academic research.

5.6 Directions for Future Research

Researchers who may want to contribute to the literature on microfinance in Ghana may study the areas of possible causes for low confidence in microfinance institutions and their remedies.

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Appendices

Figure 1

A Graph of 2015 Financial Inclusion Status of Ghana
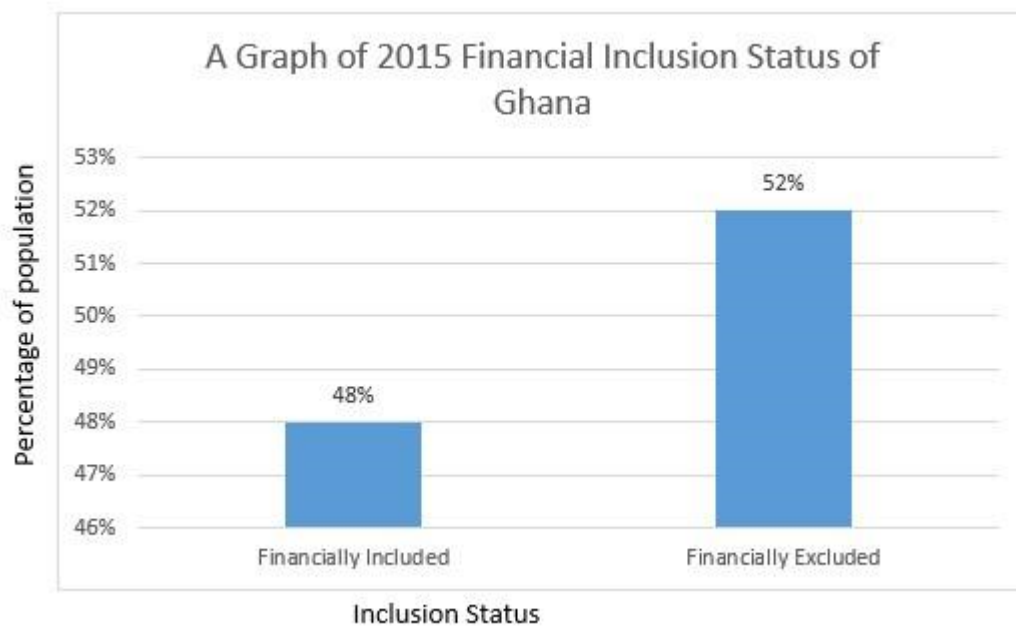
Source of data: Consultative Group to Assist the Poor (CGAP), (2015)

Public Confidence Index Questionnaire

Respondent's Consent

I would like to ask for your permission to be part of this research conducted to test the level of confidence in microfinance institutions in Ghana. This research is a requirement of my Bachelor's Degree Program in Business Administration and adds to the already available literature on microfinance institutions in the country. Your participation in this research will be very much appreciated and you are free to opt out of the research process any time at your own will. The research would however require five to ten minutes of your time and your responses will be used for academic purposes only. The results of the research are likely to inform the decisions of microfinance operators in the quest to improve confidence leading to the provision of better services which you may enjoy. If you have any questions, please feel free to ask or direct them via email to

millicentbola@gmail.com.

If you agree to be part of the study, please sign and or fill in today's date.

Signature of respondent: _____   Date: ____/_____/_____

This research protocol has been reviewed and approved by the Ashesi University Human Subjects Review Committee. If you have questions about the approval process, please contact Chair, Ashesi University HSCR via *adafla@ashesi.edu.gh*.

Please indicate how well you agree with the following statements by circling the right

option *(one response to a question)*

	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
1. Generally, microfinance institutions have improved in the past six months	5	4	3	2	1
2. Microfinance institutions will improve in the next six months	5	4	3	2	1
3. I think demand for micro-finance services have increased in the past six months	5	4	3	2	1
4. I think demand for micro-finance services will increase in the next six months	5	4	3	2	1

Please tick in the appropriate boxes

5. Would you patronize microfinance services in the next six months?

   Yes ☐

   No ☐

6. Do you bank or have you ever banked with a microfinance institution?

     Yes   ☐; if yes, please answer question (I) below

     No   ☐; if no, please move to question 7

  I. How satisfied were you?

     Very satisfied   ☐

     Satisfied   ☐

     Dissatisfied   ☐

7. Have you ever had a bitter experience with a microfinance institution? (e.g mobile

    banker's attitude, loss of money etc)

     Yes   ☐

     No   ☐

8. Gender of respondent

     Male   ☐

     Female   ☐

9. Occupational status

     Petty trader   ☐

     Government official   ☐

     Self-employed/private sector   ☐

     Student   ☐

10. Highest educational level attained

Junior high school /below ☐

Senior high school ☐

Tertiary (College/Polytechnic) ☐