COLLEGE OF HUMANITIES

FINANCIAL INCLUSION AND FIRM PERFORMANCE IN GHANA: GENDER DIMENSION

BY

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DECLARATION

I, MIRIAM OSEI-KOFI, the author of this thesis titled "**FINANCIAL INCLUSION AND FIRM PERFORMANCE IN GHANA: GENDER DIMENSION**" do hereby declare that, aside from the references to other people's work, which have been duly acknowledged, this thesis is the result of my original work. This work has never been presented either in whole or in part for any other degree in this university or elsewhere.

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ABSTRACT

The principal objective of this paper is to ascertain and examine the presence of gender gaps in the performance of SMEs in Ghana, and to determine the contribution of financial inclusion to the gender performance gap of 1225 SMEs observed in the Gender and Enterprise development in Africa survey in 2015. Using the Unconditional Quantile Decomposition Technique, the findings from the study revels statistically significant gender gaps at the selected quantiles. Financial inclusion positively contributes to the gender performance gap. Constructing indexes from various formal and informal financial products as a measure of financial inclusion and further ranking it to those who are more, less or averagely inclusive, we found that the less inclusive owners of SMEs perform lower than those that are highly inclusive. Being financially included therefore improves the performance of SMEs across gender.

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CHAPTER ONE

INTRODUCTION

1.0 Background of Study

Small and Medium Enterprises (SMEs) are recognized as engines for citizen empowerment and achievement of economic growth across the world. They play a massive role in the economies of developed and developing countries including USA (Aranoff et al., 2010). Through its activities such as innovation, job creation, and diversification of industries among others, SMEs have helped most Asian and North American countries to achieve rapid growth over the years, (Schapper, 2002). There are empirical studies that have hammered on the contribution of SMEs to economic growth and development of countries. For instance, Schapper (2002) reports that SMEs contribute to about 60% of China's industrial sector and also employs about 75% of the workforce in China's cities and towns.

In Africa, SMEs are gradually being acknowledged as drivers for economic growth and development. SMEs contribute to about 70 percent of Ghana's Gross Domestic Product (GDP) and 92 percent of its businesses. (Abor and Quartey, 2010). They also make up 46% of total economic activities and 84% of private employment.in South Africa (Axel Volkery & Klaus Jacob, 2004). SMEs also serve as a push for economic diversification via their development of new sectors of the economy. Technology-based and innovative SMEs provide interesting platforms for expanding outside of domestic borders, and entering intra-regional and international markets.

In Ghana, The National Board for Small Scale Industries (NBSSI) defines SMEs as enterprises with turnover between the range of USD 200,000 and USD 5 million equivalent.

In classifying SMEs based on the size of labour force and plant size, NBSSI classifies firm with workers not exceeding nine, and the value of plant and machinery (excluding land, buildings and vehicles) not above 10 million Ghanaian cedis as an SME.

SMEs ownership in Ghana are women dominated but their performance does not match their numbers. According to the Ministry of Gender, Children and Social protection and also the Ghana Statistical Service, a greater percentage of SMEs are owned by women and their performance is lower than their men counterparts resulting in a gender inequality gap. The low performance of women owned SMEs can be attributed to customary practices, lower levels of education, less access to resources and restrictions on their mobility due to child bearing and housekeeping (IFC ,2011). Empirical studies confirm the existence of a direct relationship between gender equality and economic growth (Klasen & Lamanna, 2009). In view of this, the 5th goal of the SDGs aims at bridging the inequality gap in all sectors/ areas of economies to ensure sustainable development. Thus, the disparities in the performance of SMEs in Ghana with respect to gender hinders the achievement of sustainable development.

The government of Ghana, through various policies such as the National Gender Policy is working towards gender equality. The policy aims at mainstreaming gender equality concerns into the national development process by enhancing the civic, legal, social, economic, political and socio-cultural conditions of Ghanaians. However, these policies and initiatives often lack targets and monitoring and evaluation framework.

Although most SMEs in Ghana are unable to access finance from external source, the predicament is worse for female-owned SMEs (Elizabeth Asiedu, 2013). Previous studies conducted in Ghana have shown that women-owned SMEs are unable to access finance from banks and other financial institutions. Usually, women managed SMEs are home-based relative to those managed by men. They operate from home and are often excluded in official

statistics (Abor & Quartey, 2010). Their exclusion from official statistics affects their chances of getting access to finance since most financial programs that will promote SMEs finance do not factor the needs of SMEs that are managed by women. The administrative costs associated with the financing schemes often outweigh the profits making it challenging for women entrepreneurs to take advantage of these credit schemes.

A significant proportion of Ghanaian women are either illiterates or semi–illiterates. The illiteracy rate for women is about 31.5% as against 19.8% for men in Ghana (2010 population and Housing Census Report, Ghana Statistical Service). This creates a problem with respect to book keeping and processing paperwork with the financial institutions. Women are mostly involved in sole-proprietorship businesses which are mainly microenterprises and their lack of control over resources, such as land and labour, also limits their eligibility for loans as they are not able to provide the necessary collateral to qualify for loans (Aryeetey et al, 1994; Abor & Biekpe, 2006). Banks' ability to lend is often constrained by inflation-induced de-capitalization, resulting mainly in insufficient funds available to finance loan requests. In such cases, it is the women who receive the lowest priority (IFAD, 2000). These hitches among others tend to negatively affect the financial inclusiveness of women owned SMEs, which further affects their performance and the performance of SMEs in general.

The financial exclusion of most SMEs especially women owned SMEs in Ghana negatively affects the country in achieving an inclusive and sustained growth since financial inclusion is one of the main building blocks of inclusive and sustained growth in the world (Thouraya Triki & Issa Faye, 2013).

To find solutions to the challenges that SMEs face and also to promote its expansion, The Ghana government has set up a ministry for private sector development. The main duty of

this ministry is to provide a conducive environment which allows private firms to operate efficiently.

Africa has been experiencing great advancement in financial inclusiveness. The Global Findex Database (2017) reported that the percentage of adults in sub Saharan Africa that are financially included increased from 23% in 2011 to 43%in 2017. In Congo, mobile money services have increased to 16% as at December 2017 (Shapshak,2018). Also, Kenya was listed first in the overall ranking of the Brookings 2017 Financial and Digital Inclusion Project. The continent over the past six years have experienced a 20% growth in financial inclusion with respect to mobile banking, (Shapshak,2018). However, this advancement is not realized in the operations of women owned SMEs in Ghana. According to the Global Findex Database report in 2017, women in developing countries are 9% less likely than men to be financially included (have a bank account). Thus, they are not able to reap the full benefits from the formal financial institutions such as the provision of credit. Without the needed finance, most of these women-owned SMEs are unable to expand to make a meaningful contribution to employment creation and economic growth.

1.1 Problem Statement

SMEs play a major role in the development of every country in terms of employment, wealth creation and innovation development (Nieman, 2003). Notwithstanding the contributions of SMEs especially women owned SMEs to economic growth such as job creation and other social benefits, their performance is still low compared to the men owned SMEs. One of the factors that affect the performance of SMEs is the level of financial inclusion. Financial inclusion minimizes liquidity constraints and boosts investment. It has important effects on firm size, competition, industrial structure, and activities in both the formal and informal

sector, especially in developing countries (Beck et.al, 2005). This major constraint, affects SMEs performance especially women owned SMEs, contributing to the disparities in the gender performance of SMEs in Ghana. If this situation is not addressed, the economy will be ripped off the economic as well as social benefits of women owned SMEs.

Several studies have hammered on the impact of financial inclusion on the performance of SMEs across the globe. Basing on studies conducted in 29 developing countries, Chauvet and Jacolin (2015) reported that financial inclusion has a positive influence on SMEs performance at the sectorial level. Also, other research reports have shown that there exist gender differences in the level of financial inclusion. For instance, the World Bank Global Findex (2014) reports that more men (65%) than women (58%) are financially included. The gender differences in the level of Financial Inclusion is therefore one of the main explanatory factors accounting for the low performance of women owned SMEs, (Allen et al, 2014).

Studies have shown that the severity of access to bank credit as a major limitation to SMEs differs with respect to gender (Ongena & Popov, 2015). Financial inclusion is therefore positively related to the performance of SMEs and as such contributes to the gender performance gap of SMEs. Notwithstanding, none of the available studies to the best of my knowledge considered the gender dynamics in the effect of financial inclusion on the performance of SMEs in Ghana and the contribution of the gender differences in financial inclusion to the gender performance gap of SMEs.

This thesis therefore attempts to investigate the effect of financial inclusion measured as an index from various formal and informal financial products on the gender performance gap of SMEs using the Unconditional Quantile Decomposition Technique. Also, the study will look further into the contribution of financial inclusion to the gender performance gap of SMEs. These constitute the novelty of the thesis.

1.2 Research Questions

The basic questions that motivates this study are;

- What is the effect of financial inclusion on the performance of men and women owned SMEs in Ghana?
- What is the gender performance gap of SMEs in Ghana along the entire performance distribution?
- What is the contribution of financial inclusion to the gender performance gap of SMEs in Ghana?

1.3 Research Objectives

The overall objective of this study is to investigate the effect of financial inclusion on the performance of men and women owned SMEs in Ghana at selected points along the distribution chain.

Specifically, the study will be addressing these issues;

- Estimate the gender performance gap of SMEs in Ghana.
- Examine the contribution of financial inclusion to the gender performance gap of SMEs in Ghana.

1.4 Significance of the Study

SMEs function as a driving force for economic growth (Sarwar, 2000). They help in alleviating poverty as its development serve as a way of ameliorating poor economic performance and lifting living standards. The growth of SMEs therefore contributes to the achievement of the sustainable development goal 1 (i.e. End poverty in all its forms

everywhere). The development realised in advanced countries such as Korea, Japan and Taiwan is attributed to SMEs activities (department of statistics, Malaysia). Governments of developing countries have to delve into sustainable means of improving the performance and growth of their SMEs.

Low levels of financial inclusion reflected in low access to finance has been the major obstacle hindering the growth of SMEs in developing countries. In Africa, the percentage of firms with a bank account is comparable to that of other developing countries. In Algeria and Morocco for example, about 84% and 79% of SMEs have a bank account respectively (world bank enterprise survey). Yet most of these firms in Africa have limited access to external funds. Only 22% of SMEs have access to bank credit compared to about 43% in the other developing countries (African Development Bank). This problem is worse for the women. Former studies show that 4 out of 5 women lack access to a formal bank account as compared to 1 out of 4 men in Africa.

Earlier studies conducted on the impact of financial inclusion (measured using one financial product, see Chauvet &Jacolin, (2015)) on the performance of SMEs were done and policy recommendations were made not considering gender. Hence the need for this paper. Using the unconditional quantile regression-based decomposition technique, the study will analyse the effect of financial inclusion measured as an index from various formal and informal financial products on the performance of men and women owned SMEs. The gender disparity in the performance of SMEs will be investigated in addition to the contribution of financial inclusion to the inequality gap. Results from this study will inform and guide policy makers to come up with good and hopeful policies that will bridge the inequality gap with respect to the level of financial inclusion.

1.5 Organisation of the Study

The study is organized into six chapters. Chapter one introduces the study. It comprises the general background, the problem statement, research objectives and the significance of the study. Chapter two provides an overview of SME and the level of financial inclusion in Ghana. Chapter three of the study centres on the literature review. Chapter four discusses the research methodology. Chapter five presents and discusses the study results. The concluding chapter, Chapter six, summarizes the findings and conclusions of the study.

CHAPTER TWO

OVERVIEW OF SMEs AND FINANCIAL INCLUSION IN GHANA

2.0 Introduction

This chapter explores the concept of SMEs with emphasis on the various SME definitions, its development in Ghana, the benefits as well as the challenges of SMEs in Ghana. The chapter also gives an overview of the level of financial inclusion in Ghana.

2.1 Conceptual Framework of SMEs

U.S. Census Bureau defines an enterprise as a business organization consisting of one or more domestic establishments under common ownership or control**.** Storey (1994) also posited that, definition of SMEs is equivocal. Some are defined based on the size of the labour force whilst others are also based on measures such as profitability, net worth or turnover. The first attempt to define SMEs was by the Bolton committee in 1971. The committee came up with a statistical as well as an economical definition. Under the economical definition, a firm is regarded as small if it has a relatively small share of the market, is independent and its managed by owners or part owners in a personalized way, that is, its management does not follow a formalized management structure. With respect to the statistical definition, Small firms could employ up to 200 workers. The statistical definition was to be used in quantifying the size of the small firm and its contribution to GDP and also to compare the extent to which the contribution of small firms to economic growth has changed over time.

2.1.1 Weakness of the Bolton Definition of SMEs

There were a lot of weaknesses associated with the Bolton Committee definition for SMEs. First, the economic definition that a small business is managed by its owner and not through a formal management structure is irreconcilable with its statistical definition of small firms having up to 200 employees. As firms grow, owners tend to delegate some responsibilities to a team of managers thus making the economical and statistical definitions incompatible. Secondly, the Bolton's economic definition of SMEs considers small firms to be functioning in a perfectly competitive market but this may not apply as most SMEs provide specialized services in geographically remote areas where they do not observe any clear competition (Wynarczyk et al, 1993; Storey, 1994).

In Addition, the statistical definition was criticized on the ground that construction of index numbers is required to compare monetary units over time to cater for price changes. Also fluctuations in currency makes international comparison difficult. Again, three different upper limits and two different upper limits were identified for turnover and number of employees respectively for various sectors. The statistical definition considered small firms to be homogeneous, however firms may grow from small to medium to large (in some cases). Against this background, various definitions have emerged.

2.1.2 Other Definitions of SMEs

According to the European Commission (EC), SMEs are made up of three components;

- Micro enterprises – 0 to 9 workers
- Small enterprises – 10 to 99 workers
- Medium enterprises – 100 to 499 workers

The EC definition is based on the number of employment rather than the firms net worth or turnover.

The European Union in 2005 came up with a new definition of SMEs in terms of financial assets. According to the European Union, medium sized enterprises (50-249 employees), small enterprises (10-49 employees) and micro enterprise (less than 10 employees) should have a turnover not more than EUR 50 million, EUR 10 million and EUR 2 million, respectively.

The United Nations Industrial Development Organization (UNIDO) defines small enterprises in developing countries to be firms that employ between 5 to 19 workers and firms with fewer than 5 workers as micro firms. Firms that employ between 20 to 99 workers and 100+ workers are classified as medium and large scale enterprises respectively. However, for industrialized countries, UNIDO defines their small firms to be firms that employ not more than 100 workers with their medium and large firms employing between 100 to 499 workers and 500+ workers respectively. The world bank group since 1976 classify firms with $250,000 value of fixed assets as small scale enterprises.

2.1.3 Definition of SMEs in Ghana

SMEs are independent non-subsidiary firms which employ less than a given number of employees. The number of employees varies across countries with 250 as the frequent upper limit. However, the United States of America have its upper limit as 500 employees. The Ghana Statistical Service (GSS) classifies enterprises that employ less than 10 people as small businesses whilst those that employs above that figure is also referred to as medium and large sized enterprises.

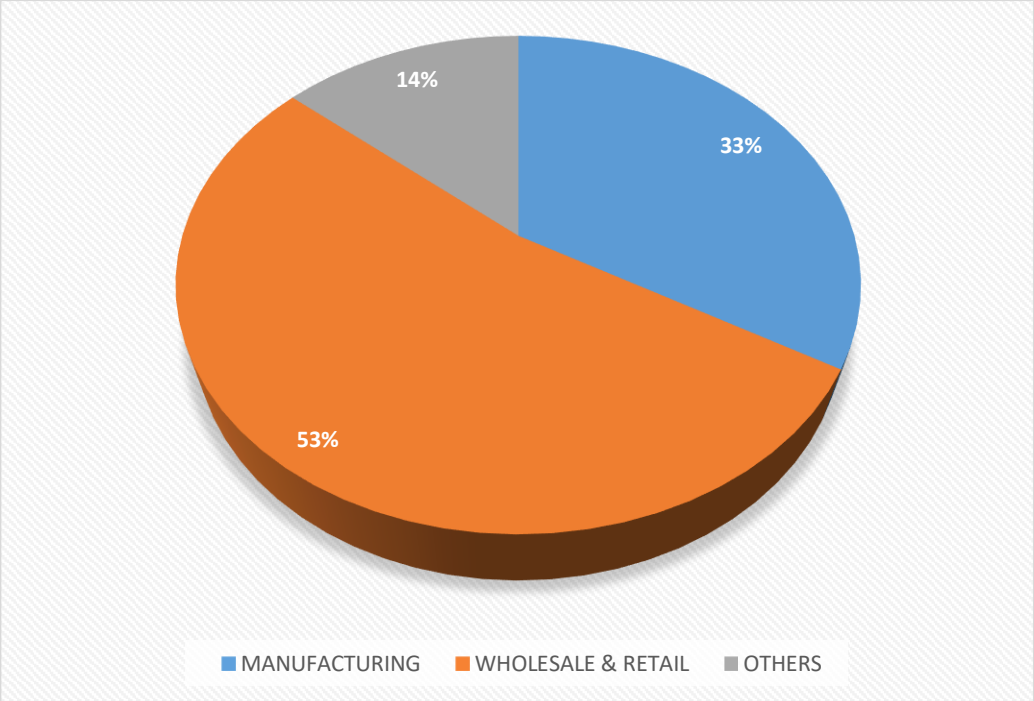
Alternatively, the National Board for Small Scale Industries (NBSSI) also uses fixed assets and number of employees to define and classify SMEs in Ghana. Enterprises that have plant and machinery excluding land, buildings and vehicles not exceeding 10 million Ghanaian cedis and employ not more than 29 workers are classified as small scale enterprises. Enterprises that employ not more than 100 workers are classified as medium scale enterprises. The Centre for Scientific and Industrial Research (CSIR) defines SMEs as enterprises that employ not more than 30 people including apprentices. Also, banks in Ghana have its own way of defining SMEs and their definition varies from one bank to the other.

2.2 SME Activities

According to the Ghana National Industrial Census (NIS), there were 26,190 micros, small and medium sized enterprises in Ghana in 2003, comprising 95% of all business units in the country. Based on the NBSSI classification of SMEs, 54.5% of the total number of SMEs were micro enterprises.

The activities of SMEs are classified into two main areas; farm and non-farm. Farm SMEs comprises of crop and animal production. Non-farm SMEs on the other hand is classified into three main areas namely; manufacturing (food, textiles, wood, plastics and rubber, electronics, basic metals, furniture, publishing, printing and recorded media), Wholesale and Retail, and other services (IT, transport, construction, services of motor vehicles). In 2003, 25,837 out of the 26,088 small and medium sized business units were in the manufacturing sector (NIS,2003). 409 out of the 1225 observations in the Gender and Enterprise Development in Africa Survey were in the manufacturing sector. This is presented in figure 2.1.

Fig 2.1 Industrial Classification of SMEs in Ghana



Source: computed from the gender and enterprise development in Africa survey,2015

2.3 Characteristics of SMEs in Ghana

In Ghana, SMEs are the main channels through which most items are produced, distributed and consumed. SMEs differ from large scale enterprises by their size and mode of operations. The common characteristics of SMEs are

- they are mostly one man businesses/ sole proprietorship.
- They use simple tools and technology in their production
- They are labour intensive
- They rely on local raw materials and
- There is easy entry and exit.

2.4 Development of SMES in Ghana

In the 1960s, SMEs growth was not notable as much focus of the government was on state participation and the domestic indigenous sector was not encouraged. But in the 1980s the economy experienced a recessionary period, inflation rates were high and employment in large scale enterprises stagnated (Kayanula & Quartey, 2000). Production in the large scale enterprises fell below their capacity because most of them depended on imported input. With the recession, there was a lack of foreign exchange to import the necessary equipment and inputs needed for production. This gave room for the growth and promotion of employment in Small Scale Enterprises. SMEs were able to use local materials to produce goods that were essential and fill in the industrial gap created by the low performance of large scale enterprises. Self –employment increased by 2.9% per annum (Steel & Webster, 1991).

The government of Ghana in view of this began promoting SMEs to help achieve a private oriented development strategy. According to Kayanula & Quartey, (2000), the role of SMEs was modified to incorporate;

1. Help the state in reducing its participation in direct production.
2. Engage labour from the public sector since SMEs are more labour intensive and lastly,
3. Develop local skills (entrepreneurial and managerial) for sustained industrial development.

2.5 Institutions and Policies Towards SMEs Growth in Ghana

To enhance development and growth of SMEs, the government put in place various measures and policies. For instance, in 1992, the government set up the Private sector advisory Group to strengthen the private sector of the economy. In addition, a legislative instrument which

grants immigrant quota for investors was passed and the manufacturing industries Act, 1971 (Act 356) as well as the Investment Code of 1985 (PNDC law 116) which annulled price control laws and promote joint ventures between foreign and local investors respectively were abolished. Amongst the policies and institutions geared towards SMEs growth are;

2.5.1 Rural Enterprise Programme (REP)

The Rural Enterprise Programme (REP) in Ghana is part of the government's efforts to alleviate poverty and improve living conditions in the rural areas. The REP is an upgraded version of the rural enterprises project which was passed on in 66 districts across the country between 1995 to 2011. The goals of the REP are to enhance the welfare and income of SME entrepreneurs in the remote areas, and to increase the number of rural SMEs that generate profit, growth and employment opportunities.

The REP aims at broadening the district based micro and small scale enterprises support system started by the rural enterprise project to include 161 municipalities and districts in all the ten regions of the country by 2020. Activities of REP are funded by the international fund for agricultural development (IFAD) and African development bank (AfDB). In collaboration with NBSSI and GRATIS, REP has been providing training programmes in areas of record keeping, banking procedures, marketing clinics, costing and pricing, credit management, business ethics among others for SME entrepreneurs. As at 2011, the programme had given skills training to over 60,000 people in dress making, soap making, animal rearing, batik tie and die etc. REP organises annual exhibitions for entrepreneurs to showcase their products and broaden their market base. The programme has made great impact in the promotion of SMEs in Ghana.

2.5.2 National Board for Small Scale Industries (NBSSI)

In other to enhance SMEs growth the Ministry of Trade and Industry established the National Board for Small Scale Industries (NBSSI) in 1981 and it began operations in 1985. The NBSSI is responsible for the promotion and development of SMEs in Ghana. The objectives for establishing NBSSI are:

- To contribute to the creation of a conducive environment for SMEs development
- To contribute to the development of an enterprise culture in Ghana
- To facilitate access to substantial and high quality business development services for the development of SMEs.
- To facilitate access to credit for SMEs and
- Promoting SME sector associations

Activities of the NBSSI focus on providing financial and non-financial services to entrepreneurs in fulfilment of their objectives. The Financial services comprises the provision of credit schemes to individual entrepreneurs and credit schemes to municipal and district assemblies. Non-financial services provided by the NBSSI include;

1. facilitating access to an enabling environment through the provision of relevant information, explanation of government policies and procedures and helping entrepreneurs fulfil all regulatory requirements and the provision of a platform to help them exhibit their products
2. facilitating access to credit through the provision of advice and direction and credit delivery and recovery services.
3. Training and counselling and
4. Providing support to business associations.

To fulfil its obligation of promoting Small and medium scale enterprises in Ghana, the NBSSI has put in place various policies and measures. Amongst them are;

2.5.2.1 Entrepreneurial Development Programme

The Entrepreneurial Development Programme was established to promote SMEs through stimulatory and supportive kinds of activities. Through the programme, persons with entrepreneurial skills and abilities are trained and given the necessary assistance to start their own businesses. The Entrepreneurial Development Programme therefore seeks to identify, select, train and motivate persons to become good entrepreneurs.

2.5.2.2 Business Advisory Centres (BACs)

To ensure that the services of NBSSI reaches the entire population, the business advisory centres were opened within the districts of the country. As at the end of 2017, NBSSI had 170 BACs in 170 districts in Ghana. The BACs has the mandate to strengthen SMEs by providing advisory, training and financial support to potential and current entrepreneurs. The BACs are the extension wings of the NBSSI. They provide relevant information and the needed guidance to entrepreneurs making them competent and confident businesspersons. The BACs link entrepreneurs to financial institutions for credit facilities and also facilitate the registration of SMEs with the Registrars General Department in fulfilment of their legal obligation.

2.5.2.3 Ghana Institutional Support Project (GISP)

GISP is an initiative of NBSSI to support private sector development and competitiveness in Ghana. The project aims at creating an enabling environment for inclusive economic growth through the provision of credible public financial management systems for small and medium scale enterprises in the country. 1n 2017, about 900 SMEs received training under this project. It has been identified that most owners or entrepreneurs of SMEs do not update their knowledge and skills in their field of endeavours. The provision of training services by the GISP goes a long way to help solve this problem thus enhancing opportunities for accelerated growth and poverty reduction in the country.

2.5.3 Ghana Regional Appropriate Technology Industrial Service (GRATIS)

GRATIS foundation was implemented in 1987 to promote micro, small and medium scale enterprises in Ghana. The foundation provide technology based support to SMEs. Through training, manufacturing and supply of tools, plant and equipment, GRATIS transfers appropriate technology to SMEs to help promote their growth. It is the role of GRATIS to oversee the operations of Intermediate Technology Transfer Units (ITTUs). ITTUs are intended to grow the engineering capabilities of small scale manufacturing and service industries involved in vehicle repairs and also address the needs of non-engineering industries. As at 2009, about 6 ITTUs had been set up in Tema, Kumasi, Ho, Cape Coast, Sunyani and Tamen.

2.6 Financial Assistance Towards SMEs Growth in Ghana

The challenges associated with SMEs have been widely researched and most of the researchers concluded that access to finance is a major problem that impedes SMEs growth.

As part of efforts to find solutions to such problems in Ghana, the bank of Ghana introduced a credit guarantee scheme to enable commercial banks provide financial assistance to SMEs. Also a fund of about 28million dollars obtained as credit from the World Bank has been set up to aid in providing finance to SMEs. In addition, 2million dollars was set aside under the Programme of Action to Mitigate the Social Cost of Adjustment (PAMSCAD) to assist SMEs in the Country.

In addition to the efforts made by government to address the access to finance problem of SMEs, many commercial and rural banks have also been established to provide SMEs with access to the necessary credit to improve their performance.

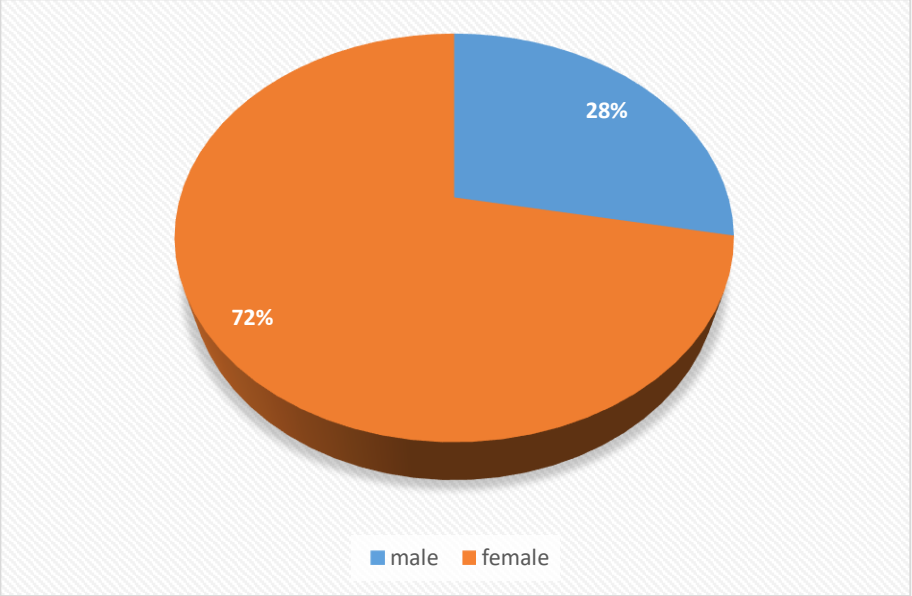
2.7 Gender and SME Participation

The entrepreneurial characteristics of an SME of which gender is the main determinant has major influence on the performance as well as the growth of the SME. Whiles some countries have majority of their SMEs been men owned, others such as Ghana have women dominating their SMEs ownership. International Finance Corporation (IFC) defines women owned SMEs are firms that have more than 50% of the owners being women and can also access a loan ranging from $10,000 to $2,000,000. Again, IFC stated that, for an SME to be considered as women-owned, these features must prevail; 51% of owners must be women or more than 20% of ownership should go to women and at least one woman should be made as CEO as well as one third of the board of directors being women.

Globally, the relative share of men owned SMEs is higher than that of women owned SMEs. In the Middle East and North Africa, 86% of SMEs are men owned. Likewise, within the Sub Saharan African Region, 76% of the SMEs are men owned with just 24% of SMEs been owned by women (IFC enterprise finance gap assessment database, 2011). Countries such as

Canada and Nigeria have their SME ownership dominated by men (Gottschalk & Niefert, 2012; Eikhof et al. 2013; Rosa & Sylla, 2016) confirming the IFC enterprise assessment database in 2011. On the contrary, In Ghana, majority of the SMEs are women owned and are normally involed in the informal sector of the economy. Women owned SMEs in Ghana are mostly home based and sole-poprietership businesses. This confirms the fact that women have a significantly lower probability of engaging in non agricultural SMEs than men but higher with respect to self employment in Ghana and Uganda (Newman & Canagarajah , 2000).

Fig 2.2 Percentage Share Of Men And Women Owned SMEs In Ghana.



Source: computed from the Gender and enterprise development in Africa survey,2015

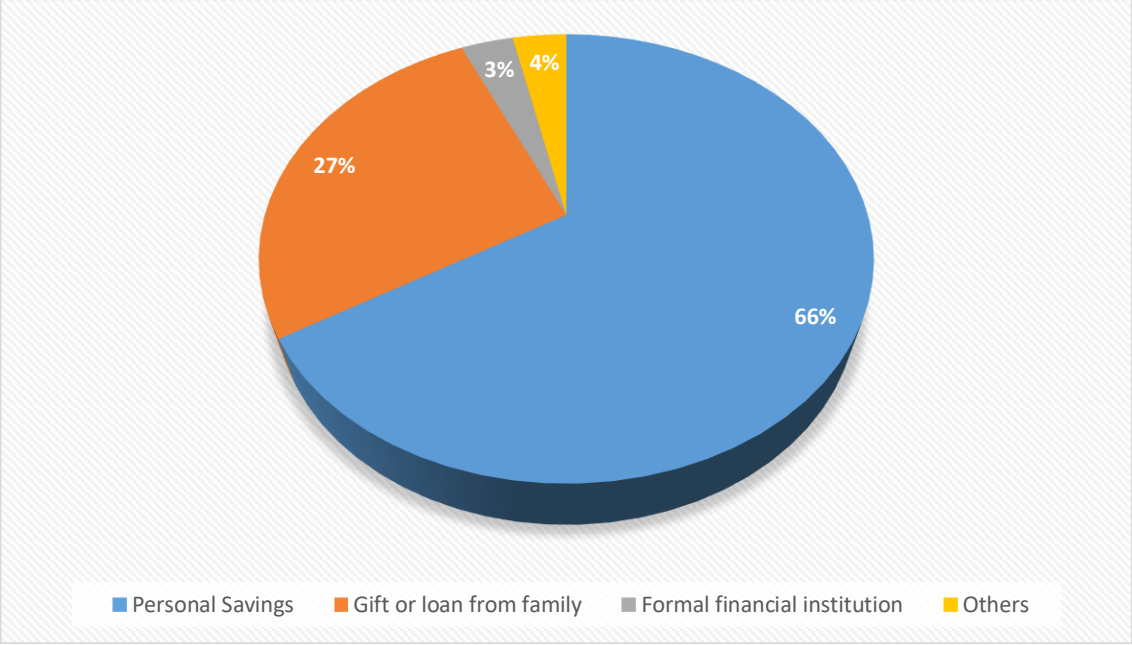
2.8 Sources of Capital for SMEs

Capital or finance is very important for the success of SMEs globally. Without the necessary capital/finance enterpreneurs wont be able to put their ideas into action. Sources of finance for SMEs can be categorized into 2 broad areas; internal source and external source. Internal soucres of finance include personal savings,retained profits and share capital while external

sources of finance comprises of a bank loan, a bank overdraft, share capital-outside investors,etc..

Literature reveals that because of relatively high interest rates, most SMEs are unable to obtain bank credit to finance their businesses, thus they rely on their personal cash and sometimes money from friends and family. According to the Business Barometer Survey in 2015, about 65% of UK SMEs finance their businesses with their own money/cash, 15.6% uses bank loans with about 6.3% gaining external funds from family and friends. Also, the GLSS 6 report indicates that, about 90% of non agric SMEs in Ghana depend on their savings to finance their business as they were denied bank credit. However, about 8% of the SMEs received finance from banks, friends and families, other financial asgencies, NGOs and corporate associations. The use of internal funds relative to the use of external funds among most SMEs in Ghana is in line with the Pecking Order Hypothesis which postulates that, businesses adhere to hierarchy of financing sources and prefer internal financing when available over external financing.

Fig 2.3 Sources of Capital for SMEs



Source: computed from the Gender and Enterprise Development in Africa Survey,2015

The performance of SMEs is related to the start up capital and the retension of profits into the enterprise. In Cases where there is economic instability coupled with conditions such as currency depriciation, high interest rates among others, most SMEs collapse. For instance, the enerygy crises between 2014 and 2016 in Ghana caused local manufacturing costs to escalate leading to the collapse of most SMEs.

2.9 Why SMEs Matter

SMEs are vital requirements for a healthy market economy in every country. SMEs make up a larger share of world businesses. SMEs play a major role in they growth of every country as they help to enhance and strengthen reforms. They have an inherent interest in promoting policies and also empowering a strong middle class that can serve as a constituency seeking democractic reform and sound economic governance.

According to Dinye (1991) the gains from SMEs include:

- They offer a variety of activities which draw labour from the surplus rural labour force and channel them into other productive sectors of the economy;
- They generate competition, initiative and dynamism within the economy making it more functional;
- SMEs use the nation's idle materials which otherwise would go to waste;
- They contribute to community stability, do less harm to the physical environment, stimulate local resource mobilization for investment and generally raise the level of popular participation in the economy;
- They induce linkages within the industrial sector and between it and other sectors of the economy;

- They depend little on imports and therefore conserve foreign exchange; They provide a variety of goods and services to satisfy local needs;
- They provide outlets for the talents and energies of enterprising individuals because of their ease of entry and exit;
- They provide a seedbed for nursing entrepreneurial skills and testing ground for new industrial enterprises.

SMEs have been an engine for innovations and they contribute to economic growth through poverty reduction, redistribution of wealth, investment, exports and employment creation. SMEs employ about 22% of the adult population in developing countries (Fisseha & McPherson, 1991; Daniels & Ngwira, 1992). SMEs are more labour intensive than the large sized enterprises thus they require lower capital cost associated with job creation. Because of their size, SMEs are more flexible in nature and are capable to endure adverse economic conditions.

SMEs account for 60% and 55% of employment in Ghana and Canada respectively, 70% of total employment in the European Union and about 70% of private sector employment in South Korea, (Ayibani,2011).

According to Romijn & Albaladejo, 2002, SMEs tend to be extensively disseminated reaching remote and marginalized areas, hence they help reduce the income gap between urban and rural areas.

2.10 Constraints to SMEs Development

Notwithstanding the benefits and contribution of SMEs to economic growth, their activities are faced with many challenges that affects their performance and growth (ILO, 2002). Most of the challenges SMEs face in their activities is attributed to the higher unit cost of providing

services and the absence of economies of scale and economies of scope in the main factors of production (Schmitz, 1982; Steel & Webster, 1990; Liedholm & Mead, 1987).

Constraints to the growth of SMEs have been widely researched (Beck & Demirguc-Kunt, 2006; Mambula, 2002 Mead & Liedholm, 1998; Snodgrass & Biggs, 1996) and the common challenges identified are access to finance, marketing problems (domestic and international), regulatory constraints, entrepreneurial constraints as well as problems in accessing inputs. Among these challenges, the major obstacle identified is access to finance. The World Bank Enterprise survey (2013), reports that almost 50% of the non agric SMEs in Ghana identified access to finance as the number one major obstacle in their business. According to Mensah (2004), the undeveloped financial sector in Ghana coupled with high and rigid interest rates, and the lack of institutional and legal structures to facilitate the management of SME risk are the main problems to SMEs in Accessing finance. Perception of risk and high transaction cost has also affected SMEs in accessing lager sized and longer term loans from formal banks. These hitches among others forces SMEs to rely on savings and sometimes on informal finance which mostly has higher interest rates (Osei-Assibey, 2010).

The World Bank Enterprise survey (2013) reported that aside the financial challenges, they are also confronted with issues such as political instability, tax rates, access to land, electricity, tax administration, transportation, corruption, and practices in the informal sector were identified as some of the constraints to non-agricultural SMEs in Ghana.

2.11 Financial Inclusion in Ghana

In Ghana, efforts have been made by the government and the private sector to improve the level of financial inclusion. Over the years, the Bank of Ghana has made many reforms in the banking sector aimed at increasing the level of financial inclusion in the country. For

instance, the Government of Ghana signed the "Maya Declaration" binding to specific goals in 2012. The goals include:

- Revise the payment system strategy by year end 2012.
- Improve financial literacy by end year 2012
- Implement interoperability in the mobile financial services sector.
- Revise the branchless banking to promote an enabling environment to achieve 70% financial inclusion by 2017.
- Improve consumer protection

The Bank of Ghana in 2008 issued the branchless banking regulation aimed at bringing more Ghanaians into the banking system. This regulation intends to increase the accessibility of services by allowing the use of agents and requiring systems to be interoperable to make sending money across networks easy.

The new agent and e-money regulation was again issued by the Bank of Ghana in July 2015. The new agent e-money regulation marks a sweeping overhaul that establishes a best practice digital financial service framework. By this regulation, non-banks are permitted to own and run e-money businesses. This will boost investment in the space and create a dynamic market of diverse providers who will compete and offer the best and most innovative services. This regulation also provides sizeable benefits to customers as it minimizes barriers to access and strengthens supervision and consumer protection.

These reforms and strategies by the Central Bank of Ghana brought a rapid expansion in the banking sector with the number of licensed banks increasing from 3 (in the early 1990s) to 35 in 2018. Licensed Microfinances (MFIs) which were not in existence in the 1990s numbered 564 in 2017. The number of Non-Bank Financial Institutions (NBFIs) and Rural and

community Banks increased from 60 and 138 in 2014 to 68 and 140 in 2016 respectively. Automated Teller Machines (ATMs) has increased from 923 in 2014 to 1,928 in 2016.

2.11.1 Microfinance Subsector

The concept of Microfinance was formalized in Ghana after the enactment of the non-bank financial Institutions (NBFIs) act (1993) Act (328). The institutions that work under the NBFIs law comprises of:

1. Savings and Loans Companies
2. Leasing Companies
3. Insurance Companies
4. Credit unions and Credit Reference Bureau
5. Hire purchasing Companies
6. Remittance Companies
7. Discount Housing
8. Finance Houses
9. Social Security and National Insurance Trust (SSNIT)

According to the Bank of Ghana (BoG), Microfinance (MFI) involves the provision of financial services and management of small amount of money through a variety of products and a system of intermediary functions that are aimed at low income clients. Some of the services provided by the MFIs include Microcredit, Savings, Insurance, Money transfer services etc. The need for microfinance was thus enormous as far as financial inclusiveness is concerned. Microfinance therefore is unquestionably one of the critical dimensions of the broad range of financial tools for the poor in society in Ghana. According to the 2003 IMF country report on Ghana, “weaknesses in the financial sector that restrict financing

opportunities for productive private investment are particular impediments to business expansion in Ghana. Microfinance consequently has the potential to reduce poverty by bringing a significant improvement in the lives of the active poor who are mostly women.

2.11.2 Mobile Money (MoMo)

A well-functioning payment system is vital for ensuring safety, stability, and soundness in the financial system over the world. In Ghana one of the fastest growing payment system is the use of Mobile Money (MoMo). The increased use of MoMo has helped integrate the excluded into the formal financial system thus deepening financial inclusion and promoting a cash-lite economy.

The Global Systems for Mobile Communications (GSMA) in 2013 defined Mobile Money as a transformational service that uses ICT and non-bank retail channels to extend the delivery of financial services to clients who cannot easily be reached profitably with traditional branch-based financial services.

In Ghana, Mobile Money may be described as electronic cash backed by equivalent amount of the Bank of Ghana notes and coins stored using the Subscriber Identification Module (SIM) in a mobile phone as an identifier ((Bank of Ghana, 2017). Mobile Money is issued by Mobile Money Operators (MMOs) who keep the electronic account on the SIM in the mobile phone for the users of MoMo. An example of Mobile Money service is electronic-wallet. This allows the transfer of value from one person to another, payment of goods and services, bills and salaries, savings and micro-insurance.

According to the bank of Ghana, the volume of transactions carried on Mobile Money recorded a 737.4% growth rate from 2012 to 2016. In 2018, the monetary value of

transactions carried out on mobile money platforms was 233 billion cedis, (Bank of Ghana, 2018). This shows a 43% increase from 155 billion cedis in 2017.

CGAP Annual Report (2016) reveals that, the number of people with mobile money account increased from 3million to 7million people in June 2016. Also The number of active mobile money agents has risen from 20,722 in 2014 to 199,000 in 2017 reaching 393,000 as at December 2018.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This chapter reviews current literature on firm performance and financial inclusion and also, the theories that underpins the study. The chapter is divided into twelve subsections with the first subsection as the introduction. Section 3.2 explains the theoretical framework of the study. Sections 3.3, 3.4 and 3.5 discusses the concept of enterprise performance, determinants of enterprise performance, and gender and enterprise performance respectively. Performance measurement in SMEs is discussed in section 3.6. The concept of financial inclusion, its definition, dimensions, benefits and barriers are discussed in sections 3.7, 3.8, 3.9, 3.10 and 3.11. Finally, gender and the financial inclusion of SMEs is discussed in sections 3.12.

3.2 Theoretical Framework

There are three main theories that underprop this study. With respect to firm performance, the study will employ the resource based view theory of firm performance. The social and liberal feminist theory will also be used to expound gender difference in the performance of firms.

3.2.1 Theory of Firm Performance: Resource Based View Theory (RBV)

The Resource Based View theory of the firm is one of the major theories in firm performance and it is credited to Barney (1991). He classified the determinants of business success into internal and external factors. Although both internal and external factors are important, the RBV theory proposes that differences in enterprise performance are mainly determined by the inherent endowment of a firm's resources, with market structure and industry attributes

playing a relatively small role (Hawawini et al., 2003; Masakure et al., 2008). The RBV theory contends that the resources owned by an institution is key in determining the competitive advantage of an institution. It therefore explains the internal sources of a firm's sustained competitive advantage. (Kraaijenbrink et.al, 2010, p.349).

According to Barney (1991), the resources of the firm that can create competitive advantage must possess the following attributes;

- Valuable

  The resource should enable the firm conceive strategies that can improve its performance and efficiency.

- Rare

  The valuable resource should be possessed by a small number of competing firms.

- Perfectly inimitable

  The valuable resource should not be easily imitated.

- Non-substitutable

  The valuable resource should not be easily replaced.

The main notion of the RBV is that if a firm acquires and controls resources with these attributes, it can attain continued competitive advantage and ultimate superior growth and performance as long as it has the capacity to absorb and apply them (Barney, 1991). Resources that can generate sustained competitive advantage include assets, capabilities, organisational processes, information and knowledge among others

For a firm to access these resources, financing is very important. Financing is very vital to the operations of SMEs. Without sufficient financing, the operating power of the firm as well as its would-be growth is at risk. The performance and growth of SMEs is subject to the type and amount of resources made accessible to the enterprise. (Covin & Slevin, 1997; Wiklund

& Shepherd, 2003). Existing literatures on entrepreneurship and SMEs identify lack of finance as one of the causes of entrepreneur's inability to achieve their objectives and owner's/ managers chances to take action (Pissarides, 1999; Hsu & Chen, 2000; Heshmati, 2001; Beck, Demirgüç-Kunt, & Maksimovic, 2005; Hutchinson & Xavier, 2006; Malo & Norus, 2009; Robson & Obeng, 2008; Coad & Tamvada, 2012; BIS 2013). Been Financially included will give firms access to finance which will improve their quest of achieving resource intensive growth as loose resources can be tailored to new strategies and practices which in turn can allow the firm to pursue new growth opportunities (Penrose, 1959).

The RBV theory suggests the idea of firm diversity (Barney, 1991). Contrary to existing literature, the RBV theory proposes that firms with similar external characteristics, market conditions and similar factors of production will still experience differences in performance because of the existence of heterogeneous internal resources. Previous works put forward by Scholars suggests that the internal capabilities of the firm should be scrutinized to explain firm performance (Shelton, 2005) as the configuration of a firm's capabilities enables the firm to efficiently pursue its growth. (Brush and Chaganti ,1999). With respect to SMEs, decisions on the production process, training, financing among others lies solely on the entrepreneur. This allows us to factor in entrepreneurial characteristics in addition to the firm level characteristics and market conditions in examining firm performance.

3.2.2 Differences in Firm Performance: Gender Dimension

Mirchandani (1999) emphasized on the essence of conducting research on SMEs based gender because it enables them to adopt theories that suitably reflect gender perspectives. In that line, this study discusses briefly two theoretical perspectives on gender, that is the Liberal Feminist Theory and the Social Feminist theory. Several literatures on these theories

have argued to incorporate the extremes of feminist theory (Weeks & Carter, 2002; Black, 1989). This implies that, gender differences in the various areas of entrepreneurship which tends to affect performance of SMEs is to be expected.

3.2.2.1 Liberal Feminist Theory

Liberal feminism has its foundations in the works of Mary Wollstonecraft (1759-1797), Jean-Jacques Rousseau (1712-1778), John Locke (1632-1704), Harriet Taylor Mill (1807-1858), and John Stuart Mill (1806-1873) among others. Liberal feminism lay emphasis on equal rights and liberties for all individual (men and women) thus downplaying sexual differences. Liberal feminism considers opportunity in having individual and political self-governance, that is, carrying on with an actual existence based on one's very own preference and being a co-author of the conditions under which one lives. They hold the view that, specific empowering conditions ought to be adequately present for one to practice his/her own autonomy. The conditions include:

- Being free of savagery and the danger of brutality
- Being free of the points of confinement set by paternalistic and moralistic laws
- Having access to choices Among others

They defend the equal rationality of sexes and plays more accentuation on the significance of constituting social, familiar and sexual roles in a way that advances ladies' autonomous self-satisfaction. Liberal feminism stresses on the similarities between men and women rather than the average differences between them, attributing most of the personality and character differences between the sexes to the social construction of gender. liberal feminism emphasizes on the similitudes between women and men as opposed to the normal contrasts

between them, ascribing the vast majority of the identity and character contrasts between the sexes to the social development of gender.

3.2.2.2 Social Feminist Theory

Social Feminist theory hypothesizes that, women and men are diverse in numerous qualities because of various socializing processes concerning to their observed sex. Social feminist regards men and women as two distinct groups, each having substantial and similarly compelling yet different mind sets and thinking. As indicated by Fischer et al, 1993, the contrasts among men and women experiences which are contended to start from childhood are probably going to result in basic different ways of seeing the world. Thus experiences of the two groups are similarly substantial bases for developing Knowledge and Organizing Society. In opposition to the Liberal Feminist Theory, the Social Feminist theory holds that women and men are distinctive because of contrasts in the socialization processes (Smircich & Calas, 1989). Women innately have diverse dispositions towards risks and growth, and accordingly they seek after different objectives (Verheul et.al, 2008). Because of their diverse attitudes towards hazard and development, women have adopted an alternate way to deal with business activities, consequently bringing about private size and lower extension rates (Niefert & Gottschalk, 2012).

3.3 Concept of Enterprise Performance

One of the issues deliberated extensively in empirical and conceptual literature in small and medium sized businesses is the issue of performance. (see Watson, Newby & Woodliff, 2000; Rodsutti & Swierczek, 2002; Curran, Kitching, & Lightfoot, 2000). According to Etzioni,

1964, the performance of firms especially SMEs should be looked at in relation to more than one goal. However, the goals against which performance should be evaluated and from whose viewpoint it should be established remains vague in literature.

For large sized firms, because owners are separated from managers, their main goal is to maximize profit (measured by the returns on assets or returns on investment) thus affirming the organizational theories which states that, the main goal of the firm should be profit maximization. This is contrary to the situation with the Small and medium sized firms as research promotes non -financial goals for SMEs. This gives a better assessment of SMEs performance instead of the profit maximization used by the large firms.

For SMEs, one major characteristic is that the owner of the business is also the manager, (Popescu et al,2014) The owner controls and manages the business, therefore dictating the goal and influencing its achievement (Watson et al, 2000). The main goal of most SMEs according to MacMillan and Low (1991) is to ensure continued existence and steadiness of the firm. Also, customer satisfaction, market share, employment of family members among others are some of the goals pursued by SMEs (Glancey, 1998). The goals of the firm especially with the SMEs should therefore be identified and understood in assessing its performance.

3.4 Determinants of Enterprise Performance

The main factors that affect the performance of enterprises according to Bosworth (2005) are discretionary investments and risk. Discretionary investments, which include trainings, advertising, and research and development, plays a central role in determining the performance of firms. These are related to the organization of the enterprise given the environment in which the firm operates. Also it is impossible to talk about the determinants

of firm performance without considering risk/uncertainty. Risk is attached to discretionary investment making it impossible to talk about enterprise performance without considering risk. Risk therefore affects the level of discretionary investment which further affects the performance of the firm. Several studies have shown that women are more risk averse relative to men (Shane &Kepler, 2007; Uri & Croson, 2009) and this tends to influence the performance of women-owned SMEs negatively, resulting in gender performance gap (see Watson et al, 2009). Studies have shown that there is insignificant difference in performance of women-owned SMEs and that of men after successfully controlling for risk (Robinson &Watson, 2003; Robb &Watson, 2012; Boohene et, 2008).

In Ghana, previous studies on the gender performance gap of SMEs did not account for risk making it difficult to ascertain if the gender gap in SMEs performance still exist after controlling for risk in Ghana. Previous studies have classified factors that determines firm performance into two broad areas; (i) micro-level factors (ii) macro-level factors (Leicht and Kalleberg, 1991; Bracker & Keats, 1988).

- Micro- level Factors – These are factors that stem from the internal environment of the firm. They include firm's resources strategies employed, psychology and demographics of the owner of the firm.
- Macro-level Factors – These are factors related with the exterior environment of the firm that determines the firm's performance. It comprises the legal and political conditions, level of financial development in the country and the socio cultural context in which the firm operates.

In most developed countries, existing literature identifies managerial capabilities, educational attainment of labour, innovation and absorption of technology, external shocks, financial markets and the market structure as relevant determinants of enterprise performance

(Moretti, 2004; Mano et al, 2012; Bernard et al, 2010; Söderbom & Rijkers, 2013). In addition, enterprise characteristics such as size, age, location, level of human capital, level of social capital, access to capital and appropriate technology etc. are reported in literature as having impact on the performance of SMEs.

Gibrat's law of proportional growth states that all firms (regardless of size) face the same probability of growth (Gibrat 1931). He argued that, the growth or performance of a firm is affected by the interaction of various factors (risk, political trends) rather than the size of the firm. This is contrary to the model proposed by Jovanovic in 1982. To Jovanovic, as a firm expands over time, the managers learn more about their efficiency. They realize their efficiency does not reflect or is below their true efficiency level and the efficiency level of the firm leading to increased investment in human capital (Jovanovic 1982; Ericson & Pakes, 1989). This suggests an inverse relationship between firm growth, age and size. However empirical literature reports that, the negative relationship between enterprise size and growth tends to diminish as the firm expands (Goedhuys & Sleuwaegen, 2000; Liedholm, 2002; Mead & Liedholm, 1998).

Hired labour, formal registration of firms, human capital enhancement, and access to technology in empirical literature have been proven to have a positive impact on enterprise performance (Agarwala, 2003; Daniels, 2003; Akoten & Otsuka, 2007; Liedholm & Mead ,1998; Masakure et al, 2009; Deininger et al, 2007) However Literature is not clear as to whether access to finance through formal financial institutions necessarily translates into improved enterprise performance (Akoten et al., 2006; Daniels & Mead, 1998; Loening et al., 2008). The level of capitalization of most SMEs proposes that they have a limited demand for credit and that the claims that the level of access to formal credit as a limiting constraint may be exaggerated (Masakure, et al., 2008; Nichter and Goldmark, 2009).

3.5 Gender and Enterprise Performance

The reproductive role and the marginalization of women in economic activities have been widely emphasized and well documented. Women perform three roles in society; (i) productive role (ii) reproductive role and (iii) community management roles but over the years only the reproductive role has been emphasised relative to the productive role (Moser, 1989). The productive role has been controlled by men. Of late, women have taken up their productive role. Women contribute significantly to family labour in the subsistence economy. They do most of the cultivation although there exist some variations across countries (Boserup, 1986). Over the years, with an increase in population growth and pressure on land resources, the subsistence economy is no longer able to produce all the household requirements leading to women becoming actively involved in industry and commerce to generate extra income to support their households. Aside increase in population growth, other factors that have promoted women's participation in the industrial and service sectors in Africa are the changes in entrepreneurial patterns (Gaidzanwa ,1993) and the creation of women's awareness in their contribution to economic development. As a result of economic recessions in Africa, the entrepreneurial patterns have changed. For instance, the recessions of 1970s and 1980s, inflation and devaluation of African currencies on the world market has worsened the living standards of the poor pushing the population especially women into intensified income generating activities. Also, through the awareness created by Non-governmental organizations and donor agencies on the contribution of women to economic development, most women have prised the notion that they are capable of being independent if they involve in income making undertakings.

Although women are now active in their productive role, the empirical literature shows that their performance compared to the men is low (Khalife & Chalouhi,2013; Mead & Liedholm, 1998; Daniels, 1999). Their low performance can be attributed to gender differences in access

to and control of resources as well as gender difference in start-up conditions (Driga & Prior, 2010; Von Masson,1999). Also, societies continue to view men as breadwinners, whereas women are expected to accomplish household duties such as taking care of the family (Chinomona & Maziriri 2015). Women SME owners, therefore experience a 'dual burden' daily (Singh 2012). To that effect, women SME owners are more likely to have lower motivation to achieve high performance, compared with their men counterparts, as their time has to be divided between work and home (Hundley 2001). This has a negative impact on women's entrepreneurial efforts, and more importantly, the ability to gain business-related experience, which is crucial for better firm performance (Klapper & Parker 2011). This has worsened the gender inequalities in performance of SMEs.

Loscocco et al (1991) also observed that differences in socialization, training and other experiences of men and women leads to different outcomes in performance of men and women owned SMEs. A study in the United States by Brush et al (2006) reported that the average revenue of women owned firms is about 26 % of the revenue made by men owned firms. Likewise, in Ethiopia, Rijkers and Söderbom (2013) observed that men owned enterprises were more productive than their women counterparts.

Evidence suggests that women owned enterprises grow more slowly than the men owned enterprises because the later are more oriented towards growth than the former and that is reflected in the better performance of men owned enterprises (Sleuwaegen & Goedhuys, 2000; Brush, Singh, Muhammad &Reynolds, 2001; Boden & Nucci, 2000; McPherson, 1996).

However, other studies (see Rosa & Sylla, 2016) suggest that taking account of other explanatory factors such as age, sector, enterprise size and the educational attainment of owner, the performance of women owned enterprises match up with that of men owned

enterprises. It should be noted that, although women owned enterprises perform lower than their men counterparts, they tend to be more stable and have higher rates of survival (Johnson & Storey, 1993; chtcco, Robinson, Hall & Allen, 1991; Singh, et al., 2001).

3.6 Performance Measurement in SMEs

The study of performance measurement started in the mid I980s. Traditionally, financial measures and operational levels are used to access firm performance. Growth in employment (Daniels & Mead, 1998; McPherson, 1996), productivity growth (Chappelle & Plane,2005) and financial performance of enterprise (see Daniels, 1999, 2003; Daniels & Mead, 1998; Fafchamps & Gabre-Madhin, 2001; Masakure et al., 2008, 2009) are the common traditional measures of performance adopted by most SMEs. This has been criticised on the grounds that it does not support the organizational development and management of big companies hence the creation of multidimenional and balanced models to measure firm performance (Sinclair and Zairi 2000).

It has been revealed through literature that small and medium sized enterprises differ from large enterprises especially in areas of innovation, uncertainty and evolution (Storey 1994 Welsh & White 1981) making it necessary to adopt different measurement models in accessing their performance. There is greater external uncertainty of the environment in which SMEs operate, However, its motivations and actions is very consistent (Storey 1994; Welsh and White 1981). Performance measurement models employed by SMEs should therefore be geared towards the management of uncertainty, to improve innovation and to sustain evolution and change processes.

Empirical and theoretical literature on performance measurement SMEs is scanty in developing countries. Most of the studies conducted in this area are found in the advanced

countries such as Australia, Finland, Denmark and United Kingdom (Laitinen 2002; Holtari & Rantanen, 2000; Jarvis & Collis 2002; Mills &Neely, 1993; Jarvis et al., 2000; Hvolby and Thorstenson 2000). Based on existing literature, some common characteristics have been identified with the measurement of performance in SMEs. They are briefly discussed below;

Studies show that most SMEs do not use any performance measurement model and the few that employ it uses it wrongly. Most often than not, SMEs implement only parts of a general model or they modify the models without ample consideration of the changes made. They eliminate some aspect without analysing the characteristics of the performance model and the company its meant for (Tenhunen et al. 2001). This approach is incomplete and therefore does not consider the specific needs of SMEs. For instance, it has been proven through empirical studies that, the balanced scorecard model of performance measurement is not suitable for SMEs (Hvolby and Thorstenson 2000; McAdam 2003).

SMEs rarely employ a Holistic approach to performance measurement. A study by Rantanen & Holtari (2000) showed that, most small and medium sized enterprises are not aware of integrated measurements of performance thus they do not usually implement such. Aside financial performance, innovation, work environment, human resource, research and development, training etc. are rarely measured in accessing performance of SMEs.

The performance measurement approach employed by SMEs is mostly informal and not based on any predefined model. Performance measurement in SMEs is characterized by poor alignment between strategy and measures (Addy et al. 1994; Chennell et al. 2000; CIMA 1993; Hudson et al. 1999). Planning is usually absent or limited to the operation levels in SMEs because that is what performance measurement is usually based on.

Furthermore, it has been proven through research that some specific characteristics of SMEs are the factors that influence performance measurement in SMEs. Such characteristics

include; limited capital resources, managerial capacity, misconception of performance measurement, and lack of human resource (Barnes et al. 1998; Hudson et al. 2000; Hvolby and Thorstenson 2000; Hudson et al. 2000; McAdam 2000). Performance measurement approaches adopted by SMEs must respond to their specific needs. It must be dynamic and flexible and at the same time structured such that it favours activity planning (Hudson et al. 2001; Hudson and Smith 2000; Barnes et al., 1998).

3.7 Concept of Financial Inclusion

Financial inclusion has increasingly gained prominence among academicians, policy makers and researchers because of its contribution to economic and financial development, while at the same time fostering a more inclusive growth and greater income equality. Over the past decade, most countries have achieved higher levels of growth thereby alleviating more than a million people out from chronic poverty (United Nations, 2013). This growth was mainly driven by the expansion of financial sector and infrastructure in these nations. The expansion of the financial institutions helped many to patronize in financial products and risk management instruments to support their participation in a modern market economy.

The benefits of financial inclusion have moved many countries and development institutions to focus on achieving financial inclusion as a strategy for growth and poverty alleviation. For instance, the G20 has established the Global Partnership for Financial Inclusion (GPFI) to develop principles and share experience in achieving an inclusive and sustained growth globally. According to the World Bank's 2014 Global Financial Development Report, two thirds of regulatory and supervisory agencies are now mandated to heighten financial inclusion. For instance, the Digital for inclusion (D41) programme in Ghana as at December

2015 had achieved a 41% increase in the level of financial inclusion in the country (Zetterli, 2015).

In December 2003, four clear goals were set for financial inclusion in relation to a statement by the UN secretary General, Kofi Annan on the crises of financial exclusion. The goals include;

1. Access to general banking services including credit, leasing, mortgages, insurance, pensions, and money transferring at a reasonable cost.
2. Regulation, internal and external, of financial institutions to encourage sound policy and inclusion.
3. Sustained investment in the financial institutions of the world in order to continually provide access to financial services in the future.
4. Competition in the banking arena in order to provide many alternatives for those excluded from traditional banking.

3.8 Definition of Financial Inclusion

To achieve progress in the area of financial inclusion, there is the need for clarity in its definition to enable a common vocabulary to support the development of its goals. Financial inclusion, globally, has taken on a multitude of meanings ranging from it been simply regarded as access to a local bank account to expanded definitions comprising a variety of measurements that centre on individual's patterns of behaviour and psychological tendencies.

According to Deb & Kubzansky (2012), financial inclusion is when all individuals have access to appropriate financial products and services which includes people having the skills, knowledge and understanding to make the best of those products and services. Financial

Inclusion is the combination of financial access, financial capability and engagement with the financial system.

To Demirgüç-Kunt and Klapper, (2013) the definition of financial inclusion is gradually moving towards the share of the population that uses formal financial services.

On a broader and a more general level, Financial inclusion can be defined as making financial services available to everyone in the society especially, the poor and marginalized who are mostly excluded from the financial services.

3.9 Dimension of Financial Inclusion

The financial inclusion data working group of the alliance for financial inclusion with the aim of defining a more complete concept of Inclusion agreed on three main dimensions of financial inclusion; access, usage and quality.

- ACCESS: availability of formal, regulated financial services with respect to affordability and physical proximity.
- USAGE: actual usage of financial services and products in terms of regularity, frequency and duration of time used
- QUALITY: products are well tailored to clients' needs

3.10 Benefits of Financial Inclusion

The World Bank views financial inclusion as a major factor that can help alleviate extreme poverty and lift shared growth and prosperity. The Bank has therefore put forward a global goal to reach Universal Financial Access (UFA) by 2020.

Financial inclusion eases daily living and helps families and businesses plan for long term goals and unforeseeable occurrences. When people are included in the financial sector, they are probable to get access to financial services such as credit and insurance. This helps entrepreneurs to start and expand businesses, manage risk and other financial shocks which can help promote the growth of businesses especially SMEs and enhance the welfare of people in general. In addition, financial inclusion has been identified as one of the major mechanisms by which eight (8) of the seventeen (17) Sustainable Development Goals (SDGs) will be achieved. These includes SDG1 (eradicating poverty), SDG2 (ending hunger, achieving food security and promoting sustainable agriculture), SDG3 (providing good health and well-being), SDG5 (achieving gender equality and economic empowerment of women), SDG8 (promoting economic growth and jobs), SDG9 (supporting industry innovation and infrastructure), SDG10 (reducing inequalities) and SDG17 (revitalize the global partnership for sustainable development).

In the nutshell, financial inclusion brings the unbanked population into the formal banking system, channels their savings, encourage entrepreneurial drives by making credit available and thus promote sustained and inclusive growth.

3.11 Barriers to Financial Inclusion

A number of factors have been recognized as barriers to attaining financial inclusion. The common and major obstacle is lack of enough money. The Global Findex Survey 2013 report that 65% of the unbanked population claim they do not have enough money to open an account. According to Demirgüç-Kunt and Klapper (2013), lack of access and necessary documents required to own an account are other factors that affect the level of financial inclusion. Most people desire to be financially inclusive but they are restrained by lack of

access to banks. This makes holding an account expensive as large distances have to be covered to the nearest banks. About 25% of the population claimed owning an account is expensive (Global Findex Survey, 2013). Also, due to lack of documentation, banks are left with no other reliable way to track individuals as well SMEs credit; they therefore resort to lending at higher interest rates (World Bank, 2013).

In addition, distrust with the banking system, religion and a member of a family been 'banked' are other demand side factors that constraints financial inclusion. Women tend not to open an account because a member of the family already has an account with a bank, a product of overlying social norms. Also due to failure of some financial institutions, an aura of uncertainty and lack of confidence has been created (Demirgüç-Kunt & Klapper ,2013).

3.12 Gender and Financial Inclusion of SMEs

Women play pivotal roles in the family and the society, however development processes have bypassed them and women still live in an unequal world. This inequality is also realized in the area of financial inclusion.

Globally the percentage of women who are financially included is less than that of men. Empirical studies show that women's financial literacy rate and confidence is lower than that of men. Their low financial knowledge affects their investment decisions such as investing in the stock market, borrowing at lower cost etc. (Lusardi and Tufano, 2015). This contributes to the low level of financial inclusion among women.

Significant progress has been made to enhance access to and usage of formal financial services among women and the poor in society, but there still exists barriers such as legal constraints, technological barriers and cultural barriers. According to World Bank's Global Findex Database, there was a 13% increase in the percentage of women in developing

countries with a formal bank account. Though it is a good sign in relative terms, there remains a considerable room for improvement in absolute terms as half of the women in developing countries remain unbanked. As at the end of 2014, the global financial inclusion gender gap in developing countries was 9% (Global Findex database, 2014).

Although it is reported that women are less included than men, existing empirical literature on gender and financial inclusion is different across countries. For instance, a study in 29 developing countries by Demirgüç-Kunt (2013) found significant gender gaps in the ownership of accounts and usage of savings and credit products. After controlling for some individual characteristics such as income, education, employment status, age and rural residency, gender remained statistically significant related to financial inclusion (usage of financial services). The analysis also reveals that legal discrimination against women and gender norms explains some of the cross country variations in the access to finance for women. In countries where women face legal restrictions in their ability to work, head a household, choose where to live, and receive inheritance, women are less likely to own an account, save and borrow relative to men. Also, the manifestation of gender norms such as the rate of early marriage for women and violence against women also contribute to the gender differences across countries in the use of financial facilities.

On the other hand, In Indonesia, more women are included than men where as in countries such as South Africa, Bolivia, among others, the percentage of women with a bank account (financially included) is equal to that of men. In Ghana, more men are included than women (Global Findex Database,2017)

The cross country variations in the level of financial inclusion across gender results in differences in the performance of male and female owned SMEs as research reports that,

participation of individuals in the formal financial system helps them to better manage risk, invest in business and fund large expenditures such as education (Holloway et al, 2017).

Earlier studies on SMEs identifies that most SMEs are Sole proprietorships and even with those that are not, the owners are mostly the managers, thus the level of financial inclusion of the individual owner/manager tend to affect the level of inclusion of the business making gender a significant determinant of financial inclusion of SMEs. By investigating the effect of financial inclusion on the performance of men and women owned SMEs, this paper will ascertain the relationship between financial inclusion across gender and the performance of SMEs in Ghana. The low participation of women in the formal financial sector therefore hinders economic growth as it affects the performance of women owned SMEs.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter explains all the methodologies that were employed in this study. Sections 4.2 discusses the empirical methodology adopted for this study. Section 4.3 focuses on the Data used for the study and the last section, section 4.4 describes the various variables used.

4.2 Empirical Methodology

For the purpose of answering the objectives of this study, the ordinary least square estimation technique, the Unconditional quantile regression (UQR) technique, Oaxaca and Blinder decomposition technique and the Unconditional Quantile decomposition techniques will be employed. The OLS and UQR techniques will enable us answer the 1st and 2nd objectives of investigating the effect of financial inclusion on the performance of men and women owned SMEs at the mean and at selected points along the distribution and also to estimate the gender performance gap of SMEs. The decomposition methods will allow us to answer the 3rd objective which is to examine the contribution of financial inclusion to the gender performance gap.

4.2.1 Ordinary Least Square (OLS) Estimation Technique

The ordinary least square estimation technique enables us to ensure consistency and unbiasedness in our study. The OLS allows us to estimate the impact of financial inclusion and on men and women owned SMEs performance at the mean of the distribution. Firstly, we

run a linear regression equation that is equation (1), for the pooled data set. This will inform us of the effect of financial inclusion and other covariates on the performance of SMEs.

$$Y_{it} = X_{it}B_{it} + \varepsilon_{it} \quad (1)$$

Where, Y_{it} is the performance of SMEs measured as profit

B is a vector of the parameters.

X is the individual and enterprise covariates that determine SMEs performance and

ε_{ji} is the random error term.

To answer the first objective of investigating the effect of financial inclusion on the performance of women and men owned SMEs, two linear regressions (equations (2) and (3)) are run separately for the two groups (i.e. men and women owned SMEs). This gives us the effect only at the mean.

$$Y_{0i} = B_0X_{0i} + \varepsilon_{0i} \quad (2)$$

$$Y_{1i} = B_1X_{1i} + \varepsilon_{1i} \quad (3)$$

Where, Y_i is the performance of SMEs measured as profit

B is a vector of the parameters.

X is the individual and enterprise covariates that determine SMEs performance.

ε_{ji} is the random error term.

The subscript 0 represents men individual and 1 represents women individual.

4.2.2 Unconditional Quantile Regression (UQR) Technique

To answer the second part of the first objective, we employ the UQR technique. Because of subsequent differences in the effects of financial inclusion and the other covariates at the mean using the OLS technique, it becomes more appropriate to explore the impact of financial inclusion and the other covariates along the entire distribution and not limited to the mean only.

The Unconditional Quantile Regression Technique is credited to Firpo et.al, 2009. The UQR allows the estimation of the impact of changing the distribution of explanatory variables on the marginal quantiles of the outcome variable. The UQR therefore explains the impact of the exogenous factors to be explained at diverse points of the distribution. The fundamental principle of the UQR is to estimate a Re-centered Influence Function of the interested variable which is SMEs performance in our case, on the covariates by estimating the partial impacts of fluctuations in the distribution of the covariates on the unconditional quantiles of SMEs performance.

The UQR is built on the Re-centered Influence Function (RIF) which is also premised on the notion of the Influence Function (IF). The IF of a distributional statistics displays the effect of an individual observation on that distributional statistic. The IF is specified below

$$IF\big(y; v(F)\big) = \lim_{\varepsilon \to 0}\left(\frac{[v(1-\varepsilon).F+\varepsilon.\delta y]-v(F)}{\varepsilon}\right), 0 \leq \varepsilon \leq 1 \qquad (4)$$

Where F represents cumulative distribution of the outcome variable

ε: δy represents the distribution that puts weight at the value y.

The expected value of the IF equals zero.

Adding back the statistic to the influence function gives us the RIF. The RIF is an estimator ν with a probability distribution F at point y, which is obtained by adding the statistic ν(F) to

the influence function. The expected value of the RIF is equal to the original distributional statistic v(F). The, RIF is represented as:

$$\text{RIF}=(y; v(F) = \text{v(F)} + IF\big(y; v(F)\big) \quad (5)$$

If the statistic of interest is defined as the τth quantile and estimating the density functions for each quantile of interest using the kernel density technique, the RIF at a specified quantile is given as:

$$RIF(y; q_\tau) = q_\tau + IF(y; q_\tau) = q_\tau + \frac{\tau - Y\{y \leq q_\tau\}}{f_y(q_\tau)} \quad (6)$$

where, qτ is the τth quantile of the unconditional distribution of the outcome variable

Y; $f_y(q_\tau)$ captures the probability density function of Y evaluated at the τth quantile, estimated using kernel density method

$\{y \leq q_\tau\}$ is an indicator function determining whether the outcome variable falls below the τth quantile or otherwise.

Estimation of RIF regression at the τth quantile comprises the estimation of $\widehat{q_\tau}$ using the conditional quantile regression technique and employing the kernel density approach to estimate, the density estimator (the $\widehat{f_y}(\widehat{q_\tau})$) of the outcome variable at $\widehat{q_\tau}$. Using OLS, the transformed outcome variable is regressed on a set of covariates with expected value of the influence function equal to zero. The corresponding distributional statistics are therefore equal to the expected value of the RIF for the τth quantile:

$$q_\tau = E[RIF(y; q_\tau)] \quad (7)$$

The distributional statistics of the outcome are represented as the conditional expectation of the RIF given the set covariates:

$$q_\tau = E[RIF(y; q_\tau)/X] \quad (8)$$

Assuming the law of iterated expectations which states that, the expectation of the conditional expectation is the unconditional expectation, the distributional statistics of performance of SMEs is defined in terms of the conditional expectation. The unconditional or marginal quantile is given as:

$$q_\tau = \int E\left[\frac{RIF(y;q_\tau)}{X}\right] df(X) \qquad (9)$$

The effect of the covariates on the distributional statistic of SMEs performance is obtained by integrating the conditional expectation of the distributional statistics through the use of regression techniques. The expected value of the error term is approximated to zero. This equates the expected value of the true conditional expectation to the linear function of the RIF regression of the distributional statistics. The RIF is similar to standard regression estimation but the dependent variable Y is replaced with the RIF of the statistic of interest as shown in equation (10).

$$E[RIF(y;q_\tau)/X] = XB + \varepsilon \qquad (10)$$

This makes it easier to employ OLS techniques in estimating the RIF and makes it simple and meaningful. Therefore, applying OLS and UQR techniques, the study examines the effects of financial inclusion on the performance of SMEs at selected quantiles along the distribution using Equation (1).

4.2.3 Decomposition Methods –OAXACA (1973) and Blinder (1973) Decomposition Technique.

The Oaxaca and Blinder (OB) decomposition technique is a methodology employed to study group differences in any continuous and unbounded outcome variable. It is mostly used in the labour market and discrimination literature (for instance see Stanley & Jarrell, 1998;

Weichselbaumer & Winter-Ebmer, 2005). In labour economics, the OB decomposition technique is mostly used to decompose mean differences in log wages based on linear regression models in a counterfactual manner. The OB methodology divides the wage differential between two groups into explained and unexplained parts. The explained part shows the differences in wage that is due to productivity characteristics such as education, work experience, etc. whiles other factors that contribute to wage differential other than productivity characteristics are captured by the unexplained part. Although this methodology is extensively used in labour economics, it can however be used in other fields of study.

For the purpose of this study, the Oaxaca Blinder decomposition technique will be used to examine the differences in the performance of women and men owned SMEs and the contribution of financial inclusion to this gender performance inequality. The OB decomposition technique allows us to know the factors that contribute to the gender differences in the performance of SMEs that are due to differences in the mean level of observable characteristics and those due to differences in the returns to these characteristics under the hypothesis that both men and women have the same characteristics. The former is referred to as the explained/endowment effect and the latter is referred to as the coefficient effect.

The OB decomposition technique is based on the following assumptions;

- The two groups/events are mutually exclusive
- The relationship between the dependent and the independent variables are linear
- The relationship between the dependent and independent variables are additive.

The Oaxaca Blinder decomposition technique will therefore enable us examines the factors that contribute to the gender performance gap and in particular determine the contribution of Financial inclusion to that gap.

In applying the OB decomposition technique, first we specify a linear regression equation as represented in equations (2) and (3). Using OLS to estimate equation 2 and 3, $\widehat{B}_1$, $\hat{B}_0$ are obtained. Secondly, equation (3) is subtracted from equation (2) as given in equation (11) to get the mean performance of men and women owned SMEs.

$$\hat{Y}_1 - \hat{Y}_0 = \hat{B}_1(\bar{X}_1 - \bar{X}_0) + \bar{X}_0(\hat{B}_1 - \hat{B}_0) + \varepsilon \qquad (11)$$

Depending on the reference group used, equation 11 can be specified as;

Men Reference group

$$\hat{Y}_1 - \hat{Y}_0 = \hat{B}_1(\bar{X}_1 - \bar{X}_0) + \bar{X}_0(\hat{B}_1 - \hat{B}_0) + \varepsilon \qquad (12a)$$

Women Reference group

$$\hat{Y}_0 - \hat{Y}_1 = \hat{B}_0(\bar{X}_0 - \bar{X}_1) + \bar{X}_1(\hat{B}_0 - \hat{B}_1) + \varepsilon \qquad (12b)$$

For the purpose of this study, equation (12a) will be used. Where

- $\hat{Y}_1 - \hat{Y}_0$ is the difference in predicted values between the reference group (Men owned SMEs) and comparison group (women owned SMEs) It measures the overall differences in the gender performance of SMEs.
- $\widehat{B}_1$, $\hat{B}_0$ are vectors of estimated coefficients for separate regression models for group 1 and group 0, respectively.
- $\bar{X}_1$, $\bar{X}_0$ are vectors of average values of the observed characteristics for SMEs in group 1 and group 0, respectively.
- $\hat{B}_1(\bar{X}_1 - \bar{X}_0)$ -1st term on the right hand side- it is referred to as the endowment effect. It represents the difference in performance of SMEs that is accounted for by differences in the average levels of the exogenous determinants between the two groups (men and women). It refers to expected changes in performance at the mean

of women owned SMEs if these enterprises had similar resources as men owned enterprises.

- $\bar{X}_0(\hat{B}_1 - \hat{B}_0)$ – 2nd term on the right hand side – it is referred to as the return effect. It estimates the portion resulting from differences in return to the characteristics. It evaluates the unexplained performance gap due to differences in the coefficients. They are captured by the differences in the estimated regression.

4.2.3.1 Limitations of the Oaxaca and Blinder Decomposition Technique

The OB decomposition technique has some limitations especially in estimating detailed decompositions. The limitations include;

- Results of detailed decomposition analysis are invariant to the choice of omitted category if any of the explanatory variables is categorical.
- The contribution of covariates to returns is highly sensitive to the choice of different omitted groups.
- It fails to identify factors that account for changes in the overall shape of the distribution.

These limitations especially the last one makes it more appropriate to employ the Unconditional Quantile Decomposition technique which allows the decomposition of the factors contributing to the gender performance gap of SMEs along the entire distribution and not just at the mean.

4.2.4 Decomposition Methods – Unconditional Quantile (UQ) Decomposition

Following the limitations of the Oaxaca-Blinder decomposition technique, the study further employs the Unconditional Quantile Decomposition technique which tends to solve some of the limitations of the OB technique.

The Unconditional Quantile Decomposition technique was developed by Firpo, Fortin and Lemieux (2011). It is a build-up on the OB technique. The unconditional quantile decomposition technique decomposes the factors that contributes to the gender performance gap along the entire distribution. This helps to answer the 3rd objective of this study.

With the UQ decomposition technique, we apply the Oaxaca-Blinder decomposition to the RIF regression and impose the law of ignorability and overlapping. By this, the regression function at the τth quantile is given as

$$q_\tau(\hat{Y}_1) - q_\tau(\hat{Y}_0) = E[RIF(P_1; q_1, \tau)] - E[RIF(P_0; q_0, \tau)] \quad (13)$$

Equation (13) is grouped into explained and unexplained effects like the OB decomposition technique.

$$q_\tau(\hat{Y}_1) - q_\tau(\hat{Y}_0) = \left[\bar{X}_1\hat{\beta}_{1\tau} - \bar{X}_0\hat{\beta}_{1\tau}\right] + \left[\bar{X}_0\hat{\beta}_{0\tau} - \bar{X}_1\hat{\beta}_{1\tau}\right] \quad (14)$$

Equation 14 is repositioned as:

$$q_\tau(\hat{Y}_1) - q_\tau(\hat{Y}_0) = \hat{\beta}_{1\tau}(\bar{X}_1 - \bar{X}_0) + \bar{X}_0(\hat{\beta}_{1\tau} - \hat{\beta}_{0\tau}) \quad (15)$$

Where;

- $q_\tau(\hat{Y}_1) - q_\tau(\hat{Y}_0)$ is the measurement of the raw difference in SMEs performance at the specified quantile.

- $\hat{\beta}_{1\tau}(\overline{X}_1 - \overline{X}_0)$ represents the quantile endowment effect. It measures the gender performance gap of SMEs at the specified quantile that are due to differences in the observed characteristics.
- $\overline{X}_0(\hat{\beta}_{1\tau} - \hat{\beta}_{0\tau})$ represents the quantile coefficient effect. It measures the gender performance gap of SMEs at the specified quantile that are due to differential marginal effects of the exogenous determinants of performance of SMEs.

  The selected quantiles for this study are the 25th, 50th, and the 75th quantile.

4.3 Data Source

This paper employs secondary data from the Gender and Enterprise Development in Africa (GEnDA) Survey. The GEnDA survey was undertaken in 2015 in Ghana with the objective of contributing to the nature and dynamisms of SMEs in Ghana focusing on gender differentiated outcomes. The data is a national representative of households with non-agricultural SMEs. Detailed and reliable information on issues of enterprises such as start-ups and current profile, assets and financing, demographic characteristics, profits, cost government regulations etc. are provided in the data set making it useful for this study. It covers 1225 enterprises (SMEs) in Ghana.

4.4 Measurement of Financial Inclusion

In this study, financial inclusion is defined as the knowledge and use of formal and informal financial products by an entrepreneur to borrow, save, transact business, and to manage risk. Following existing literature, there is no definite or a one way of measuring financial inclusion. This study therefore measures financial inclusion by creating an index from some questions in the data. The questions cover both formal and informal banking, access to credit

and insurance products that are available to SME owners in Ghana. In creating the index, equal weight is assigned to the financial products. This is due to the thin line between the financial products and the subjectivity involved in attaching importance to the various financial products. The index was further ranked into 3 categories ranging from those that are highly inclusive to those that are less inclusive. Following the questions asked in the survey, the index as well as rankings were based on the number of questions on the financial products that were answered yes. Thus the more the "yes", the highly inclusive the entrepreneur is.

The questions from which the index was created are provided in the appendix.

4.5 Description of Variables

Profit: The dependent variable used as a performance measure for SMEs in this study is profit measured as sales minus cost. Existing literature (Daniels,2001) reports the difficulties accompanying accurate measurement of the financial performance of SMEs. From a review of 14 different approaches adopted in earlier studies and applying 5 (List of 5 proxy measurements in Appendix) of them to a study in Zimbabwe, Daniels (2001), found proxy 2 (i.e. value of products consumed plus money from enterprise used by the household plus any money left over) to be the best measurement of financial performance of SMEs. However, due to data constraints, proxy 2 could not be applied to this study hence the use of proxy 1 (i.e. profit). The profit variable is recorded as a continuous variable measured as the log of profit (total revenue – total cost).

Financial Inclusion: The financial inclusion variable is measured and ranked into three categories namely; (i) highly inclusive (ii) mid inclusive and (iii) less inclusive. The highly inclusive variable takes the value of 1 if highly inclusive and 0 otherwise. The mid inclusive variable also takes the value of 1 if mid inclusive and 0 otherwise. Likewise, the less

inclusive variable takes the value of 1 if less inclusive and 0 otherwise. Financial inclusion is considered as one of the main building blocks for a sustained and inclusive economy. However, most SMEs are not financially inclusive especially women owned SMEs. The effect of financial inclusion on the performance of SMEs is expected to be positive for both men and women owned SMEs. Using those that are highly inclusive as the reference group, a positive coefficient is expected.

Gender of the Owner of SME: The gender of the owner of the SME is defined as the gender of the person holding majority of the shares in the enterprise. Most of the enterprises are sole proprietorships and for those that are not the majority shareholder is also the principal decision maker. Thus not much difference is expected in the estimations should the gender of the enterprise be redefined as the gender of the manager of the enterprise. This variable is captured as a dummy and takes the value of 1 if the owner is a woman and 2 if the owner is a man. In Ghana, the level of women participation in SMEs is higher as compared to men but their level of performance has always been lower than the men. Thus a negative coefficient is expected if the owner of the SME is a woman.

Number of hired Employees: This variable measures the number of workers permanently employed in the firm. It is recorded as a continuous variable ranging from 0 to 20 employees. Since most SMEs are labour intensive, it is expected that firms with a higher number of hired employees will perform better than those with few employees hence a positive coefficient. Also, it is recorded in literature that women are mostly risk averse and tend to operate small businesses so they employ less labour. Thus the coefficient of this variable for women is expected to be negative and positive for men.

Number of family workers: this variable measures the number of paid and unpaid family workers in the enterprise. It is recorded as a continuous variable ranging from 0 to 10. Due to familiarity most family members when employed by other family members tend to be

reluctant and lazy with their work thus negatively affecting the performance of the firm. A negative coefficient is therefore expected for this variable both with the men and women samples.

Number of hired apprentice: This variable measures the number of workers who are there to learn the trade. It is a continuous variable ranging from 0 to 6. The sign for the coefficient of this variable can be either negative or positive depending on the attitude of the apprentice.

Firm's Age: This variable measures the age of the firm that is, the year from which it begun its operations to 2014. It is a continuous variable ranging from 1 to 76 years. The coefficient of this variable is expected to be positive because as firms mature, they gain more experience and thus performs better.

Location of establishment: the location of the frim is recorded as a dummy variable and measures where the firm is located. It takes the value 1 if the firm is located in an urban centre or 0 if located in a rural area. A negative coefficient is expected for firms located in the rural areas as most of these firms faces more hindrances that those located in the urban centres.

Technology: this variable measures the use of technology (proxied as the use of emails) in the various SMEs. It is recorded as a dummy and takes the value 1 if the firm uses emails in their daily activities and 0 if they don't. As the use of technology is reported in literature to have a positive impact on firm's growth, the coefficient of this variable is therefore expected to be positive for firms that uses technology.

Industry: The variable has been classified into 3 categories namely, manufacturing (taking the value of 1 and 0 otherwise), wholesale and retail (taking the value of 1 and 0 otherwise), and other services (taking the value of 1 and 0 otherwise). The coefficient of this variable is expected to take a negative or positive value depending on the industry in which the firm

operates. However, it is reported in literature that firms in the service sector in Ghana perform better than those in the manufacturing sector and most women in the country operate in the retail sector. Using the manufacturing sector as the reference group, its performance is expected to be lower than that of the service sector.

Formal registration: this variable measures if the firm is formally registered with the appropriate organizations. it is captured as a dummy and takes the value 1 if the firm is registered and 0 if not. The coefficient of this variable is expected to be positive following reports from existing literature.

Age of the owner: the age of the owner is recorded as a continuous variable. It ranges from 14 to 76 years. As one advances in age, the strength and the ability to actively partake in the labour force diminishes, thus a negative coefficient is expected for this variable.

Legal status: the legal status of the enterprise is recorded as a dummy variable. It takes up the vale 1 if it is sole proprietorship or 0 if not. The expected coefficient for this variable is positive.

Marital status: an individual who is legally married or in a consensual union is considered as married in this analysis. Likewise, individuals who has never married, been divorced or separated or considered as singles. The variable marital status is recorded as a dummy variable with the value 1 if married or 0 if single. Married individuals following existing literature tend to be more responsible than singles thus a positive coefficient is expected.

Educational attainment of the owner: This variable measures the highest form of education attained by the owner of the firm. It is categorised into four groups namely (i) no education (ii) basic education (iii) JHS&SHS (iv) tertiary education. With no education as the reference group, a positive coefficient is expected for this variable because education helps to improve the human capital endowment thus improving the performance of firms.

Risk: This variable measures the willingness of the owner of the firm to take risk.it is captured as a dummy and has the value 1 if the owner is risk loving and 0 if risk averse. Women are mostly noted to be risk averse whiles their men counterparts are risk loving. Thus a negative coefficient is expected for women owned SMEs.

CHAPTER FIVE

RESULTS AND DISCUSSIONS

5.0 Introduction

This section presents the findings from the study. The analysis under this section is tied to the main objectives of the study. This chapter has five subsections with the first subsection as the introduction. Section 5.2 gives the description of entrepreneurial and firm characteristics of SMEs in Ghana. Section 5.3 expounds on the determinants of men and women owned SMEs. Gender gaps in the performance of SMEs and the effects of each covariate to the gap in Ghana are addressed at section 5.4 and 5.5 respectively.

In the estimations, we attempted to control for selection bias using Heckman model but the variable used to control for the bias is statistically insignificant along the entire distribution. Thus the discussion of the results is restricted to the normal estimations which does not control for selection bias. Results of the estimations controlling for selection bias is presented at the appendix.

5.1 Description of Entrepreneurial and Firm Characteristics

Table 1 displays summary statistics of the variables used in the estimation. More than half of the SMEs in the sample are women-owned. Out of the 1225 SMEs used for the study, women own 883 firms as against 342 for men. Comparing the characteristics of women owned SMEs to the men Owned SMEs, significant differences were found in their means with the exception of location of the SME and the age of the owner of the SME. Thus, consistent with earlier studies such as Berge et al (2013) Sirec and Mocnik (2012) among others, there exist a significant difference in the performance of men and women owned SMEs.

TABLE 1 DESCRIPTIVE STATISTICS OF THE VARIABLES

VARIABLES	POOLED				WOMEN				MEN				MEAN DIFFERENCE
	Mean	Std. Dev	Min	Max	Mean	Std. Dev	Min	Max	Mean	Std. Dev	Min	Max	Men-Women
Log Of Profit	6.192	4.419	-10.240	12.032	6.110	4.292	-9.210	12.032	6.402	4.731	-10.240	11.983	0.292**
Level Of Financial Inclusion													
Highly Inclusive	0.018	0.133	0	1	0.019	0.137	0	1	0.015	0.120	0	1	-0.005
Mid Inclusive	0.647	0.478	0	1	0.677	0.468	0	1	0.567	0.496	0	1	-0.110***
Less Inclusive	0.336	0.472	0	1	0.304	0.460	0	1	0.418	0.494	0	1	0.115***
Firm's Location	0.530	0.499	0	1	0.535	0.499	0	1	0.518	0.500	0	1	-0.017
Formal Registration	0.146	0.353	0	1	0.117	0.321	0	1	0.222	0.416	0	1	0.106***
Risk Taking	0.613	0.487	0	1	0.557	0.497	0	1	0.758	0.429	0	1	0.200***
Firm's Age	11.036	9.766	1	69	10.625	9.769	1	69	12.096	9.690	1	57	1.471**

Level Of Educational Attainment													
No Education	0.339	0.473	0	1	0.395	0.489	0	1	0.193	0.395	0	1	-0.202***
Basic Education	0.242	0.428	0	1	0.249	0.433	0	1	0.222	0.416	0	1	-0.027
JHS And SHS	0.407	0.491	0	1	0.351	0.478	0	1	0.550	0.498	0	1	0.199***
Tertiary Education	0.013	0.114	0	1	0.005	0.067	0	1	0.035	0.184	0	1	0.031***
Age Of The Owner	31.236	10.558	14	76	31.493	10.396	14	68	30.573	10.951	15	76	-0.920
Legal Status	0.972	0.164	0	1	0.983	0.129	0	1	0.944	0.229	0	1	-0.972***
Marital Status	0.684	0.465	0	1	0.730	0.444	0	1	0.564	0.497	0	1	-1.661***
Technology	0.013	0.114	0	1	0.005	0.067	0	1	0.035	0.184	0	1	0.31***
Type Of Workers													
Hired Workers	0.735	1.872	0	20	0.494	1.247	0	15	1.357	2.833	0	20	0.863***
Family Workers	0.299	0.870	0	10	0.290	0.841	0	7	0.322	0.942	0	10	0.032
Apprentice	0.098	0.547	0	6	0.060	0.439	0	6	0.196	0.750	0	6	0.136***

Industry Of The Firm													
Manufacturing	0.334	0.472	0	1	0.331	0.471	0	1	0.342	0.475	0	1	0.011
Wholesale And Retail	0.529	0.499	0	1	0.578	0.494	0	1	0.404	0.491	0	1	-0.174***
Others	0.137	0.344	0	1	0.092	0.289	0	1	0.254	0.436	0	1	0.163***
Gender Of The Owner	0.721	0.449	0	1	-	-	-	-	-	-	-	-	-
Number Of Observations	1225				883				342				-

**p<0.1, **p<0.05, ***p<0.*

5.2 Determinants of the Performance of Women- Men Owned SMEs in Ghana Along the Entire Distribution

Table 2 reports the OLS and the UQR estimation of the determinants of men and women owned SMEs performance. Columns (1) and (2) provide the outcomes of the OLS whereas the remaining columns present the UQR estimations at the 25^{th}, 50^{th}, and 75^{th} quantiles.

The key variable of interest is financial inclusion. As expected, there exists substantial variation in firm performance across the various levels of financial inclusion for both men-owned and women- owned SMEs. This is evident in the signing of the coefficients in the full sample (see table A in appendix) and also in the men and women subgroups. From Table 2, it can be seen that at the mean and along the entire distribution, men who are averagely(mid) and less (lower) inclusive perform lower than those that are highly inclusive. Likewise, for women who are less inclusive with the exception of the 25^{th} quantile. Contrary to that of the men, women that are averagely (mid) inclusive perform better than those that are highly inclusive. Women are known to be good with savings (in the home) than the men thus explaining their better performance when averagely inclusive.

Although the coefficients at all levels were insignificant, it reflects the general financial environment in which the business operates and its effects on the firm's savings, investment and expanding level and on performance in general. The low performance of women (less inclusive) is regular with existing literature as these firms are excluded from the full benefits of financial inclusion which gives them access to loans to expand and invest more into their business, manage risk and other financial shocks which can help promote their business. The performance of the averagely (mid) inclusive women been better than that of the highly inclusive is also not surprising. Following reports from existing literature, sometimes the cost of conducting financial transactions and overcoming the barriers to financial inclusion

becomes too costly thus affecting those that are highly inclusive. This gives the averagely inclusive entrepreneurs an upper hand over the highly inclusive.

5.2.1 Men Heads

From Table 2, taking risk and having junior or secondary education (JHS/SHS) were the only significant determinants of SMEs owned by men at the 50th quantile with age of the owner and the use of hired workers and apprentice been the significant determinants at the 75th quantile.

The coefficient for hired workers is positive and concurs the findings of Daniels & Mead (1998) who reported a significant positive impact of hired labour on performance among microenterprises in Kenya. The positive relationship reflects the labour intensive nature of SMEs. However, engaging apprentice has a negative impact on the performance of men owned SMEs. This shows that, although engaging apprentice is cheap compared to hired labour, its effect on SMEs performance is negative. This result is in contrast to the findings of Masakure, Cranfield & Henson (2008).

The age of the firm has a negative effect on the performance of men owned SMEs. The interpretation of these results is that as the firm's years of existence increases, their performance falls. This could be due to the fact that men are reported in existing literature to be risk lovers and thus tend to diversify their portfolio. Thus as their firms mature and gains its feet, they tend to invest their time and resources in other ventures causing the low performance. The negative effect of firm's age on performance of men owned SMEs is similar to that of the pooled Sample.

Taking risk and having JHS/SHS education from Table 2 also shows to have a positive relationship with firm performance. Attaining higher levels of education enhances one's human capital which helps in the better performance of SMEs.

5.2.2 Women Heads

Following results from the estimations, the determinants of performance of Female owned SMEs vary along the quantiles. The location of the firm, having a basic, JHS/SHS or tertiary education, and the industry in which the firm operates were the common significant determinants of women owned SMEs across the various quantiles (25^{th}, 50^{th}, 75^{th}) with being married, the age of the firm, and employing hired workers been exclusive to the 25^{th}, 50^{th} and 75^{th} quantiles respectively.

Taking risk from Table 2 shows a significant positive impact on firm performance of women owned SMEs at the mean, 25th and 50th quantiles. The positive coefficient for taking risk affirms reports from existing studies that identifies taking risk to be a factor in enhancing firm performance. However, at the upper quantile, risk is statistically insignificant. This could be due to the fact that at higher levels of profit, women may see taking risk as unnecessary. They may not be willing to venture into any risky business that may reduce their level of profit as literature already reports that women are mostly risk averse.

The type of employees from Table 2 is significant only at the mean and 75^{th} quantile. At the mean employing apprentice improves firm performance. This is because employing apprentice is cheap and thus reduces cost of labour for women owned SMEs thus enhancing their performance (Masakure et al,2008). On the contrary, employing apprentice at the 75^{th} quantile has no significant effect on performance but rather, employing hired workers has. The significant effect of Hired workers at the upper quantile and not at the lower quantiles

can be as a result of the higher levels of profit, the owners are in a good position to afford the services of a hired worker who mostly have the necessary experience to help improve the business. Also the use of hired workers gives room for the woman (owner) to have time for other household duties without reducing her firm productivity. This also explains why at the upper quantiles, being married no longer significantly determine the performance of women owned SMEs compared to the negative effect of being married on their performance at the 25^{th} quantile.

One interesting finding from the result is the variances in the level of significance of the impact of formal education on women owned SMEs performance. From the lower to the upper quantile, the level of significance reduces with having basic and tertiary education not been significant at all at the upper quantile. JHS/SHS education which remained significant at the 75^{th} quantile is at 10% level of significance. The fall in the need of formal education at higher profit levels among women owned SMEs could be because, at that level, they can employ the human capital of others. The higher level of profits affords them the opportunity to employ experts with the knowledge and technical knowhow to run their business for them.

The location and industry where the firm functions are significant determinants of firm performance among women owned SMEs across the various quantiles. This shows that irrespective of the firm's level of profit, industry and location still play an important role in its performance. The results indicate that, women owned SMEs in the wholesale and retail sector perform better than those in the manufacturing sector. Following Fafchamps & Gabre-Madhin, the observed variations in SMEs performance across the various industries shows the environment the firm works and their effect on market structures and others.

TABLE 2 OLS AND UQR ESTIMATION OF THE PERFORMANCE OF MEN AND WOMEN OWNED SMEs.

Explanatory Variables	OLS		25TH QUANTILE		50TH QUANTILE		75TH QUANTILE	
	Men	Women	Men	Women	Men	Women	Men	Women
Level of Financial Inclusion (Reference: Higher level of inclusion)								
mid	-1.184	0.205	-0.402	1.338	-1.511	0.270	-2.038	0.163
	(2.170)	(0.953)	(2.298)	(1.108)	(1.225)	(0.608)	(1.405)	(0.526)
lower	-2.223	-1.277	-0.870	0.225	-1.459	-0.366	-1.840	-0.229
	(2.198)	(0.987)	(2.297)	(1.125)	(1.225)	(0.623)	(1.402)	(0.535)
Firm's location	0.290	0.314	0.134	0.504*	0.422	0.550***	0.388	0.528***
	(0.514)	(0.3 16)	(0.440)	(0.268)	(0.277)	(0.172)	(0.243)	(0.147)
Formal Registration of Firm	0.440	0.451	0.498	0.594	0.261	-0.287	0.275	-0.182
	(0.642)	(0.478)	(0.504)	(0.380)	(0.334)	(0.241)	(0.316)	(0.219)
Taking Risk	1.010	0.853***	0.735	0.761***	0.560*	0.677***	0.309	0.151
	(0.655)	(0.290)	(0.519)	(0.270)	(0.296)	(0.154)	(0.257)	(0.145)
Age of the Firm	-0.008	-0.018	-0.015	-0.016	-0.0125	0.0146*	-0.0188*	0.00698
	(0.024)	(0.015)	(0.023)	(0.01)	(0.0144)	(0.00784)	(0.0107)	(0.00686)
Level of Educational Attainment (Reference: No Education)								
Basic education	0.00718	0.273	0.282	0.727**	0.358	0.360*	-0.364	0.182
	(0.848)	(0.399)	(0.702)	(0.336)	(0.425)	(0.197)	(0.306)	(0.168)
JHS_SHS	0.911	0.713*	0.672	1.032***	0.654*	0.544***	0.376	0.323*
	(0.697)	(0.365)	(0.600)	(0.337)	(0.371)	(0.178)	(0.299)	(0.169)
Tertiary education	0.391	0.801	-0.291	2.024**	0.864	0.592	0.774	-0.251
	(1.828)	(0.707)	(1.425)	(0.889)	(0.777)	(0.896)	(0.783)	(1.264)
Age of the Owner of the Firm	0.0213	-0.00136	0.00602	0.00681	0.00519	0.00789	-0.0180	-0.00354
	(0.0232)	(0.0127)	(0.0227)	(0.0135)	(0.0144)	(0.00737)	(0.0113)	(0.00678)
Sole Proprietorship Firms	1.286	0.372	0.919	0.598	0.485	-0.236	0.471	-0.861
	(1.385)	(1.403)	(1.035)	(0.906)	(0.529)	(0.592)	(0.450)	(0.646)
Married	-0.872	0.146	-0.196	0.599**	-0.308	0.0889	0.134	0.127
	(0.621)	(0.313)	(0.536)	(0.287)	(0.298)	(0.179)	(0.244)	(0.152)
Use of Technology	-2.373	2.958***	-0.478	1.660**	-0.343	1.859***	-0.118	0.795
	(2.492)	(1.007)	(1.393)	(0.711)	(0.713)	(0.461)	(0.749)	(1.351)
Type of Employees								

Explanatory Variables	OLS		25TH QUANTILE		50TH QUANTILE		75TH QUANTILE	
	Men	Women	Men	Women	Men	Women	Men	Women
Hired Workers	0.0577	-0.211	0.00904	0.0935	0.112	0.163	0.131*	0.259**
	(0.181)	(0.334)	(0.113)	(0.191)	(0.0752)	(0.101)	(0.0705)	(0.126)
Family Workers	0.208	0.533	0.111	0.0906	-0.0379	0.0177	-0.0994	-0.0808
	(0.317)	(0.392)	(0.283)	(0.278)	(0.197)	(0.152)	(0.165)	(0.156)
Apprentice	-0.251	0.890**	-0.218	0.241	-0.227	0.0668	-0.457**	-0.0404
	(0.384)	(0.383)	(0.357)	(0.354)	(0.221)	(0.194)	(0.189)	(0.191)
Industry of the Firm (Reference: Manufacturing)								
Wholesale and Retail	-0.620	0.493	-0.110	0.718**	0.170	0.418**	0.163	0.432***
	(0.591)	(0.336)	(0.566)	(0.305)	(0.342)	(0.173)	(0.251)	(0.148)
Other Sectors	-0.175	0.101	0.292	0.551	0.178	0.311	0.357	0.428*
	(0.672)	(0.522)	(0.539)	(0.445)	(0.376)	(0.269)	(0.290)	(0.260)
Constant	5.482**	4.695***	5.344**	1.884	7.714***	6.015***	10.28***	8.380***
	(2.610)	(1.734)	(2.614)	(1.538)	(1.379)	(0.843)	(1.560)	(0.849)
Observations	342	883	342	883	342	883	342	883
R-squared	0.056	0.066	0.040	0.094	0.071	0.112	0.120	0.080

*Robust and bootstrap standard errors in parentheses for OLS and unconditional quantile estimations respectively. ***p<0.01, **p<0.05,*p<0.1*

5.3 Gender Gaps in SMEs Performance in Ghana

The Oaxaca- Blinder decomposition technique was used to test for the presence of gaps in the performance of men and women owned SMEs. Results of the gender gaps in the performance of SMEs is presented in Table 3. The table presents the raw difference, the explained (endowment) impact and the unexplained (return/ coefficient) impact to the entire gender gap in performance of SMEs. The explained effect measures the variations in observed features between women and men owners of SMEs. The unexplained effect also measures the impact of unobserved features such as ability on men and women owners of SMEs. It is the residual gap that is left after accommodating for the variation between the observed features between men and women.

Akin to the findings of the effects of gender of the owner of the SME on firm performance from the quantile regressions, the decomposition results also show a significant raw difference at the 25^{th}, 50^{th} and 75^{th} quantiles. The 25^{th} quantile recorded the largest gap whiles the lowest is at the 50^{th} quantile. The significant gender gap is due to the low performance of women owned SMEs compared to men owned SMEs. The raw difference at the mean is statistically insignificant.

At the 25^{th} quantile, the results show a significant positive unexplained impact. The positive coefficient means that the unexplained effect favours the women owned SMEs. Women entrepreneurs therefore receive higher returns on similar but unobserved characteristics compared to men. The explained effect though statistically insignificant is also positive. This means that observed characteristics such as the age of the owner, the legal status of the firm among others contributes to the widening of the gender performance gap. The unexplained effect accounts for about 70% of the total gender performance gap.

TABLE 3 SUMMARY OF OAXACA AND BLINDER DECOMPOSITION RESULTS AT THE MEAN AND AT SELECTED QUANTILES

Variables	Mean	25th Quantile	50th Quantile	75th Quantile
Men	6.402***	6.696***	7.905***	8.953***
	(0.270)	(0.182)	(0.122)	(0.110)
Women	6.110***	5.800***	7.614***	8.529***
	(0.143)	(0.121)	(0.0749)	(0.068)
Difference	0.292	0.896***	0.292*	0.425***
	(0.320)	(0.220)	(0.150)	(0.129)
Explained	0.404	0.202	0.308**	0.208*
	(0.280)	(0.193)	(0.140)	(0.122)
Unexplained	-0.112	0.694***	-0.0162	0.216
	(0.441)	(0.188)	(0.160)	(0.138)

*Robust and bootstrap standard errors in parentheses for OLS and unconditional quantile estimations respectively. ***p<0.01 **p<0.05, *p<0.1*

The 50th quantile reports a positive and statistically significant explained effects but a negative and statistically insignificant unexplained effect. The unexplained effect contrary to the 25th and 75th quantile favours men owned SMEs. The interpretation of this is that men at the 50th quantile reaps higher returns from similar characteristics than women. At the said quantile, observed characteristics widens the gender performance gap by 31%.

The unexplained effect though statistically insignificant at the 75th quantile favours women owned SMEs. Women receives more returns from unobserved characteristics than men by approximately 20%. The explained effect is positive and statistically significant. Thus observed characteristics widens the gap and accounts for about 21% of the total gender performance.

5.4 Contribution of Covariates to the Gender Performance of SMEs in Ghana

Table 4 gives the detailed decomposition results. The results show the contribution of each independent variable to the gender performance gap.

Financial inclusion which is our main variable of interest has a negative unexplained effect at the mean and at the selected quantiles but statistically significant only at the 50th and 75th quantiles. The negative unexplained effect favours men. Men therefore receive higher returns when they are financially included than their female counterparts. For the less inclusive (lower), the explained effect is negative along the entire distribution except the 25th quantile. This shows that the observed characteristics widens the gender performance gap by approximately 30% at the 25th quantile. Similarly, for the averagely inclusive owners, the observed characteristics widens the gender performance gap along the entire distribution.

The explained and unexplained effects for the formal registration of the firm are statistically insignificant at the mean and selected quantiles except at the 50th quantile where the

unexplained effect is significant at 10% level of significance. The unexplained effect at the said quantile is positive in favour of women.

The years of operation of the firm (firm's age) recorded a negative statistically insignificant explained effect at all the selected quantiles. The unexplained effect (negative) is also significant only at the 50^{th} and 75^{th} quantile at 5% level of significance. This shows that men receive higher returns when they operate for longer years than women owners of SMEs.

The results indicate that, women receive higher returns when in sole proprietorship than men at the mean, the 50^{th} and 75^{th} quantile where it is statistically significant. Although the explained effect is statistically insignificant Sole proprietorship SMEs reduces the gender performance gap at all the selected quantiles.

Hired workers and apprentice at the upper quantile have a significant positive and negative explained effect respectively. This shows that as hired workers widen the gender performance gap, the use of apprentice reduces the gap. But the percentage by which hired workers widens the gap is more than the percentage by which the use of apprentice reduces the gap. The returns effect for hired workers is negative in favour of men at the selected quantiles but positive at the mean (favouring women). However, family worker has insignificant effect at the various quantiles.

Location of the SME, risk, level of education (basic education, JHS&SHS, tertiary), owner's age, marital status, technology and the industry in which the firm operates have statistically insignificant explained and unexplained effects.

For all points along the quantiles for all the covariates, the unexplained effect dominates the explained effect. The gender inequality gap among SMEs in Ghana is therefore mainly explained by differences in return to individual and enterprise characteristics.

TABLE 4 DETAILED DECOMPOSITION REULTS (MEAN AND UQR)

Variables	MEAN		25th QUANTILE		50th QUANTILE		75th QUANTILE	
	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
Level of Financial Inclusion (Reference: Higher level of inclusion)								
mid	0.130	-0.941	-0.0261	-0.657	0.128*	-0.931*	0.201	-1.323*
	(0.300)	(1.866)	(0.0801)	(0.662)	(0.0743)	(0.511)	(0.125)	(0.712)
lower	-0.255	-0.287	0.0377	-0.215	-0.0927	-0.248	-0.166	-0.446
	(0.327)	(0.846)	(0.0833)	(0.300)	(0.0755)	(0.230)	(0.125)	(0.328)
Firm's location	-0.00493	-0.0127	0.000387	-0.174	-0.00573	-0.0644	-0.00574	-0.0694
	(0.0205)	(0.327)	(0.00834)	(0.158)	(0.0141)	(0.140)	(0.0129)	(0.133)
Formal Registration of Firm	0.0465	-0.00133	0.0275	-0.00539	0.0140	0.0643*	0.0208	0.0545
	(0.0703)	(0.0946)	(0.0273)	(0.0393)	(0.0267)	(0.0377)	(0.0302)	(0.0374)
Taking Risk	0.202	0.0870	0.0381	-0.0149	0.0529	-0.0905	0.0262	0.0815
	(0.139)	(0.397)	(0.0573)	(0.184)	(0.0515)	(0.157)	(0.0468)	(0.143)
Age of the Firm	-0.0121	0.108	-0.0148	-0.0578	-0.0148	-0.320**	-0.0255	-0.296**
	(0.0379)	(0.315)	(0.0204)	(0.163)	(0.0191)	(0.128)	(0.0179)	(0.120)
Level of Educational Attainment (Reference: No Education)								
Basic education	-0.000193	-0.0662	-0.00750	-0.0684	-0.00957	0.0188	0.00984	-0.123
	(0.0342)	(0.235)	(0.0187)	(0.115)	(0.0176)	(0.102)	(0.0144)	(0.0791)
JHS_SHS	0.181	0.0694	0.0358	-0.139	0.0769	0.0182	0.0428	0.0108

Variables	MEAN		25th QUANTILE		50th QUANTILE		75th QUANTILE	
	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
	(0.148)	(0.274)	(0.0727)	(0.137)	(0.0622)	(0.118)	(0.0514)	(0.105)
Tertiary education	0.0119	-0.00186	-0.0153	-0.00914	0.0229	0.00178	0.0215	0.00503
	(0.0558)	(0.0107)	(0.0278)	(0.00690)	(0.0182)	(0.00462)	(0.0207)	(0.00613)
Age of the Owner of the Firm	-0.0196	0.714	0.00505	-0.415	0.000967	-0.294	0.0200	-0.583
	(0.0330)	(0.848)	(0.0163)	(0.487)	(0.0141)	(0.415)	(0.0184)	(0.378)
Sole Proprietorship Firms	-0.0496	0.898	-0.00869	-0.134	-0.00418	0.446	-0.00944	1.158*
	(0.0587)	(1.972)	(0.0218)	(0.825)	(0.0189)	(0.631)	(0.0167)	(0.641)
Married	0.145	-0.743	-0.0456	-0.169	0.00881	-0.0724	-0.0477	0.137
	(0.107)	(0.512)	(0.0464)	(0.231)	(0.0413)	(0.216)	(0.0426)	(0.198)
Use of Technology	-0.0725	-0.0242	0.0245	0.00465	0.0108	-0.00289	0.00914	0.000361
	(0.0780)	(0.0204)	(0.0172)	(0.00483)	(0.0154)	(0.00329)	(0.0180)	(0.00563)
Type of Employees								
Hired Workers	0.0498	0.133	-0.0191	-0.123**	0.0819**	-0.0642	0.104**	-0.0886
	(0.158)	(0.187)	(0.0414)	(0.0561)	(0.0371)	(0.0432)	(0.0429)	(0.0589)
Family Workers	0.00660	-0.0941	-5.32e-05	0.0716	-0.00313	0.0116	-0.00431	0.0141
	(0.0244)	(0.150)	(0.00954)	(0.0633)	(0.00949)	(0.0496)	(0.0109)	(0.0559)
Apprentice	-0.0341	-0.0685*	-0.0113	0.0146	-0.0209	0.00246	-0.0561**	-0.0120
	(0.0565)	(0.0355)	(0.0254)	(0.0196)	(0.0237)	(0.0133)	(0.0255)	(0.0149)
Industry of the Firm (Reference: Manufacturing)								
Wholesale and Retail	0.108	-0.643	-0.0392	-0.103	-0.0612	0.0453	-0.0473	-0.0372

Variables	MEAN		25th QUANTILE		50th QUANTILE		75th QUANTILE	
	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
	(0.103)	(0.402)	(0.0551)	(0.209)	(0.0475)	(0.179)	(0.0405)	(0.155)
Other Sectors	-0.0285	-0.0254	0.0628	-0.00918	0.0373	-0.00474	0.0631	-0.00183
	(0.112)	(0.0781)	(0.0504)	(0.0384)	(0.0444)	(0.0325)	(0.0445)	(0.0326)
Constant	0.787		3.492**		1.472		1.849	
	(3.628)		(1.415)		(1.051)		(1.376)	
Observations	1,225		1,225		1,225		1,225	

*Robust and bootstrap standard errors in parentheses for OLS and unconditional quantile estimations respectively. ***p<0.01, **p<0.05,*p<0.1*

CHAPTER SIX

SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS

6.1 Introduction

This chapter concludes the study and it has three sections. Section 6.2 presents the summary of the main findings of the study. Section 6.3 and 6.4 presents some policy recommendations and limitations of the study respectively.

6.2. Summary of Main Findings

This study sought to examine the presence, extent and sources of gender gaps in SMEs performance in Ghana. Also the study further explored the impact of financial inclusion on men and women owned SMEs performance along the entire distribution.

The study employed the Gender and Enterprise Development in Africa Survey (GEnDA), 2015. A survey collected purposefully for the purpose of studying gender differences in performance. The study used the OLS and the unconditional quantile regression (UQR) technique to assess the determinants of firm performance at the mean and at selected quantiles (25^{th}, 50^{th} and 75^{th}). Also the study decomposes the total gender gap in firm performance into factors attributable to variations in observed features between men and women owners and factors due to gender differences in the returns to endowments at the selected quantiles.

The study used profit of the firm as a proxy for measuring firm performance. To measure financial inclusion, an index measuring the usage and knowledge of the various financial products in the informal and formal financial markets was created.

The results from study shows that men owned SMEs perform better than women owned SMEs. The level of financial inclusion was found to positively affect the performance of SMEs at some quantiles. At other quantiles, the effect of financial inclusion on the performance of SMEs was found to be negative. The coefficients of financial inclusion were insignificant across gender and at the various quantiles. The level of risk taking, firm's location, level of education, the marital status of owner, the use of technology, the number of workers and the industry in which the firm operates were found to be significant determinants of firm Performance in Ghana across gender. These results were similar to that of the pooled sample which recorded statistically significant coefficients for the location of the enterprise, risk, level of education, the number of workers and the industry in which the form operates.

The decomposition results further confirm the existence of gender gaps in firm performance. With the exception of the mean which reported a statistically insignificant gender performance gap, the decomposition at the selected quantiles showed a statistically significant gender performance gap. The unexplained effect account for a greater part of the total gap at the 25^{th} quantile.

6.3 Policy Recommendations

The study reveals that although women owned SMEs are more than men owned in Ghana, their performance is lower than the men. Their low performance can be attributed to their low level of financial inclusion which hinder them from reaping the full benefits of been financially included. The findings from this study shows that less financially included women entrepreneurs perform lower than those that are highly included. Policies and strategies to promote financial inclusion among women entrepreneurs should be encouraged. This will go a long way to better their performance. Policy makers should therefore come up with more

policies that can help better the performance of women owned SMEs. The following are some policy recommendations

- Financial consultants have to be abreast to numerous demand-side problems of financial inclusion such as financial literacy and the geographical distance of formal financial institutions when rendering services about the merits of applying for external funding to SME owners.
- Women's business chambers should be created by the Ministry of Gender, Children and Social protection as it helps in building the capacity and understanding of the loan application process of women.
- There should be proper disseminating of knowledge and information on policy initiatives that have been recently undertaken by the central bank.
- Agent banking and mobile financial services should be encouraged to cater for the gender gaps in the level of financial inclusion of women and women owned SMEs. This is because although laws and regulations are gender neutral, they may have unintentional consequences on women due to wider social norms.

6.3 Limitations of the Study

The data employed covers only non-agricultural SMEs. Because of absence of proper instruments, Potential endogeneity problem could not be addressed. Future studies that will assess the impact of financial inclusion on firm's performance should look at controlling for potential endogeneity between firm performance and other control variable.

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APENDIX

TABLE 5 OLS AND UQR ESTIMATION OF THE PERFORMANCE OF SMEs IN GHANA (FULL SAMPLE)

Explanatory Variables	OLS	25TH QUANTILE	50TH QUANTILE	75TH QUANTILE
Level of Financial Inclusion (Reference: Higher level of inclusion)				
mid	-0.049	1.140	-0.034	-0.560
	(0.853)	(0.983)	(0.494)	(0.532)
lower	-1.375	-0.014	-0.502	-0.672
	(0.877)	(0.991)	(0.500)	(0.542)
Firm's Location	0.302	0.520**	0.507***	0.330**
	(0.263)	(0.241)	(0.128)	(0.129)
Formal Registration of Firm	0.412	0.569*	-0.138	0.207
	(0.380)	(0.322)	(0.180)	(0.201)
Taking Risk	0.935***	0.846***	0.643***	0.379***
	(0.268)	(0.246)	(0.136)	(0.125)
Age of the Firm	-0.014	-0.021	0.010	0.004
	(0.013)	(0.013)	(0.006)	(0.006)
Level of Educational Attainment (Reference: No Education)				
Basic education	0.215	0.812**	0.391**	0.078
	(0.355)	(0.334)	(0.177)	(0.156)
JHS_SHS	0.813**	1.166***	0.606***	0.374***
	(0.318)	(0.303)	(0.151)	(0.144)
Tertiary	0.605	1.028	0.727	1.058*
	(1.349)	(1.026)	(0.543)	(0.633)
Age of the Owner	0.001	0.002	0.008	-0.009
	(0.011)	(0.012)	(0.006)	(0.006)
Sole Proprietorship Firm	0.814	0.865	0.0342	-0.545

	(0.990)	(0.743)	(0.370)	(0.424)
Married	-0.151	0.231	-0.0368	0.119
	(0.278)	(0.258)	(0.139)	(0.129)
Use of Technology	-0.899	-0.332	0.219	0.124
	(2.001)	(1.185)	(0.541)	(0.615)
Type of Employees				
Hired workers	-0.0111	0.0206	0.104*	0.204***
	(0.150)	(0.0950)	(0.0572)	(0.0645)
Family workers	0.308	0.160	0.0763	-0.132
	(0.218)	(0.171)	(0.0943)	(0.0968)
Apprentice	0.226	-0.0458	-0.0914	-0.149
	(0.241)	(0.260)	(0.137)	(0.169)
Industry of the Firm (Reference: Manufacturing)				
Wholesale and retail	0.247	0.537**	0.370**	0.327**
	(0.289)	(0.265)	(0.146)	(0.138)
Other sectors	0.133	0.505	0.332	0.249
	(0.412)	(0.383)	(0.212)	(0.202)
Women	-0.0896	-0.312	-0.153	-0.277**
	(0.314)	(0.283)	(0.159)	(0.139)
Constant	1,225	1,225	1,225	1,225
R-squared	0.051	0.074	0.090	0.079

*Robust and bootstrap standard errors in parentheses for OLS and unconditional quantile estimations respectively. ***p<0.01,**p<0.05,*p<0.1*

TABLE 6 OLS AND UQR ESTIMATION (CONTROLLING FOR SELECTION BIAS) OF THE PERFORMANCE OF SMES IN GHANA (POOL SAMPLE)

Explanatory Variables	OLS	25TH QUANTILE	50TH QUANTILE	75TH QUANTILE
Level of Financial Inclusion (Reference: Higher level of inclusion)				
mid	-0.453	-1.632	-0.635	0.246
	(2.612)	(1.916)	(1.019)	(1.112)
lower	-3.295	-13.17	-3.353	3.156
	(11.84)	(8.228)	(4.228)	(4.623)
Firm's Location	0.695	3.216*	1.092	-0.455
	(2.429)	(1.698)	(0.865)	(0.938)
Formal Registration of Firm	0.800	3.223*	0.437	-0.565
	(2.418)	(1.713)	(0.880)	(0.941)
Taking Risk	2.019	8.274*	2.253	-1.782
	(6.703)	(4.669)	(2.374)	(2.586)
Age of the Firm	-0.0344	-0.163*	-0.0212	0.0456
	(0.129)	(0.0909)	(0.0460)	(0.0493)
Level of Educational Attainment (Reference: No Education)				
Basic education	-0.245	-2.344	-0.293	0.996
	(2.875)	(1.996)	(1.026)	(1.101)
JHS_SHS	1.095	3.100**	1.025	-0.189
	(1.762)	(1.244)	(0.632)	(0.683)
Tertiary	0.0853	-2.536	-0.0450	2.095
	(3.513)	(2.480)	(1.251)	(1.404)
Age of the Owner	0.0141	0.0953	0.0284	-0.0356
	(0.0852)	(0.0594)	(0.0302)	(0.0325)
Sole Proprietorship Firm	2.506	12.46*	2.547	-3.919
	(10.59)	(7.251)	(3.675)	(4.001)
Married	-0.971	-5.390	-1.255	1.754

	(5.089)	(3.548)	(1.786)	(1.943)
Use of Technology	-3.132	-15.64	-3.098	4.576
	(13.53)	(9.596)	(4.856)	(5.307)
Type of Employees				
Hired workers	-0.174	-1.099	-0.139	0.530
	(0.992)	(0.710)	(0.370)	(0.405)
Family workers	0.767	3.307*	0.758	-1.047
	(2.807)	(1.985)	(1.016)	(1.106)
Apprentice	1.451	8.352	1.729	-2.592
	(7.563)	(5.273)	(2.696)	(2.925)
Industry of the Firm (Reference: Manufacturing)				
Wholesale and retail	0.249	0.552*	0.373***	0.322**
	(0.290)	(0.289)	(0.143)	(0.134)
Other sectors	0.137	0.533	0.338	0.240
	(0.408)	(0.370)	(0.220)	(0.211)
Women	0.0379	0.561	0.0359	-0.531
	(0.844)	(0.617)	(0.311)	(0.335)
Mills	-4.908	-33.64	-7.290	9.786
	(30.17)	(21.04)	(10.74)	(11.69)
Constant	12.74	57.24*	18.17	-6.657
	(48.85)	(34.14)	(17.51)	(19.07)
Observations	1,225	1,225	1,225	1,225
R-squared	0.051	0.076	0.091	0.079

*Robust and bootstrap standard errors in parentheses for OLS and unconditional quantile estimations respectively. ***p<0.01,**p<0.05,*p<0.1*

TABLE 7 OLS AND UQR ESTIMATION (CONTROLLING FOR SELECTION BIAS) FOR MEN AND WOMEN SUBGROUP

Explanatory	OLS		25TH QUANTILE		50TH QUANTILE		75TH QUANTILE	
	Men	Women	Men	Women	Men	Women	Men	Women
Level of Financial Inclusion (Reference: Higher level of inclusion)								
mid	1.999	-3.794	-0.626	-2.977	-1.639	-0.622	-1.825	1.432
	(4.613)	(2.934)	(3.588)	(2.771)	(2.054)	(1.393)	(1.835)	(1.339)
lower	13.31	-20.16	-1.965	-20.15*	-2.083	-4.578	-0.800	5.761
	(20.65)	(13.01)	(12.78)	(12.22)	(7.624)	(5.868)	(6.493)	(5.744)
Firm's Location	-2.898	4.181	0.358	4.675*	0.550	1.412	0.175	-0.698
	(4.247)	(2.681)	(2.547)	(2.533)	(1.576)	(1.197)	(1.379)	(1.164)
Formal Registration of Firm	-2.762	4.230	0.724	4.671*	0.390	0.556	0.0604	-1.381
	(4.356)	(2.673)	(2.662)	(2.501)	(1.598)	(1.161)	(1.404)	(1.155)
Taking Risk	-7.740	11.52	1.352	12.27*	0.911	3.057	-0.277	-3.234
	(11.82)	(7.332)	(7.019)	(6.893)	(4.254)	(3.290)	(3.701)	(3.213)
Age of the Firm	0.160	-0.222	-0.0264	-0.236*	-0.0192	-0.0308	-0.00749	0.0716
	(0.228)	(0.140)	(0.136)	(0.131)	(0.0827)	(0.0631)	(0.0717)	(0.0619)
Level of Educational Attainment (Reference: No Education)								
Basic education	3.753	-4.256	0.0184	-4.160	0.207	-0.650	-0.113	1.619
	(4.996)	(3.164)	(3.138)	(2.954)	(1.853)	(1.404)	(1.596)	(1.376)
JHS_SHS	-1.353	3.506*	0.831	4.045**	0.745	1.167	0.224	-0.563
	(3.169)	(1.909)	(1.882)	(1.817)	(1.150)	(0.890)	(0.964)	(0.857)
Tertiary	4.577	-4.325	-0.586	-3.507	0.696	-0.552	1.054	1.376
	(5.813)	(3.680)	(3.589)	(3.450)	(2.110)	(1.816)	(1.951)	(1.978)
Age of the Owner	-0.0871	0.132	0.0137	0.151*	0.00955	0.0377	-0.0253	-0.0459
	(0.151)	(0.0929)	(0.0900)	(0.0888)	(0.0537)	(0.0422)	(0.0476)	(0.0409)
Sole Proprietorship Firm	-12.30	17.12	1.876	18.67*	1.030	3.500	-0.439	-6.173
	(18.35)	(11.61)	(10.89)	(10.90)	(6.617)	(5.119)	(5.669)	(5.099)
Married	5.696	-7.948	-0.658	-8.133	-0.572	-1.717	0.574	2.695

	(8.914)	(5.584)	(5.303)	(5.250)	(3.201)	(2.488)	(2.749)	(2.443)
Use of Technology	15.72	-19.23	-1.753	-22.28	-1.069	-3.090	1.093	7.833
	(23.95)	(15.05)	(14.41)	(14.37)	(8.683)	(6.832)	(7.550)	(6.819)
Type of Employees								
Hired workers	1.367	-1.864	-0.0832	-1.691	0.0592	-0.206	0.219	0.784
	(1.728)	(1.233)	(1.061)	(1.078)	(0.653)	(0.528)	(0.560)	(0.499)
Family workers	-3.508	5.094	0.372	5.012*	0.111	1.035	-0.348	-1.528
	(4.956)	(3.179)	(3.004)	(2.932)	(1.806)	(1.424)	(1.563)	(1.378)
Apprentice	-10.09	13.07	0.475	13.38*	0.168	2.784	-1.116	-3.904
	(13.21)	(8.378)	(7.924)	(7.890)	(4.795)	(3.763)	(4.147)	(3.652)
Industry of the Firm (Reference: Manufacturing)								
Wholesale and retail	-0.667	0.501	-0.106	0.726**	0.172	0.420**	0.160	0.430***
	(0.591)	(0.335)	(0.595)	(0.321)	(0.331)	(0.177)	(0.258)	(0.145)
Other sectors	-0.305	0.0560	0.301	0.502	0.183	0.301	0.349	0.442*
	(0.660)	(0.525)	(0.586)	(0.466)	(0.338)	(0.290)	(0.298)	(0.258)
Women	39.78	-48.27	-2.802	-52.08*	-1.597	-10.77	2.663	15.31
	(53.11)	(32.87)	(31.93)	(31.14)	(19.28)	(14.90)	(16.59)	(14.59)
Mills	-59.17	84.28	9.899	87.75*	10.31	23.77	5.952	-16.87
	(85.82)	(54.17)	(52.18)	(51.23)	(31.37)	(24.67)	(26.85)	(24.10)
Constant								
	342	883	342	883	342	883	342	883
R-squared	0.060	0.068	0.040	0.098	0.071	0.112	0.120	0.081

*Robust and bootstrap standard errors in parentheses for OLS and unconditional quantile estimations respectively. ***p<0.01,**p<0.05,*p<0.1*

TABLE 8 FINANCIAL PERFORMANCE MEASURES

Proxies for financial Performance	
Proxy 1	Profit in the month preceding the survey
Proxy 2	Value of products consumed plus money from enterprise used by household plus any money left over
Proxy 3	Sales revenue minus operating cost in the month preceding the survey
Proxy 4	Sales revenue minus depreciation cost within 12 months preceding the survey
Proxy 5	Sales revenue minus depreciation cost within 12 months preceding the survey plus output consumed by the household or given away and adjustment in depreciation, labour use, and asset sharing

Computed by author from Daniels (2001)

TABLE 9 FINANCIAL PRODUCTS CONSIDERED FOR THE FINANCIAL INCLUSION INDEX

	Formal Financial Products
1.	Loan from a Bank
2.	Own a Bank Account
3.	Coverage for Fire Insurance
4.	Coverage for Accident Insurance
5.	Coverage for Burglary Insurance
6.	Use of Mobile Money
	Informal Financial Product
7.	Savings (Susu)
8.	Risk Sharing Association

N/B: For each product listed below, the questionnaire asks whether the entrepreneur owns any of the financial products