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THE IMPACT OF FINANCIAL INCLUSION ON POVERTY REDUCTION IN SOME SELECTED SUB-SAHARAN AFRICA COUNTRIES

BY

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DECLARATION

I Elinam Attuah Ayensu, do hereby declare that this thesis is the result of my own research and has not been presented by anybody for any academic award in this or any other academic institution. All references used in this work have been duly acknowledged. I also declare my full responsibility for any shortcomings in the document.

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CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the university.

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DR. ELIKPLIMI K. AGBLOYOR DATE

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SAINT KUTTU (PHD) DATE

(SUPERVISOR)

DEDICATION

I dedicate this work to the Almighty God and all my friends, especially my family friends. I say it shall be well with you all.

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My greatest gratitude goes to the Almighty God for giving me wisdom and strength to go through this academic work. My gratitude also goes to my primary supervisor, Dr. Elikplimi K. Agbloyor, for his directions and guidance throughout this study. This work would not have been completed without his immense guidance and contributions to the study. I also thank my second supervisor, Dr. Saint Kuttu who tirelessly read my work thoroughly and pointed out all the possible errors in this work.

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ABSTRACT

This study set out to examine the impact of financial inclusion in poverty reduction in Sub-Saharan Africa. Using a representative sample of 40 countries from the region covering a period from 2010 to 2014, the study examines the level of financial inclusion among the countries in the region. Sarma's (2008) approach was used in computing the index of financial inclusion for the 40 countries in the study. The study also examines the factors that determine financial inclusion in Sub-Saharan Africa and finally, how financial access affects poverty reduction in the region. The study is quantitative in nature and made use of econometric models in the estimations.

The findings of the study indicate that, most countries in Sub-Saharan Africa have medium financial economies and over the study period, only four countries fall within the high financial economy namely: - Cabo Verde, the Seychelles, Sao Tome and Principe; and Nigeria. Secondly, the findings suggest that, Gross National Income (GNI) per capita and remittances are the main determinants of financial inclusion in the region, meaning that per capita income is the main factor for determining financial inclusion in Sub-Saharan Africa and that involuntary financial exclusion in the region may be determined greatly by inadequate household income and high-risk profile rather than market failures and weak implementation of contractual agreements. Moreover, the findings also clearly suggest that financial access does not have any meaningful impact on poverty reduction in the region but credit to private sector by domestic banks (financial depth) significantly reduced poverty in Sub-Saharan Africa.

Based on the empirical findings, the study makes the following recommendations for both policy making and implementation.

First based on the finding that per capita income is the major determinant of financial inclusion and involuntary financial exclusion is greatly influenced by insufficient household income and high risk profiling in Sub-Saharan Africa, the region's policy makers and leaders must develop policies and conduct research that centre on involuntary exclusion as it can be solved by suitable economic programmes and strategies which can be intended to increase income levels and correct market failures and imperfections.

Secondly, the various governments in the region should have policies towards reducing the rapid population growth since it reduced the level of financial inclusion. The region, as a matter of urgency must put policies in place to integrate mobile money technology fully with the formal financial system since the mobile money technology has a great potential to help the region achieve some appreciable level of financial inclusion. But currently the mobile money technology (ICT) is significantly reducing level of formal financial sector in Sub-Saharan Africa.

Finally, the findings suggest that financial inclusion in Sub-Saharan Africa does not significantly reduce poverty, but rather it is credit to the private sector (financial depth) that has significant impact of reducing poverty in the region. To lower poverty levels in Sub-Saharan Africa, policymakers should devise strategies that will resolve obstacles to financial development (financial depth). For this to be effective, the role of microfinance is very important.

CHAPTER ONE

INTRODUCTION

This chapter presents the background of the study, the problem statement, and the objectives of the study, the research questions and the significance of the study. It also discusses scope, limitations and chapter organisation of the study.

1.1 Background to the Study

The past teaches us that every country in every period faces many trials but also opportunities. Africa faces numerous challenges, comprising realizing sustainable growth to reduce income inequality, poverty and to deliver expressive employment to its young population.

Africa is said to be the subsequent fastest rising economy in the world after Asia, with an average yearly Gross Domestic Product (GDP) in excess of 5% over the last decade (AfDB, 2013). Despite the gigantic growth, the continent has reflected in the last decade, -that the benefit of such emphatic macroeconomic result is not widely spread among the countries in the continent. The majority of Africans still lives in abject poverty. According to the World Bank (2013) report on poverty 48.5% of Sub-Saharan Africans still live on less than $1.25 a day. The test for the continent's policy makers is to influence socioeconomic profits related with quick economic development. Financial inclusion is crucial as growing the poor's access to financial services is frequently measured as an operative instrument that can aid decrease in poverty and income inequality (World Bank, 2013; AfDB, 2013).

Despite thus, the financial exclusion globally is predominantly static. Latest studies have revealed that, - 2 billion adults are unbanked worldwide ((Demirgüc-Kunt et al., 2015).

However, the study has established that one out of every four adults has access to an individual bank account at a formal financial institution (Demirgüc-Kunt & Klapper, 2012). In addition,

only a small fraction of the adult population in Sub-Saharan Africa has bank account (Demirgüc-Kunt & Klapper, 2012).

According to the latest World Bank (2013) report on poverty; document that; women in particular can profit from financial inclusion creativities as they are more excluded than their men counterparts from formal financial services. To this effect, the president of the World Bank, Jim Yong Kim, has articulated hopefulness in achieving universal financial access by 2020. This is a critical effort to recognise the significant part of financial inclusion for economic growth and mitigation of income inequality and poverty (World Bank, 2014).

Furthermore, the use of official accounts differs extensively through regions, markets and distinct features. The Global Financial Inclusion Findex data for 2012 shows that 50% of grown-ups testify to owning an individual or combined account at an official financial establishment. However, whereas bank account infiltration is almost total in high-income economies, by 89% of grown-ups having an account at an official financial establishment, there are merely 41% in emerging economies. In Sub-Saharan Africa, for instance, the fraction of adults with a bank account is 24.1%, as compared to 33% for South Asia, and 39% for Latin America and the Caribbean (little book of financial inclusion, 2012). Broad access to financial services will mobilize greater household savings, organise capital for investment, increase the class of entrepreneurs, and allow more people to invest in themselves and their relatives.

However, improvements in microfinance have occupied core point in determinations to grow financial access over the past two decades. The consideration is now ever-changing to openings in restructuring formal banking systems to establish insurance, savings and loans products to the financially excepted (Karlan & Morduch, 2009). Notwithstanding the increasing interest in formal banking systems, there has until lately been limited availability of complete surveys of household usage of financial services in Sub-Saharan Africa, particularly at the cross-country level (Beck and Demirguc-Kunt, 2008).

Financial inclusion has numerous benefits for State development. Studies have revealed that communities with access to savings instruments experience improved savings, productive investments as well as consumption and female empowerment (Aportela, 1998; Ashraf, Karlan, & Yin, 2010). It also helps in poverty reduction, lessening the level of income inequality and improved private investment (Allen, Demirgüç-Kunt, Klapper, & Martinez Peria, 2012; Beck, Demirguc-Kunt, & Peria, 2007). Financial inclusion improves the fascination of remittances and eases the relocation of funds from overseas (Demirgüç-Kunt, Córdova, Pería, & Woodruff, 2011).

Again, financial inclusion also enables effective distribution of productive resources, implicitly advances the daily running of finances and guarantees a complete financial structure that can aid diminish the progress of unauthorised avenues of accessing credit which time and again have had a tendency to be manipulation (Sarma, 2012).

In spite of the important role financial inclusion plays, limited empirical studies are available which analyse the factors of financial inclusion from the microeconomic viewpoint by measuring the influences of various aspects on involvement in the official financial structure (Allen et al., 2012; Cámara et al., 2014; Efobi et al., 2014; Tuesta et al., 2015). In this study, it is very important to comprehend which socio-economic features that are promoting the use of the formal financial system, and to what point this will help to expand people's awareness of economic policies intended to inspire financial inclusion in Sub-Saharan Africa.

For instance, Allen et al., (2012) were the first to relate three indicators of financial inclusion that is: account ownership, usage of account to save and frequent use of the account. To approximate the determinants of financial inclusion using over 123 economies from the Global Financial Findex database is the most accurate to the best of my knowledge. The authors find that individual characteristics most detrimental to financial exclusion are people with lesser incomes, females, lower education and persons living in rural places. Camara et al.'s, (2014)

account related findings for Peruvian households, also recognised gender and education as aspects applicable to financial inclusion. Efobi et al., (2014) document that individual qualities such as gender, age and education meaningfully clarified banking services in Nigeria. In a similar vein, Tuesta et al., (2015) shows that in Argentina, in relation to usage, a person's level of age, education and income, all these imperative variables, define whether he/she has financial products such as a credit and/or debit card, account, formal credit and electronic payments.

In distinguishing the role financial inclusion plays on poverty reduction, to the best of my understanding; there is quite a lot of empirical works that have been done at both the micro and macro level to observe the influence of financial inclusion on poverty reduction. For example, Fadun (2014) states that financial inclusion leads to poverty mitigation and restructuring of income in Nigeria; similarly, Mishra (2012) who documents that the development of bank accounts is not definitively identified with the decline below the poverty-line in populations across states in India.

From the macroeconomic point of observation, studies that examine the connection between finance and poverty reduction links are many. For example, Jalilian and Kirkpatrick (2005) discover that the effect of financial growth on poverty decrease will only to some extent be obstructed if variation in income disparity brings about from financial growth in emerging economies. Honohan (2008) studied the effects of access to finance using household survey data from 160 economies globally, which include Sub-Saharan Africa countries and finds a relationship but no fundamental link between access to finance and poverty reduction.

On a note of the above considerations, there is the need to study the level to which financial inclusion will lower poverty in Sub-Saharan Africa.

1.2 Problem Statement

It is important to note that theories and empirical evidence have inspired the assumption that financial sector development induces poverty and income inequality curtailment. At hand, there are different opinions on the efficiency of financial inclusion in improving economic achievements in emerging economies (Williamson & Maher, 1998). However, there is an agreement that the outcomes of financial segment restructuring have remained unsatisfactory, dwindling lower than expectations. In several situations, the decision not to identify the under developed and flawed features of financial markets managed to untimely hinder deregulation, with severe contrary costs for the strength of the financial structure as a whole (Brownbridge & Kirkpatrick, 2000).

Following from the above, the marginalised in society need financial intermediation to enable them reduce the incidence of poverty and income inequality. The surest approach to inclusive development is financial inclusion in Sub-Saharan Africa. Despite the harmony in the definition of financial inclusion, a collective agreement on the technique by which it can be measured is missing. Subsequently, current research works propose diverse ways of measuring financial inclusion. Honohan (2007 and 2008), for example, construct a financial access indicator which includes section of the grown-up population in a particular economy using admission/access to official financial mediators. The combined financial access indicator was put together making use of household survey data for economies with obtainable data on financial access. For some economies, short of a household survey on financial access, the indicator was attained by using evidence on bank account numbers and Gross Domestic Product (GDP) per capita. The data used was a cross-sectional series and the best current data as the reference year, which differs through countries. Conversely, Honohan's (2007 and 2008) instrument of measure offers a snapshot of financial inclusion and may not be appropriate for variations over time and through nations.

Amidžić, Massara, and Mialou (2014) put together a financial inclusion indicator as a combined indicator of variables relating to the measurements of financial inclusion, outreach (terrestrial and demographic infiltration), usage (deposit and lending), and quality (disclosure requirement, dispute resolution, and cost of usage). All the measures were standardised, statistically recognised for each aspect of financial inclusion, and added together by using statistical weights. The aggregation method was carried out through weighted geometric means. A disadvantage derived from their method is that it put into practice a factor analysis method to decide which variables are to be part for each aspect of financial inclusion. Hence, it does not ensure full utilization of all available data for each economy. This therefore provides an avenue for further studies in this area.

Aside the indices of financial inclusion and of access, one other issue that has received substantial prominence in the financial inclusion literature is the use of the Global Financial Inclusion Findex dataset to explore the socio-economic determinants and obstacles to financial inclusion (see Demirguc Kunt & Klapper, 2012, 2013, Allen et al., 2012, Klapper & Singer, 2013, Efobi et al., 2014, Camara et al., 2014 and Tuesta et al., 2015). Some of the authors only provide the link between the individual characteristics without examining the impact they have on poverty. These studies, therefore, leave a gap to be filled on the linkage between financial inclusion and poverty reduction connection. A lot of research works have looked at the suitable instrument measures for financial inclusion together, at household and country levels, whereas some studies concentrate on the part financial access plays in reducing poverty, other studies have focussed the attention on the changing levels of financial inclusion both in sophisticated and developing economies. All the earlier studies have set the agenda in this direction and have initiate major understandings of the significance of financial inclusion on viable progress. Nevertheless, further research need to be carry out.

The question now is, what is the impact of financial inclusion on poverty reduction in Sub-Saharan Africa? It is on this basis that the study is geared towards investigating the impact of financial inclusion on poverty reduction in Sub-Saharan Africa.

1.3 Research Purpose

The purpose of the research is to study the level to which financial inclusion influence poverty in Sub-Saharan Africa. The study investigates the determinants of financial inclusion in Sub-Saharan Africa; and how financial access affect poverty in Sub-Saharan Africa.

1.4 Objectives of the Study

The key objective of the research work is to analyse the effects of financial inclusion on poverty reduction in Sub-Saharan Africa. The exact objectives are:

1. To examine the level of financial inclusion among Sub-Saharan Africa countries.

2. To examine the factors that determines financial inclusion in Sub-Saharan Africa.

3. To determine how financial access affect poverty in Sub-Saharan Africa.

1.5 Research Questions

The thesis will be guided by the following research questions:

1. What is the level of financial inclusion among Sub-Saharan Africa countries?

2. What are the determinants of financial inclusion in Sub-Saharan Africa?

3. Does financial access reduce poverty in Sub-Saharan Africa?

1.6 Significance of the Study

This study will be of relevance to researchers, practitioners and policymakers. It will add to the vast research on financial inclusion, and specifically, the impact of financial inclusion on poverty in Sub-Saharan Africa. This, to the best of my knowledge, happens to be one of the few studies that look at the linkages between financial inclusion and poverty reduction in Sub-Saharan Africa.

Secondly, development finance and development economists have a share in applying the findings of the study in fashioning out modules on how to use financial inclusion to solve poverty problems instead of the continued use of the traditional modules of growth.

Moreover, the findings of this study will be useful for policymaking concerning financial development and financial inclusion in the African continent, development organizations such as the World Bank, International Monetary Fund and African Development Bank.

1.7 Scope of the Study

The study exclusively focusses on the financial inclusion and poverty link in Sub-Saharan Africa. It excludes North African countries because North Africa and the Middle East are grouped into the same belt in World Economy. The study uses data from 40 countries that have enough data on financial inclusion.

1.8 Limitation of the Study

The study is limited to Sub-Saharan Africa. It uses country study panel data to determine the effect of financial inclusion on poverty.

1.9 Organisation of the Study

The study is placed under five chapters. Chapter One provides introduction to the study. It highlights the background and contextualisation of the study and the argument for this work, in the form of the research problem. It also highlights the questions this study intends to find answers to. Other items in this chapter include the significance of the study, and the scope and limitation of this study.

Chapter Two presents the evaluation of literature in line with this study, financial system overview in Sub-Saharan Africa, theories underpinning financial inclusion in Africa and the world at large will be reviewed.

Chapter Three of the study expatiate on the methodology for this study. It will describe the research approaches and strategies to be used, the population, samples and the sample size. It will provide the source of the data used in the study, description of the data and the means by which data can be analysed.

Chapter Four present the results of the analysed data. This chapter will also report the various discussions of these results, in relation to existing literature and the context of the study.

Finally, Chapter Five summarize the study and highlight its implications for research and practice as well as other policy implications. It will also highlight suggestions and recommendations on the study subject and the conclusion.

CHAPTER TWO

LITERATURE REVIEW

There have been a good number of scholarly articles and publications on the impact of financial inclusion on the various sectors of economies. Though the study on financial inclusion has been comprehensive, it is not exhaustible. This study will aim at exploring the extent and the impact of financial inclusion on poverty in Sub-Saharan Africa. This is a gap in literature that has to be filled with regards to the study on financial inclusion on poverty reduction in Sub-Saharan Africa. In order to achieve this objective, a review of publications from accredited researchers and scholarly articles that are relevant to the study on financial inclusion is very important.

The literature review seeks to critically analyse and examine scholarly articles and books on financial inclusion in Sub-Saharan Africa and globally. The chapter will therefore provide description, summary, and a critical evaluation of each work with the aim of achieving the research objectives.

2.1 Introduction

Chapter Two talks about the theory and empirical indication on the influence of financial inclusion on poverty lessening in Sub-Saharan Africa (SSA). This section is separated into two main fragments. The first part presents an overview of financial systems in Sub-Saharan Africa, dimensions of financial inclusion and; financial inclusion and poverty concepts. The second part discusses some key theoretical suggestions on the finance and poverty reduction nexus. It also presents empirical literature on determinants of financial inclusion and the financial inclusion and poverty reduction nexus respectively.

2.2 Theoretical Literature

2.2.1 Financial System Overview in Sub-Saharan Africa

Between 2011 and 2014, financial inclusion levels through the world have largely been enhanced. Nevertheless, financial systems in Africa have gaps and holdups like those in different emerging economies, notwithstanding the numerous intervention policies that have been put in place by international organisations like, the International Monetary Fund (IMF) and the World Bank to revive the financial sector within the past decades in SSA. According to World Bank's (2012) development indicators report, a transnational assessment of private credit to GDP which is a core indicator of financial depth confirms that a slit/split between SSA and other developing economies exists. The report indicates the proportion of private credit to GDP could be in the region of 24 percent of GDP in Sub-Saharan Africa in 2010 and 39 percent in North Africa, linked with 77 percent for all other emerging economies, and 172 percent for high income economies (Demirgüç-Kunt & Klapper, 2012). This demonstrates a huge disparity in the ratio of private credit to GDP (Financial depth) between Sub-Saharan Africa and other developing countries thereby lowering the confidence that the public has in the financial sector. Beck, Maimbo, Faye, and Trik (2011) show that the non-bank section of Africa's financial systems depicts a level that diminishes the amount of progress in the banking sector. They judge that only a small number of African countries have stock markets and merely a few of these are liquid. The World Bank Group (2012) reports that with the exclusion of South Africa, African stock exchanges are trivial as signified by the proportion of market capitalization to GDP. The report shows that the percentage of market capitalization to GDP is only 38 percent on average, as compared to 44 percent in all other developing economies and 62 percent with advanced economies.

2.2.2 The Concept of Financial Inclusion and Exclusion

Financial inclusion targets bringing the unbanked masses hooked onto the official financial systems and as a result they can have the chance to access financial services like savings, payments, and transfers to credit and insurance institutions. Financial inclusion does not suggest that everyone must make use of formal financial services, or that suppliers should neglect risks and additional costs when planning to provide services. On the other hand, deliberate exclusion and adverse risk-return features may prevent a household or a minor firm, notwithstanding uncontrolled access, from using one or extra services. Such consequences do not essentially permit policy involvement. Relatively, a course of action ingenuities ought to target and address market disappointments and remove non-market obstacles to gain access to an extensive variety of financial services (Demirguc-Kunt et al, 2008). Financial inclusion can help to make financial services more accessible to all including the poor, by ensuring that there is a robust financial market which is an element for economic growth.

2.2.3 Definition of Financial Inclusion

Prevailing works on financial inclusion have altered definitions of the idea. Several analyses ascertain financial inclusion in relations to financial exclusion, which transforms to a bigger framework of social exclusion. For instance, Legshon (1995) defines it as exclusion of some entities and humans from having admission to official financial systems, whereas Sinclair (2001) emphasises failure to have access to needed financial services in a suitable system. Alternatively, Amidžić, Massara, and Mialou (2014) and Sarma (2008) unswervingly outline financial inclusion. Amidžić, Massara, and Mialou (2014) define financial inclusion as economic behaviour where individuals and businesses are not denied access to basic financial services. An absolute financial system has a number of benefits. An inclusive financial system enables the effective administration of advantageous funds and can possibly abate the cost of capital. Moreover, admission to acceptable financial services can advisedly advance the everyday administration of finances. Comprehensive financial systems can aid in frustrating

the progress of informal sources of credit (such as moneylenders), which frequently turn out to be expensive.

The significance of an extensive financial system is well known in the policy sphere and lately financial inclusion has turned out to be a policy tool in several nations. Openings for financial inclusion have emanated from the financial controllers, the regimes and the banking industry. Legislative accomplishments have been accomplished in certain economies. For instance, in the United States of America, the Community Reinvestment Act (1997) demands banks to provide credit all over their absolute breadth of operation and forbids them from affecting only the affluent areas. In France, the law on exclusion (1998) demands a person's right to have a bank account. In the United Kingdom, a Financial Inclusion Task Force was adopted in 2005 in an adjustment to curtail the advance of financial inclusion.

World Bank Global Financial Report (2014) describes financial inclusion as the arrangement of bodies and firms that use financial services. The report add-on that absence of use does not mean lack of access. Some could accept admission to financial services but does not make use of certain financial services for the reason of cost, admitted barriers, and market failures or because of religious beliefs or cultural practices (World Bank, 2014).This study adopt the description by Sarma (2008) who believes financial inclusion is a process that guarantees easy access, availability, and use of financial services for all participants in an economy Sarma's (2008) description forms the idea of financial inclusion on a number of dimensions, comprising accessibility, availability, and usage, which can be argued independently.

2.2.4 Measurement of Financial Inclusion

Although the significance of a comprehensive financial system is generally accepted by policy makers, banks, and educational societies around the globe, empirical literature on financial inclusion do not have an inclusive standard measure that can be used to evaluate the level of financial inclusion from one economy to the other (Sarma, 2007 and 2008). The writer

acknowledges a number of indicators that have been used to specify the level of financial inclusion by different researchers. Those authors make use of indicators that include substantial deposit accounts (current and savings) seized as a share of the grown-up population (Sarma, 2008), number of loan accounts as a part of the adult population (Samantaray, 2007), as well as the number of bank branches per million people, the number of ATMs per million people, amount of bank credit, and amount of bank deposit (Sarma, 2007).

Sarma (2007 and 2008) discovered that indicators when used separately, offer only fractional evidence on the comprehensiveness of the financial system of a country. Therefore, the writer advocates a complete measure of financial inclusion that includes material on quite a lot of aspects of financial inclusion. The author maintains that a single digit measure permits cross country assessments, trends to study and assess a nation's improvement of policy ingenuities, and responding to academic problems such as relationships between economic development and financial inclusion.

In partnership with the Indian Council for Research on International Economic Relations (ICRIER), Sarma (2007 and 2008) established a strong and inclusive measure of financial inclusion that integrates information on quite a number of dimensions of financial inclusion, his measure is easy and not difficult to calculate, and it can be used to compare across nations. The measure is known as the Index of Financial Inclusion (IFI) which is comparable to some of the UNDP assessments for calculating well-established indices such as the Human Development Index (HDI) and the Gender-related Development Index (GDI). The IFI joins three basic dimensions of financial inclusion in its calculations namely depth, availability, and usage. The rest of the indices include the Eurobarometer Survey 60.2 (European Commission 2008) and the Patrick Honohan's Index of access to finance. These indices are centred on the dimension of access.

2.2.5 Benefits of Financial Inclusion

The significance of an inclusive financial system is extensively identified in the strategy circles (Sarma, 2008) and financial inclusion has developed as a strategy and main concern in several countries (Sarma, 2008). The popularity of the importance of an inclusive financial system was determined by the finding the important role of finance as one of the serious features for growth and development. This acknowledgement, together with the fact that growth alone cannot be viable, has encouraged an interest in financial inclusion among academic world, public policy makers, and scholars.

A comprehensive financial system enables effective distribution of useful funds and this can possibly lessen the cost of capital (Sarma, 2008). Financial inclusion offers an opportunity for placing the savings of the poor into the official financial intermediary scheme and station them into investment. Furthermore, the huge amounts of little charges deposits give commercial banks prospects to decrease their reliance on unpackaged deposits and aid the commercial banks to improve and succeed both in liquidity risks and asset liability disparities.

Financial Inclusion can aid to lower the progress of unceremonious channels of credit such as money lenders which are time and again seen to be unfair (Sarma, 2008). Financial inclusion safeguards the deprived from the controls of informal money lenders. Persons left out from formal financial system often depend on the informal sector to assists them with finance and frequently charged excessively high rates. It is as a result that the financially left out individuals do not have access to more credit options. Therefore, a cruel cycle of high cost finance is customary where an individual borrows at high costs and pays out a considerable share of his/her income to money lenders.

Participation in the formal financial system can considerably advance everyday managing of finances (Sarma, 2008). In economies that promote cashless economy for instance, Western Europe and North America, as well as those in evolution, the non-existence of admission to operate a bank account could indicate the variance between indebtedness and prosperity.

Individuals without accounts have it difficult to undertake individual commitments, like the settling of bills. Persons without a transaction bank account have to depend on an unsafe money centred trade that renders such individuals to open to theft and uncertainty.

Separately from the personal assistances given by financial inclusion, financial inclusion also provides benefits to financial organisations and the central bank.

Generally, this is supported by a number of hypothetical and experimental investigation studies that shows the serious role that better access to finance has in encouraging faster and impartial growth as well as sinking income disparity (Beck & Demirguc-Kunt, 2008; Honohan, 2004). This is because a well-built financial system elevates poor individuals into the formal financial system and makes such individuals participate more energetically towards their personal economic development.

2.2.6 Definition of Financial Exclusion

A study on financial exclusion has a well-defined ambience of a bigger affair of societal segregation of some sets of individuals from the official banking structure of the people. Leyshon and Thrift (1995) explain banking exclusions as any process that seeks to stop individuals, social groups and bodies from admission to the official banking system. Carbo et al. (2005) explain financial exclusion as largely the difficulty of some individual or groups to have admission to formal financial services. However, Conroy (2005), tries to define financial exclusion as a practice that exempts deprived and underprivileged social groups from having admission to the proper financial systems in their home countries. Mohan (2006) as well explains that financial exclusion is the non-existence of admission by some sections of society to appropriate, less expensive, reasonable and harmless financial packages and services from accepted suppliers. The World Bank (2014) describes intentional exclusion as a situation where part of the population or businesses decide not to make use of financial services, the reason being that they do not need them or because of their cultural or religious motives. In the other

hand, unintentional exclusion occurs when individuals are suffering from insufficient income and have high risk profile or because of selective market failures and imperfections

2.2.7 Dimensions of Financial Inclusion

The agenda of financial inclusion has absolutely influenced decisions of policymakers such as the World Bank, the Consultative Group to Assist the Poor (CGAP), Asia Development Bank, African Development Bank, International Monetary Fund (IMF) and governments of some Sub-Saharan Africa countries to ensure the need for inclusiveness in the financial sector. The primary appearance to defining the degree of financial inclusion is to recognise the instruments that admit the smooth availability, usage and superior advantage of financial services in an economy. Policymakers essentially need dependable affirmations about the level of present inclusiveness in their corresponding countries, for this is imperative to structure policies and plans to eradicate obstacles to financial inclusion. The Alliance for Financial Inclusion (2012) views financial inclusion as multi-dimensional. To them, individuals and enterprises are classified into different divisions, whether included or not. By the purpose of outlining a more absolute abstraction of attachment, the Financial Inclusion Data Working Group (FIDWG) of the Alliance for Financial Inclusion (AFI) has settled on three key ambits of financial inclusion that act on the advancement of data gathering. They are access, usage and quality. The group documents that the accepting of a broader and multidimensional definition of financial inclusion is basic to modifying the notion accepting that inclusion will unavoidably be accomplished through the offering of sufficient access points.

The ambit of financial inclusion are ample categories in which indicators can be grouped, without being cramping. The ambit simply gives a framework to policymakers in developing robust measurement strategies that reflect the multi-dimensional attributes of financial inclusion. Contained by this framework, policymakers will still be in charge structure a set of indicators acceptable to their needs and level of assets in their individual countries. The World

Bank Report (2012) on financial inclusion strategies accommodate abundant descriptions on access, usage and quality dimensions of financial inclusion including a fourth dimension which is the impact of firms and household. A detailed discussion is stated below:

Access: the possibility to use absolute financial services and packages from official organisations. Accepting intensities of access could need intuition into and analysis of attainable obstacles to having and using a bank account for any drive, such as charges and closeness of bank service points (for example, branches and ATMs). An appropriate straightforward alternative for access can be accomplished by counting the number of accounts that are opened through financial institutions and approximating the percentage of the citizenry with an account.

Quality: the adaptation of the financial service or product to the accepted needs of the consumer. Quality involves the captivation of the consumer, accustomed in outlooks and angle in the administration of those products that are presently attainable to them. The degree of appropriate quality would be acclimated to admeasurement the attributes and assimilation of the link as part of the financial service supplier and the end user as well as the selections attainable and consumers' stages of indulgent of those selections and their consequences.

Usage: Outside the fundamental acceptance of banking services, usage centres extra on the perpetuity and assimilation of financial products and use. Therefore, defining usage needs added details about the consistency, occurrence, and aeon of use over time. To measure usage, it is necessary that information reveals the user's point of view, that is, data accumulated from a demand-side survey.

Impact: barometer variations in the lives of consumers that can be adjusted to the usage of a financial device or product pose astringent procedural tests to the survey design. This advice

can be acquired either from the demand side, that is, at the individual, household, or firm level, or from the supply side, that is, at the level of a financial institution, or from a mixture of both.

2.2.8 Concept of Poverty

Generally, poverty has been connected to income, which remains the fundamental of the concept today. Conversely, income in itself is no less difficult a concept than poverty it has to be cautiously and specifically explained. Other properties such as assets, income in kind and support of public services and employment should be credited to attain a complete but precise measure of income.

Poverty in Sub-Saharan Africa (SSA) is extremely persistent. Quite a lot of attempts have been made by governments and development organizations such as the World Bank, Non-Governmental Organizations (NGOs), and the International Monetary Fund (IMF) to influence it by developing poverty reduction strategies (Chakravarty & D'Ambrosio, 2013). According to the World Bank (2013) currently, 48.5% of the population in SSA live on less than $1.25 a day, and 69.9% live on less than $2.00 per day (World Bank, 2013). The report stresses that with slight above 910 million persons existing in the region, and still more than half of that population of Africans below the poverty line.

Many of the definitions recognize poverty to be a multidimensional concept. David and Timothy (2002) define poverty the absence of resources comparative to needs. Foster (1998) also reasons that in order to operationalize the definition of poverty, an inception should be defined in terms of absolute and relative poverty. To the researcher, in the case of absolute poverty, a group-specific absolute poverty line or threshold (food, clothing, healthcare and shelter) is defined based on the resources needed to maintain basic needs among the group; while relative poverty, refers to a belief of living standard for the income distribution such as mean, median or other quintiles that define the cut off as some percentage of this standard.

2.2.8.1 Measurement of Poverty

There are various measurements of poverty, noticeable among them are, the poverty headcount which is measured by headcount, H, whose incomes fall below the absolute poverty threshold. The World Bank (2008) pitches in to the absolute nature of poverty and explains severe poverty as living on less than $1.25 a day Purchasing Power Parity (PPP), and moderate poverty as less than $2 a day. The headcount ratio on the other hand measures the fraction of the population under the poverty line. The Human Poverty Index (HPI) compiled by the UNDP in 2006 is an additional measure of poverty. It measures poverty in three areas of deprivation. These comprise life, basic education and economic provision. The 2006 UNDP report states that there is evidence of poverty when one dies before age forty (40). In respect of basic education, the report measures the fraction of adults who are illiterate and finally for the economic provision, it measures the fraction of people without access to safe water and the fraction of children underweight. A further measure of poverty is the Multi-Dimensional Poverty Index (MPI) which revolves around the three measurements of poverty just like the Human Poverty Index (HPI). The difference is that while HPI concentrates on aggregate level data, MPI concentrates on individual level data thereby directly concentrated on poverty measurement. The three levels it concentrates on include health, education and living standards.

2.2.8.2 Measurement of Inequality

Inequality is concerned with the dissemination of income. There are two main types of measurement of inequality. These are size/personal distribution of income and practical distribution of income (distributive factor shares of income). Functional distribution measures the share of income amassing to various factors of production namely labour, land, capital and entrepreneurship. That of size/personal distribution of income deals with total income of individuals or households regardless of sources. It is the greatest common measure used for inequality, and it naturally arranges individuals/households by ascending order of income and divides total population into distinct groups. Examples are quintiles and deciles as shares of

income, Lorenz curve and Gini coefficient. Other examples include Theil index, Atkinson index.

2.2.9 Theoretical Argument on Finance, Poverty and Inequality

It is clear in the literature that a proficient, well-functioning and active financial system is an essential condition for long term economic growth. Schumpeter (1911) debated that financial intermediation through banking contributes a major part in economic growth thereby ensuring productivity, technical change and an active financial sector and the distribution of savings through two channels. Firstly, these policies make credit cheaper, boost, entrepreneurial activities, generate employment opportunities and enhance the welfare of the poor. Secondly, the availability of credit at cheaper cost can provide crucial abutment to the financial weaker area by allowing them to invest in health, apprenticeship and advance the life of their children and enhance the human capital of the economy which improves the income distribution. More followers of the concept that finance may promote growth consist of Goldsmith (1969) and McKinnon (1973). They absolutely agree in their suggestions that finance can promote growth by inspiring technological novelty and level before any growth can be attained, or technological development made, however, the obtainability of finance is imperative.

Robinson (1952) proposed a conflicting argument that advocated that where enterprise tops, finance only keeps an eye on promising a demand-led hypothesis. This assumption advocates that finance just transforms an economy from low to high growth areas and even if finance is absence, economic growth could still be accomplished from low value areas such as agriculture.

With two opposing hitherto reasonable theoretic opinions, another assumption also exists in the literature. At the same time as, a well-designed financial system may drive technological change and increased economic growth, this economic development may be an aftereffect of the demand for financial services causing a bi-causal link among finance and growth.

An endogenous growth model proposed by Pagano (1993) states the possible methods through which financial expansion may influence growth. The skill to assess cost-effective investments is a crucial role of financial mediators. Goldsmith (1969), and Greenwood and Jovanovich (1990) reiterate that, the higher adequacy financial institutions in accepting and meting out advice about investments at the bargain cost permits credit to be focussed on the best capable entrepreneurs/firms, that will present new enhanced products and production processes.

Ravallion (1997) argues that the growth elasticity altercation and induced-growth altercation add to new approaches and empirics. The two arguments he put forwards were taken to appraise how antecedent household income administration impacts advance in limiting poverty. By invoking the Gini index, his results specify that higher inequality tends to crave a lower rate of poverty abridgement at any accustomed absolute rate of growth. The researcher sums it up by arguing that antecedent distribution does not affect how abundant the poor can get to improve average incomes.

2.3 Empirical Literature

2.3.1 Empirical Evidence

The empiric evidence on the finance-growth link starts by a research done by King and Levine (1997). The findings of their work authenticate an absolute link between finance and growth. They used a dataset comprising eighty economies from 1960 to 1989, the writers ascertain that the original stages of financial expansion anticipation alternating growth rate through the thirty-year period.

Examining the trend of affiliation between finance and growth has been studied by a number of researchers, (Demetriades & Hussein (1996); Arestis & Demetriades (1997); Rousseau & Watchel (1998)). Even admitting advancement is varied on its trend, the supply-led hypothesis inclines to be preferred. Demetriades and Hussein (1996) ascertain slight provision for the

demand-led hypothesis, admitting a bi-causal link is realised in seven countries from their absolute sample of sixteen. Arestis & Demetriades (1997) measure financial progress by containing both bank based and market based variables. Their findings advance that; countries that support an intermediate centred financial systemt such as Germany, follow the supply-led hypothesis, at the same time as countries that support a market centred financial system, such as the United States follow the demand-led hypothesis. Rousseau & Watchel (1998) after-effects shows that when finance was not sophisticated, in the advance of accelerated industrialisation (1870-1929), finance accord the abstraction to advance growth providing to the supply-led hypothesis.

Beck et al. (2000) make use of legal backgrounds as influential variables in their work and authenticate that finance has an accelerating influence on absolute factor productivity growth, which aliment through to general GDP growth. Graf (2002) use a dynamic panel analysis and indicates that finance counted for growth over twenty-year period from 1970-1990, nonetheless the writer as well indicates that the supply-led hypothesis is far from abiding and may have been motivated by certain periods in his work. Rioja & Valev (2004) add to the existing studies by finding the impacts of finance on growth vary subject to the level of a nation's economic progress. The results from their work suggest that; for low income economies, the impact of financial development on economic growth is mostly through the capital accumulation channel, whilst for middle and high-income economies, it adds abundantly through improved productivity growth.

Demetriades and James (2011) research finance and growth in Africa, one of the world's fastest growing continent. Their results to literature indicates that the relationship between financial development and economic growth may be region specific.

In Africa, the writers' findings suggest that as earnings increase, savings are absolutely mobilised, as bank balance sheet grow. Conversely, these savings are not channelled and

offered as loans due to information irregularities and brittle contract execution in Africa, stopping finance from causing growth.

Financial development can be aggregate into two, bank based and market based development, Levine (2002). Demeriguc-Kunt and Levine (1996) find that bank based financial systems, like those in Germany and Japan have associated growth rate to nations that are serviced mostly by a market based system, for instance the United Kingdom and the United States of America. Nevertheless, the writers' find that the two structures match one another and countries with superior stock markets are inclined to have better banks.

Regardless of this, the broadly captivated empiric confirmation illustrates that there is a positive linkage between financial development and income per capita. Furthermore, if growth is comprehensive to all citizens globally, it may appropriately play a role in reducing poverty and inequality.

2.3.2 Determinants of Financial Inclusion

This part discusses the determinants of financial inclusion affirmation in the financial inclusion literature. It is done forth some key studies that studied financial inclusion and its determinants.

Demirguc-Kunt and Klapper (2012) provide the original analysis of the Findex Data, a first-hand set of indicators that extent absolutely how adults in 148 countries covering across over 150,000 individuals save, borrow, accomplish payments and cope with risk. The data shows that 50% of adults globally have an account at an official financial institution, however account infiltration differs extensively through regions, income groups and individuals features. Demirguc-Kunt and Klapper (2012) note that although 50% of adults all over the world stayed unbanked, of at least 35 percent of them indicate obstacles to account use that might be addressed by public policy. In the midst of the most frequently declared obstacles were high cost, physical disengagement and absence of authentic records. These early studies by the

authors on the data set alone offers a description of the condition without testing for statistical significance.

Allen et al., (2012) with a number of probit models for 123 economies for both individual and country specific characteristics, shows that enhanced ownership and usage of accounts is accompanied with an improved supporting environment for accepting access to financial services such as lower account costs and more closeness to financial mediators. The writers indicate that policies directed to encourage inclusion such as necessitating banks to give basic or low-fee accounts, excusing some depositors from burdensome records requirements, accede to correspondent banking, and using bank accounts to accomplish government payments are decidedly effective between those most likely to be excepted. Lastly, the writers study the issues associated with declared barriers to account ownership among those who are financially excluded and documented that these individuals report lower barriers in nations with lower cost of accounts and better infiltration of financial service suppliers. There is weakness in their study, which is their disability to account for regional dynamics, therefore conclusions drawn from it may not be applicable. This is because authoritative institutions in these countries or economic zones vary from each other.

In examining an overview of financial inclusion in Africa using descriptive statistics Demirgüç-Kunt and Klapper (2012), show that less than a quarter of adults in Africa have an account with a formal financial institution and that a lot of adults in Africa use informal means to save and borrow money. Thus, 23% of adult Africans have accounts at any formal financial institution and about 77% remained unbanked (do not have bank account at a formal financial institution). Likewise, they note that the bulk of small and medium enterprises in Africa are unbanked and access to finance is a main challenge. Matched to other emerging economies, the writers indicate that high-growth small and medium enterprises in Africa are less likely to use formal financing, which means formal financial systems are not confined the needs of

enterprises with growth openings. Their study only provides descriptions of the problem without testing for statistical significance.

Anson, Berthaud, Klapper and Singer (2013) studied financial inclusion and the role of the post office. By controlling for both individual and country fixed effects for 60 countries, they report that post offices are reasonably more likely than traditional financial institutions to offer accounts to individuals who are most likely to be from financially helpless groups, such as the poor, less educated, and those out of the labour force. The writers also suggest that post offices can increase account ownership by temporary as cash merchants for transactional financial services, such as electronic payments and remittance and that partnerships between the post office and other financial institutions overlap with a higher bank account penetration.

Demirgüç-Kunt, Klapper, and Singer (2013) studied financial inclusion and legal discrimination among women from emerging countries. The results from their probit models and ordinary least squares (OLS) regressions demonstrate that individual characteristics such as income, education, employment status, rural residency, age and gender remain considerably correlated to usage of financial services. The writers also find that legal perception contrary to women and gender norms may explain some of the cross- countries disparity in access to finance by women. They observe that in countries where women face legal boundaries in their ability to work, head a household, choose where to live and receive inheritance, women are less likely to own an account, comparative to men, as well as to save and borrow money. Their findings also confirm that displays of gender norms, such as the level of violence against women and the occurrence of premature marriage for women, contribute to clarifying the difference in the use of financial services between men and women, after controlling for other individual and country characteristics.

Demirguc-Kunt, Klapper, and Randall (2013) studied Islamic finance and financial inclusion among Muslims adults in 65 countries. Their analysis shows that Muslims are considerably less likely to own a formal account or save at a formal financial institution than non-Muslims

after adjusting for certain individual and country level characteristics. In addition, the study finds no evidence that Muslims are less likely than non-Muslims to use formal or informal borrowing.

Aterido, Beck, and Iacovone (2013) measured gender variances in the use of finance by household and enterprises in SSA using multivariate regressions. Their findings show that some proof about the presence of an unrestricted gender gap, once they controlled for firms and household features. They found no extra proof of a restricted gender gap either for enterprises or persons. After controlling for a group of features such as size, industry, ownership type, foreign involvement, export status, and age, enterprises with female ownership involvement in Sub-Saharan Africa use as much as external financing as enterprises devoid of female ownership involvement and female individuals are as likely to use formal financial services as male individuals. They settled that women are deprived in involvement in the labour force and education, which has consequences for their participation in the contemporary market economy, including the formal financial sector. They claim that policies to increase access to financial services by women have to be addressed if women are to secure the advantage of financial services as much as men. These findings propose the requirement for extra new methods for banks to spread out to female customers that do not meet the requirement for formal banking services centred on outmoded features.

In evaluating the part of familiarity in financial inclusion in Africa, Klapper and Singer (2013) find related claims made by Demirguc-Kunt and Klapper (2012) that fewer than a quarter of Africa adult population have formal accounts, and many Africans use informal methods in saving and borrowing. When the writers used probit regressions models on three indicators of financial inclusion such as account ownership, savings and credit, their findings also sanction earlier studies with regard to account ownership, using univariate analysis and indicate that women, poorer and less educated individuals, those living in rural areas and of middle age are more unlikely to have an account. Their findings also disclose that employment prominence is

an important determining factor of account ownership. They show that adults engaged by an owner are more expected to own an account than those who are entrepreneurial and at the same time those jobless or out of the labour force are less expected than the self-employed to own an account.

In investigating factors that determine financial inclusion in Peru, Camara *et al.,* (2014) confirm earlier results that more weak groups of people such as women, persons living in countryside areas and young persons are those with the extreme difficulties in gaining access to the formal financial system. They show that in terms of financial products, loans and mortgages there seem to be better improved drivers of financial inclusion than saving products. This endorses the fact that financial inclusion factors go beyond only having access to formal accounts and savings to encompass access to loans and mortgages. On the aspect of the enterprises, Camara *et al.,* (2014) emphasize that rigidity and education stand out as important features for financial inclusion. They claim that for persons excluded from the financial system, elements such as age, gender, education and income level seem to disturb opinion of the hurdles to financial inclusion. On the aspect of policy, the writers note that credentials of distinct characteristics that could affect financial inclusion offers useful observed proof for crafty policies that help more inclusive financial systems.

In applying micro-econometric approach, Efobi *et al.*, (2014) study access to and use of banking services by individuals in Nigeria using the financial inclusion data from Global Findex 2011. Their findings shown among others that individual ‘s attributes such as gender, age and education significantly clarified banking services in Nigeria. They also find that income and ICT disposition are significant in clarifying the use of bank services in Nigeria. Individuals dwellings such as urban and rural and the distance of the resident of the respondent to banks were not provided by Gallup World Poll and these were limitations to their study considering the framework they designed and the fact that they intended to use these social factors for robustness checks. They however, conclude that despite the above limitations, the

study is worthwhile for policy making in Nigeria and other African countries on issues associated to financial access and inclusion.

In addition, with regard to credit, the multinomial regressions show that income, age, education and engagement status are statistically considerably correlated to the log-odds ratio of using formal credit as associated to not using any credit. Klapper and Singer (2013) also show evidence that for formal savings, there is no statistically important link between gender and formal credit regardless of the predictable important variation by gender in the univariate setting. This is attributed to the fact that, there is squat level of formal credit in Africa and the fact that gender variations manifest themselves incidentally through income, education and employment status. Nevertheless, gender is considerably adversely correlated to the log-odds ratio of using only informal credit, compared to using no credit. They also revealed that informal credit has no statistically important connection with income, proposing that credit from informal avenues, such as family and friends, the key basis of credit in Africa and through emerging nations, is similarly reachable to all.

2.3.3 Remittances and Financial Inclusion

Recently, the importance of remittances on access and the use of financial services has gained a lot of consideration and has become a primary focus in development policy. Many studies show that remittances are correlated with indicators of financial development. For instance, Giuliano and Ruiz-Arranz (2005) found a robust positive impact of remittance on financial development. Moreover, threshold analyses reveal that remittances appear to substitute for a well-developed financial system by promoting growth more robustly in those countries with weak financial systems.

A recent work by Aga and Martinez Peria (2014) with data from about 10,000 households in some selected Sub-Sahara Africa countries postulates that international remittances from migrants to the countries under consideration have the tendency to increase the use of a formal account in the home countries. This affirmed the study by Ambrosius (2012) that established a

correlation between remittance and financial development. It was observed that, remittances have a significant effect on the ownership of a savings account and availability of borrowing and serve as a catalyst for access to finance in poor rural households. Aggarwal et al. (2010) also found that remittances may influence the growth of financial development in recipient countries. This is because financial institutions may persuade the recipient of remittance to convert the remittance received as deposits when these remittances are channelled through the banking system. This will make enough funds available for commercial banks for lending purposes to the private sector of the economy. It was however noted that distance and the income level of the households are significant economic factors in explaining the receipt of remittances (Adam, 2006). Anzoategui et al. (2014), however, did not find any relationship between remittances and the loan outcome of households, though there is a positive correlation with deposit accounts of households. The positive relationship between remittances and financial development complements financial intermediation and therefore lead to an increase in savings of households. The rise in savings as a result of remittances and the intermediation role they play in the financial sector help in the efficient allocation of resources (Ojapinwa & Bashorun, 2014). Woodruff and Zenteno (2004) believe that remittances do not only enhance financial development but promote entrepreneurial activities as well. This was arrived at after their research found that remittances help in relaxing the financial constraints for small business especially in developing countries. The relaxation in financial constraint is due to the fact that remittances increase the size of the financial sector and reduces overhead cost and the margin of interest (Cooray, 2012). Remittances also play a significant role in solving the liquidity constraint and provide alternative way of financing investment in most developing countries (Giuliano & Ruiz-Arranz, 2009).

A different line of research from Coulibaly (2015) postulates that though remittances may positively impact financial development in some countries, financial sectors in other countries may not have any significant impact as a result of remittances. This and other factors are the

reason why Mexico, though the second receiver of remittances in the world, places more emphasis on interest rates and inflation than on remittances in economic decision making (Ruiz & Vargas-Silva, 2010).

2.3.4 Channels of Remittances

Remittance flow and fund transfers have become a growing area of interest among scholars and researchers as well as international policy makers in recent times. Irving, Bonaparte and Ratha (2010) indicated that remittances from migrants to households provide the most tangible and least contentious relation between migration and development, and also have the potential to reduce poverty and other UN Millennium Development Goals. It has then become very vital to know the means of remittances and funds transfer, so as to enhance transparency and accountability.

Remittances may either take the formal or the informal channel. Formal channels may include cash transfers that is usually based on personal relationships through business people, or carried out by courier companies, friends, relatives or oneself. The international standard sector on anti-money laundering and combating the financing of terrorism (AML/CFT), FATF generally describes "Formal" funds transfer systems as those included in the regulated financial system, leaving all other method of "Informal" category. In Hernández-Coss's (2005) work, he described formal institutions that aid in remittances transfers as those that are supervised by government agencies and laws that determine their creation, characteristics, operations, and closure.

The informal channel, on the other hand, is defined as all types of remittances transfer services that do not involve formal contracts, and hence are not likely to be recorded in national accounts (Freund & Spatafora, 2005) thereby comprising 10% to 50% of the total remittances (Ratha ,2003; El-Qorchi et.al, 2003). Maimbo & Ratha, (2005) indicated that informal channels charge fees under 1% of how much is been charged at the formal channel. In Bangladesh, for

instance, Siddiqui (2003) concluded that the cost of informal channel is 45 percent of the formal channel. Freund and Spatafora (2008) also showed that the negative impact of transaction cost in most cases influences migrants' decisions to use the informal channel of remittance. Hernández-Coss (2005) found many other factors that influence the choice of the informal channel which include relatively higher cost of sending money through the formal system, intention to evade taxes, strict government regulations and many others. In a survey conducted in 176 countries worldwide by Irving, Bonaparte and Ratha (2010) in remittance receiving countries and remittance-source countries, it was confirmed that high cost is perceived to be the top single factor hindering migrants from using formal channel. Other factors cited by respondents include mistrust of or lack of information about financial systems, products, and channels. Irving et.al (2010) identifies cultural and cost factors to be some of the important factors that influence the use of informal channels. Sending remittances with co-ethics is perceived to strengthen the social relations that exist between friends and family. The paper concluded that high cost of transfers, dual exchange rate for money transfers, and lack of legal documentation for formal transaction by remittance-sender migrants are considered as the main reason why migrants will opt for informal channel. Freund and Spatafora (2008) saw that recorded remittance is significantly influenced by the stock of migrants and the transaction cost of remittance. High transfer cost reduces the money sent home by migrants. This implies that migrants use informal method to transfer money or refuse to transfer money.

2.3.5 Finance and Poverty Reduction

Though the finance-growth connection has been thoroughly studied, current consideration has been focussed on how the role of formal financial institutions may lessen poverty. Not many studies have been done on the direct effect of financial inclusion on poverty reduction in both developed and developing countries at either the macro or micro level. Few of the studies are based on the linkages between, financial access and poverty, financial development and poverty, finance, growth and poverty reduction and microfinance and poverty.

Theoretically, Rajan and Zingales (2003) propose that a strong financial system permits for rivalry to develop which may weaken the power of dominant officeholders. Thus, changing from a restricted and collegial financial system that is full of factions, may permit underprivileged family circle and small industries to flourish. Additionally, if deficient capital markets are accountable for satisfying an untiring class of poor families, financial development may eliminate such deficiencies and reduce income inequality and poverty.

Levine (2008) makes available an academic theory of how finance may ease poverty and lessen disparity through intergenerational movements. If the poor are presented with financial access, then by funding education and business activities, they may escape poverty.

For example, Jalilian and Kirkpatrick (2002, 2005) evaluated the effect of financial development on poverty declining in both developed and developing countries using data by Dollar and Kraay (2002). They discovered that the financial sector development policy adds to poverty decrease after controlling for key macro-economic variables such as inflation rate, share of trade and government spending. They also discovered that the effect of financial development on poverty reduction will be affected, only by any change in income inequality occasioning from financial development.

However, they were not capable to plainly outline their measurement of the financial development. One can assume from their measure of financial sector development using income growth and enhanced supply of access to financial services to the poor as component of financial inclusion. Again, they used the Gini concentration ratio to substitution for inequality, which evidently displays some likeness of poverty lessening measure.

Financial development may prevent poverty for a while by giving the poor an opportunity to consumption smooth during predicament. The capacity to withdraw savings from financial institutions may stop a family from dropping below the poverty line in an economic disaster. Additionally, if a household is credit commendable, they may be able to borrow and check the passing of the household. Financial mediators permit safe storage of accrued savings/assets,

which are secured from stealing and are very liquid. In lack of financial mediators, the poor store their wealth in grains, livestock, jewellery or other physical assets, Rosenzweig & Wolpin (1993).

Investigating the part of economic development may have on the poor's wellbeing, Dhejia & Gatti (2005) find credit access may decrease child labour. The writers propose that in the lack of credit markets, households use child labour as a temporary solution to level transitory income shocks.

While controlling for certain characteristics such as lack of depth of private banking credit, inflation rate and others, Honohan (2008) examined the effect of access to finance using over 160 countries worldwide including SSA and finds a relationship but not an underlying link between access to finance and poverty reduction. His outcomes are somewhat in agreement with Rewilak (2013) who finds that financial development may ease poverty but not entirely. His model is likely to suffer from endogeneity bias since he did not control for likely simultaneity predispositions.

Akhter and Daly (2009), examined the role of financial development on poverty reduction in 54 developing countries using Fixed Effect Vector Decomposition Model (FEVD) and find that financial development is conducive to poverty reduction but the instability accompanying financial development is detrimental to the poor. They also posit that there is a positive relationship between financial development and financial instability in those countries. One of the weaknesses of their model is that they do not consider simultaneous bias in the model which can lead to endogeneity problems.

Imai et al. (2010) look at the impact of microfinance institutions (MFIs) on poverty decrease in India using cross-sectional data and find that loans for productive resolutions were more key for poverty reduction in rural than in urban areas. They also find that living in urban areas, with simple access to MFIs, has bigger average poverty-reducing effects than the access to loans from MFIs for productive purposes. Their outcomes propose that the occurrence of

microfinance institutions permits the rural poor to have access to financial services such as loans which could assist in reducing their poverty level when applied correctly. Access is an important element of financial inclusion so the influence of MFIs through access to the rural poor is an indicator of financial inclusion. Imai, Gaiha, Thapa, and Annim (2012) once more observe the effect of microfinance institutions on poverty reduction in Latin America and the Caribbean using cross-sectional and panel data and find that microfinance institutions significantly reduce poverty at the macro level.

By means of penal least squares (PLS) and GMM Swamy (2014) studied financial inclusion, gender dimension and economic impact on poor households in India using cross-sectional and time series data. The study shows that overall, women's involvement has improved household income by 16.23% on average in India. He also discovered that gender matters in the impact of financial inclusion programmes for the poor. The researcher noticed that income growth (CAGR) net of inflation effect was 8.40% for women as against 3.97% for men, showing that the contributing female poor undeniably affect the outcomes of financial inclusion programmes. His outcomes therefore propose that financial inclusion is significant in poverty reduction for poor households in India.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter refer to the methodology used in the study. It gives an idea of the research process, the technique that was employed and the tools needed to arrive at the research objectives. In essence, this chapter describes the data used in the research, the source of the data, the methodology that was employed on the data and the justification for the choice of the method. The chapter begins with the estimation technique (methodology) that is employed on the data and justifies the choice of the method, the specification of the model, and then goes ahead to define the various variables used in the model. The sample data that is used in the study as well as the sources of the data are explained. Finally, in this chapter, the techniques and data analysis tools are detailed.

3.1 Estimation Technique

The Hausman test is also described as a test for model misspecification. In panel data analysis, the Hausman test help in choosing between fixed effects model or a random effects model. The null hypothesis is that the preferred model is random effect; the alternative hypothesis is that the model is fixed effects. The purpose essentially is that, the tests looks to find if there exist a correlation between the unique errors and the independent variables in the models.

The null hypothesis is that there is no correlation between the two. Interpreting the result from a Hausman test is straight forward. If the p-value is less than 0.05, reject the null hypothesis.

This study employed random effects model for the first model in the study since its p-value (0.1011) is greater than 0.05. Fixed effects model was used in the study for the second model in the study since its p-value (0.0193) is less than 0.05.

The study therefore makes use of an econometric model with a financial inclusion index (IFI), a multi-dimensional poverty index (MPI) from the UNDP database as the dependent variables and demographic structures, governance indicators and macroeconomic variables as independent variables.

The general form of the model can be specified as:

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

Where the subscript i denotes the cross-sectional dimension and t represents the time series dimension. The left-hand variable, Y_{it} represents the dependent variable in the model while X_{it} contains the set of independent variables in the estimation model, α is the constant and β represents the coefficients. ε_{it} is the error term.

3.1.1 Index of Financial Inclusion (IFI)

Before testing for the significance of financial inclusion in reducing poverty in Sub-Saharan Africa, the research first computed the financial inclusion index. The calculation of the index of financial inclusion (IFI) strictly follow the procedure of Sarma (2008). The reason for adopting Sarma's (2008) approach is that a lot of indicators have been used in accessing the level of financial inclusion. The frequently used indicator has been the number of bank accounts. Some other indicators are number of bank branches, number of ATMs, amount of bank credit and amount of bank deposit. Such indicators, while used separately, only gives limited information on the inclusiveness of the financial system of an economy. Using separate indicators can lead to a misrepresentative understanding of the scope of financial inclusion in an economy. Thus, a widespread measure, such as the index suggested by Sarma (2008), is needed. A widespread measure of financial inclusion should be capable of including information on a number of aspects of financial inclusion, if possible in one single digit. Such a measure can be used to match the levels of financial inclusion across economies at a specific

point in time. It can also be used to observe the growth of policy ingenuities for financial inclusion in a country over a period of time. Precisely, number of bank accounts per 1,000 automated teller machines (ATM) per 100,000 adults, commercial bank branches per 100,000 adults, borrowers from commercial banks per 1,000 adults, depositors with commercial banks per 1,000 adults, and domestic credit to GDP ratio were used. The first measure relates to access as a dimension of financial inclusion, the second and third measures are related to availability of banking services as a dimension of financial inclusion, while the rest are related to the usage of financial inclusion. And each indicator for each country represents the mean value from 2010 to 2014. Period average values were used as a substitute for focussing on a particular year, to avoid yearly deviations and to bring on board as many countries as possible. In total, data for 40 countries were obtained for Sub-Saharan African economies.

A dimension index for each of these dimensions has been first calculated after calculating the period average for each financial inclusion index for 40 economies. The dimension index was computed following the specification of Sarma (2008), where the dimension index for ith dimension d_i is derived as:

$$d_i = \frac{A_i - m_i}{M_i - m_i} \qquad (1)$$

Where A_i is the actual value of dimension i, m_i is the minimum value of dimension i, M_i is the maximum value of dimension i. For the availability dimension, two separate indexes are first computed; one for bank branch and the other one for ATMs. A weighted average of these two indexes, using 2/3rd weight for bank and 1/3 weight for ATM index is measured as the index for the availability dimension. The index of financial inclusion for economy i is then restrained by the normalized inverse of the Euclidean distance of point d_i calculated in Equation (1) from the perfect point I which is equal to 1. Precisely, the method is specified by:

$$\text{IFI} = 1 - \frac{\sqrt{((1-d_1)^2 + (1-d_2)^2 + \cdots (1-d_n)^2)}}{\sqrt{n}} \qquad (2)$$

Where the second term of the numerator in Equation (2) is the Euclidean distance from a perfect point, standardising it by the square root of the number of dimensions and deducting it from 1, giving the reverse standardised distance. The indicator is standardised in direction to make the calculated figures fall between 0 and 1, where 1 relates to complete financial inclusion and 0 represent total financial exclusion. The normalization is done in direction to make the value lie between 0 and 1; and the inverse distance is restrained so that greater value of IFI matches to greater financial inclusion.

3.2 Empirical Models

The study sought to find the impact of financial inclusion on poverty reduction in Sub-Saharan Africa based on demographic structure, macroeconomic and governance indicator. The nature of the data involved required the use of the Ordinary Least Square (OLS) regression method in order to attain the set objectives. The models adopted and modified certain variables as used by Honohan (2008). The first model (model 1) determines the determinants of financial inclusion and the second model (model 2) is used in examining whether or not financial accessibility reduce poverty in the selected Sub-Saharan Africa Countries.

Model 1

$$IFI_{it}=\alpha_i+\beta_1 In\ GNI_{it}+\beta_2 Rule\ of\ law_{it}+\beta_3 lnPop_{it}+\beta_4 lnEdu_{it}+\beta_5 lnICT_{it}+\beta_6 lnRemitt_{it}+\beta_7 Lower\ economy\ dummy_{it}+\beta_8 Age_{it}+\varepsilon_{it}$$

Where;

IFI =Index of Financial Inclusion

Pop=total population

GNI = Gross National Income (per capita)

Age=Age dependency ratio

ICT=Mobile Phone ownership

Remitt=personal remittance received

Edu=Primary education completion

Model 2

$$MPI_{it} = \alpha_i + \beta_{1IFI_{it}} + \beta_2 Rule\ of\ law_{it} + \beta_3 inflation_{it} + \beta_4 lnEdu_{it} + \beta_5 lnEmploy_{it} + \beta_6 lnCrps_{it} + \beta_7 lnRemitt_{it} + \beta_9 Growth_{it} + \varepsilon_{it}$$

Where;

IFI = Financial Inclusion Indicator

MPI=Multi-dimensional Poverty Index

Growth=GDP growth rate

Edu=primary education completion

Crps=Credit to private sector from domestic banks

Remitt=Remittances received by individuals

Employ=total employment

3.3 Variable Definitions

The variables that were used in the study are broadly grouped under two main sub-headings; the dependent and the independent variables. The independent variables, which are also known as the predictor variables, are of a demographic structure, governance indicator, human development indicators and macroeconomic variables. The Index of Financial inclusion also serve as independent variables in order to attain the last objective of the study in determining how financial access affect poverty in Sub-Saharan Africa.

3.3.1 Independent Variables

The independent variables that were used in the models can broadly be grouped into three main categories, namely; demographic structure, governance indicator, and macroeconomic variables.

The independent variables included in the study includes;

Primary education completion rate that is the percentage of students who has finished the last year of primary school, expressed as a proportion of related age groups.

Personal total remittances received measured in United State dollars, total employment measured on the total working population.

Rule of law which comprises sentiments of the degree to which representatives have assurance of and stand by the rules of society, and specifically the excellence of agreement implementation, property rights, the police, and the courts as well as the likelihood of criminality and violence. Growth rate which relate to the year-on-year change of the real gross domestic product (GDP).

Inflation is the year-on-year change in consumer price index stability of the macroeconomic environment serve as an incentive for investments, savings and economic growth. Further macroeconomic stability helps investors and economic agents in planning which may boost the economy. Since inflation is employed as a proxy for a stable macroeconomic environment, a negative relationship is expected between inflation and poverty.

Per capita income relates to gross national income (GNI) at constant $ 2011 prices and it is employed as a proxy for development within the economy.

Domestic credit to private sector by banks is calculated as percentage of Gross Domestic Product (GDP). It relates to financial resources delivered to the private sector by other depository corporations. The Age dependency ratio which relates to the measurement of the

percentage of dependents on working-age population. ICT is used as a proxy for number of persons having mobile in a country, it is measured as a percentage of the total population in the country.

3.3.2 Dependent Variables

The dependent variables used in the research are the Index of Financial inclusion (IFI) and the Multi-Dimensional Poverty Index (MPI).

Index of Financial Inclusion

The index of financial inclusion (IFI) is a multi-dimensional index that takes into account information on various dimensions of financial inclusion in one single digit lying between 0 and 1, where 0 indicates total financial exclusion and 1 specifies total financial inclusion in a country. Depending on the value of IFI, countries are grouped into three main categories;

$0.5 < IFI \leq 1$ represents high financial inclusion economy.

$0.3 \leq IFI < 0.5$ represents medium financial inclusion economy.

$0 \leq IFI < 0.3$ represents low financial inclusion economy.

Multi-dimensional Poverty Index (MPI)

The Human Poverty Index (HPI) compiled by UNDP in 2006 is an additional measure of poverty. It measures poverty in three areas of deprivation. These comprise life, basic education and economic provision. The 2006 UNDP report states that there is evidence of poverty in life when one dies before age forty (40). In respect of basic education, the report measures the fraction of adults who are illiterate and finally for the economic provision, it measures the fraction of people without access to safe water and the fraction of children underweight. A further measure of poverty is the Multi-Dimensional Poverty Index (MPI) which revolves around the three measurements of poverty just like the Human Poverty Index (HPI). The difference is that while HPI concentrates on aggregate level data, MPI concentrates on

individual level data thereby making it concentrate directly on a poverty measurement. The three levels it concentrates on include health, education and living standards.

3.4 Sources of Data

For the purpose of this study, data are obtained from World Development Indicators, Findex Database, United Nations Development Programme (UNDP) Database and World Governance Indicators of the World Bank. Cross-sectional data for each indicator represent the mean values from 2010 to 2014. Most of the variables are conveyed in a log scale, a low-income economy dummy variable is the World Bank classification of a low-income economy. The variable takes a value of 1 if it is a low-income economy, and 0 otherwise. The dummy variable for low-income economy is added to take care of small emerging economies in Sub-Saharan Africa.

3.5 Population and Sample Size

While conducting the research, availability of data was an important challenge. The latest years for which data was available for a reasonable number of countries was 2010 to 2014. When considering the number of countries in the study, then data are available for only 40 countries in the Sub-Saharan Africa region.

The population for the purpose of the study covered only Sub-Saharan African countries. The data covered 40 countries in the region. The rest of the countries in the region do not have enough data on the variables used in the study to be part.

CHAPTER FOUR

ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents the Index of Financial Inclusion for Sub-Saharan Africa, data description, correlation Matrix, analysis and discusses findings of the study based on scientific methods and procedures. The chapter acts on the research questions as provided in chapter one and provides detailed discussions and empirical findings in the form of tables to show the estimated results for the determinants of financial inclusion in Sub-Saharan Africa. The chapter further analyses and discusses the extent to which access to finance can lower poverty in Sub-Saharan Africa economies. Findings are presented in appropriate forms using tables. Answers to all research questions are therefore found in this chapter. For all results, discussions are made based on theoretical and empirical views.

4.1 Data Description

This section presents an initial summary of the variables being study. Summary statistics comprising, number of observations, means, standard deviations, minimum and maximum values of the variables used in the models are presented.

Table 4.1: Descriptive Statistics of the Data

Variable	Observations	Mean	Std. Dev.	Min	Max
IFI	200	0.3825361	0.1272472	0.171129	0.8424915
Rule of Law	200	-0.62264	0.5913233	-1.81321	0.949529
Remit	185	9.44E+08	3.31E+09	0	2.08E+10
GNI per capita	174	4889.444	6298.051	568.468	31970.69
Education completion	128	72.54721	15.51089	42.77253	96.1024
Age Dependency	200	81.09135	14.62455	40.79566	98.1881
Population	200	2.06E+07	3.13E+07	87441	1.77E+08
Inflation	199	6.597215	6.365282	-2.40464	37.39336
MPI	200	0.51691	0.0956445	0.378	0.777
Employment	190	64.95	13.14009	36.9	86.6
ICT	200	73.9985	34.83852	7.869542	97.3751
Credit to private sector	188	22.68254	18.46632	3.894629	99.2603
GDP Growth	200	5.102254	3.314205	-8.92418	20.71577

Source: Author's own calculations

Table 4.1 shows the summary descriptive of the data used in the study. The Index of Financial Inclusion (IFI) has a mean value of 0.3825366, meaning most of the countries in Sub-Saharan Africa during the study period belong to medium financial inclusion economies based on Sarma's (2008) categorisation of countries related to their IFI values. While the average multi-dimensional poverty index (MPI) is 0.51691 indicating 51.6 percent of the population in the region lives in poverty. Rule of law has an average of -0.62264 which suggest that the level quality of good governance in most countries in the region during the study period was poor. The rule of law index lies between -2.5 and 2.5. A country is said to have good governance if the rule of law index is closer to 2.5. The average personal remittance (Remit) that came into Sub-Saharan Africa during the study period in (United States) US dollar term is $ 944 million Over the period, Gross National Income (GNI) per capita was at an average of $ 4,889.444 which indicates that most of the countries in Sub-Saharan Africa during the study period were not in the low-income economy bracket according to World Bank Economy classifications, they were low-middle income countries. Primary Education Completion had an average ratio of 72.54721 indicating 72.5 percent of the population in the region has completed primary

education. Meanwhile, the Age Dependency ratio also had a mean of 81.1percent meaning 81.1Percent of the working population have dependents of all relevant ages.

The average population of the region over the period is 20,600,000. The average inflation (consumer price index) is 6.60 percent over the study period, and employment has a mean value of 64.95 percent of all working age over the period; meaning 64.95 percent of the population were in employment. ICT has an average of 73.9985 percent meaning 74 percent of the population in the region own a mobile phone. Domestic credit to private sector has an average of 22.68254 indicating that, only 22.68 percent credit of Gross Domestic Product (GDP) is made available to the private sector by domestic banks over the study period. And last but not the least, the growth rate has an average of 5.102254 percent meaning the region's economy is not shrinking but rather expanding; Africa Development Bank 2013's annual report also indicates that Africa is the second fastest growing economy in the world after Asia, with an annual GDP growth rate in excess of 5 percent over the last ten years (AfDB, 2013).

4.2 Correlation Matrix

The linear independency of the explanation variables is examined using a correlation matrix. The Pearson Product Movement Coefficient of correlation for pairs of independent variables measures the degree of linear relationship between two or more variables. Table 4.2 below shows the correlation matrix for the variables used in the study and indicates that weak relationships exist among most of the independent variables used in the study, thus preventing any potential multicollinearity problems in the regression estimates.

Table 4.2: Correlation Matrix for Model 1

	IFI	GNI	Rule	Pop	Edu	ICT	Remit	Age
IFI	1.0000							
GNI	0.1715	1.0000						
Rule	0.4120	0.3036	1.0000					
Pop	0.0016	-0.1580	-0.2130	1.0000				
Edu	0.4705	0.2027	0.5681	-0.2666	1.0000			
ICT	0.2689	0.5178	0.4601	-0.2259	0.4396	1.0000		
Remit	0.1912	0.0068	-0.1718	0.7831	0.0095	-0.0171	1.0000	
Age	-0.3982	-0.6205	-0.5465	0.2524	-0.6205	-0.6041	0.0828	1.0000

Source: Authors own computations. Note: IFI represents Index of Financial Inclusion, GNI stands for Gross National Income, Rule stands for Rule of law, Pop represents population, Edu stands for primary education completion, ICT stands for Information Communication Technology, Remit stands Remittance and Age stands for Age dependency

Generally, it was not expected that there would be strong correlations among the independent variables. The correlations between the independent variables ranged between 0.0016 and 0.7831 for model 1 is shown in Table 4.2 above. The highest strongest correlation was reported between Remittance and Population (0.7831)

Table 4.3 Correlation Matrix for Model 2

	MPI	IFI	Rule	Inf	Edu	Empl	Crps	Remit	Growth
MPI	1.0000								
IFI	0.4383	1.0000							
Rule	0.5805	0.4120	1.0000						
Inf	-0.1705	0.0052	-0.1198	1.0000					
Edu	0.7169	0.4705	0.5681	-0.1040	1.0000				
Empl	-0.3798	-0.2391	-0.1851	-0.0402	-0.2223	1.0000			
Crps	0.5898	0.3553	0.6763	-0.1895	0.5517	-0.3586	1.0000		
Remit	-0.0321	0.1912	-0.1718	0.0968	0.0095	-0.1737	-0.0879	1.0000	
Growth	-0.1137	-0.0684	-0.0067	0.0559	0.0221	0.1503	-0.1643	0.0377	1.0000

Source: Author's own computation. Note: MPI represents Multi-Dimensional Poverty Index, IFI stands for Index of Financial Inclusion, Rule represents Rule of law, Inf stands for Inflation Edu stands for Primary Education completion, Empl stands for Employment, Crps represents Credit to private sector, Remit stands for Remittance and Growth stands for Gross Domestic Product Growth rare.

Generally, it was not expected that there would be a strong correlation among the independent variables. The correlations between the independent variables ranged between -0.0067 and 0.6763 as

shown in Table 4.3. The highest strongest correlation was reported between Rule of law and Credit to private sector (0.6763).

4.3 Index of Financial Inclusion for Sub-Saharan Africa Economy

This section presents the index of financial inclusion of the selected countries in Sub-Saharan Africa in the study and categorizes them into three main groups based on their IFI values. This is based on the first objective of the study.

Table 4.4: Index of Financial Inclusion

Economy	IFI	IFI Rank
Angola	0.40	10
Benin	0.31	29
Botswana	0.51	6
Burkina Faso	0.29	33
Burundi	0.28	36
Cabo Verde	0.76	1
Cameroon	0.29	33
Comoros	0.30	31
Congo, Dem. Rep.	0.31	29
Congo, Rep.	0.27	40
Cote d'Ivoire	0.34	25
Equatorial Guinea	0.30	31
Ethiopia	0.28	36
Gabon	0.38	17
Gambia, The	0.29	33
Ghana	0.43	8
Guinea-Bissau	0.28	36
Kenya	0.32	28
Lesotho	0.40	10
Liberia	0.28	33
Madagascar	0.35	23
Malawi	0.40	10
Mali	0.37	19
Mauritania	0.36	21
Mauritius	0.41	9
Namibia	0.52	5
Nigeria	0.55	4
Rwanda	0.39	14
Sao Tome and Principe	0.56	3
Senegal	0.38	17
Seychelles	0.60	2
Sierra Leone	0.36	21
South Africa	0.39	14
Sudan	0.33	27
Swaziland	0.49	7
Tanzania	0.34	25
Togo	0.40	10
Uganda	0.39	14
Zambia	0.35	23
Zimbabwe	0.37	19

Source: Author's own computations

Based on the first objective, Table 4.4 presents the Index of Financial Inclusion. Depending on the value of IFI, countries are categorized into three, countries with an IFI $0.5 < IFI \leq 1$ are termed as high

financial inclusion economies. Secondly, countries with an IFI value $0.3 \leq IFI < 0.5$ are considered as medium financial inclusion economies and finally, countries with an IFI values $0 \leq IFI < 0.3$ are considered as low financial inclusion economies.

In the group of 40 countries for which a three-dimensional IFI has been estimated by using data on three dimensions of financial inclusion, Cabo Verde leads with the highest value of IFI followed by the Seychelles, Sao Tome and Principe, Botswana and Nigeria. Only these five countries in the sub region belong to the high IFI group with IFI values of 0.5 or more. Another 28 countries which includes; Angola, Benin, Comoros, Congo DR, Cote d'Ivoire, Equatorial Guinea, Gabon, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Namibia, Rwanda, Senegal, Sierra Leone, South Africa, Sudan, Swaziland Tanzania, Togo, Uganda, Zambia and Zimbabwe form the group of medium IFI countries in Sub-Saharan Africa with IFI values between 0.3 and 0.5.

Among the 40 countries, Congo Republic ranks the lowest, 40^{th} with an IFI value 0.27 placing it among low financial inclusion economies. Others in low financial inclusion economy includes, Cameroon, Ethiopia, The Gambia, Guinea-Bissau, Liberia and Burundi.

A lot of observations can be made. First countries that are not low-income economies are incline to have greater financial inclusion than evolving and emerging economies. This finding is related to those of Honohan (2008) and Sarma (2008). Secondly, remarkably, some smaller economies have very high index of financial inclusion, even though they are developing economies; for example, Cabo Verde.

4.4 Determinants of financial Inclusion in Sub-Saharan Africa in line with the second objective of the study, the relationship between financial inclusion and determinants in Sub-Saharan Africa was examined while controlling for small economies. Table 4.5 shows the results below;

Table 4.5: Regression Results on Financial Inclusion

IFI	Coef.	Std. Err.	Z	P> |Z |
Rule of Law	0.0415	0.0400	1.0400	0.3000
LogGNI	0.0790	0.0379	2.0800	0.0370
LogPop	-0.0247	0.0148	-1.6600	0.0960
LogEdu	0.0061	0.0931	0.0700	0.9480
LogICT	-0.0754	0.3595	-2.1000	0.0360
LogRemit	0.0155	0.0093	1.6600	0.0970
Age Dep	0.0010	0.0021	0.4800	0.6320
Eco Dummy	-0.0251	0.4227	-0.5900	0.5520
Constant	0.1120	0.6037	0.1900	0.8530
Wald Chi2(8)	19.8400			
Prob>Chi2	0.0110			
R-squared	0.3735			
Observations	103.0000			
Hausman Chi2 (7)	11.9800			
Prob>Chi2	0.1011			
Wooldridge test F (1,16)	7.1210			
prob>F	0.0168			

GNI stands for Gross National Income, Pop is population, Age Dep stands for Ade dependency ratio, Remit is Remittances, Edu stands for Primary education completion, Eco Dummy stands for low income economy and IFI represents index of financial inclusion

The results indicate that, between the country features, GNI per capita income and remittances expressively impact the level of financial inclusion in Sub-Saharan Africa. Precisely, higher per capita income and remittances considerably promote financial inclusion. GNI per capita being positive means household will only be able to have an account with formal financial institutions if they have sufficient income. Remittances positively promotes financial inclusion because most family members at abroad will prefer formal financial institutions to remit to their family members back home than any other medium which is informal; for that matter, most people expecting remittances from their family and friends abroad opens bank accounts with formal financial institutions.

While ICT and demographic structure meaningfully reduces financial inclusion in Sub-Saharan Africa. ICT reduces the level of financial inclusion in the region which is not surprising. This result supports Demirguc-Kunt & Klapper (2012) when the first analysed the Global Findex Data in 2012 which excludes mobile money accounts only 24 percent of Sub-Saharan Africa adult population was financially inclusive far below the world average which was 51 percent; but in when in 2014 when the second round of the Global Findex data was collected and this time mobile money accounts were

included in the data, the formal financial inclusion level of all regions in the globe see significant improvement except Sub-Saharan Africa which remained at 24 percent in formal financial sector but recorded 10 percent growth in mobile money accounts Demirguc-Kunt & Klapper (2015). Population turn to reduce the level of financial inclusion in Sub-Saharan Africa which is an indication that rapid population growth put intense pressure on household income leaving them with little or no income to enable them have account with formal financial institutions. The results suggest that per capita income is the main factor for financial inclusion in Sub-Saharan Africa and that involuntary financial exclusion in the region may be greatly determined by inadequate household income and a high-risk profile rather than by market failures and weak implementation of contract agreements. These outcomes are constant with the results of Honohan (2008), that there is a strong indication showing the significance of per capita income on financial inclusion, but related to Honohan's (2008) estimations, primary school education completion has no important impact on the level of financial inclusion in Sub-Saharan Africa.

4.5 Linkage between Poverty and Access to Finance

In line with the third research objective in the study, the relationship between poverty and financial inclusion in Sub-Saharan Africa is examined while controlling for macroeconomic factors. The results are shown in Table 4.6 below;

Table 4.6: Regression Results on Poverty

MPI	Coef.	Std. Err.	t	P>|t|
IFI	0.0002	0.0091	0.0200	0.9830
Rule of Law	0.1907	0.0087	2.2000	0.0310
Inflation	0.0004	0.0002	1.9400	0.0570
LogEdu	0.0229	0.0121	1.8900	0.0630
Log Employ	0.1239	0.0856	1.4500	0.1520
LogCrPS	0.3080	0.0058	5.2700	0.0000
LogRemit	0.0013	0.0014	0.8700	0.3870
GDP Growth	0.0004	0.0003	1.6000	0.1140
Constant	-0.2264	0.3607	-0.6300	0.5320
F (8,69)	7.3700			
Prob>Chi2	0.0000			
R-squared	0.2529			
Observations	108.0000			
Hausman Chi2 (8)	18.2600			
Prob>Chi2	0.0193			
Wooldridge test F (1,17)	48.5230			
prob>F	0.0000			

IFI stands for index of financial inclusion, MPI stands for multi-dimensional poverty index, Edu stands for Primary education completion, CrPs stands for credit to private sector, Employ stands for employment and Remit represents remittances

There is a positive and significant relationship between poverty and rule of law, primary education completion, domestic credit to private sector and inflation. This suggests that in Sub-Saharan Africa, poverty can be reduced if the private sector were to receive more credit facilities from domestic banks, which will enable the private sector to expand and translate to employment creation which in effect will lower poverty in the region.

The results also suggest that rule of law is critical in reducing the level of poverty in the region. This means that if the individual countries in the region improve upon rule of law, it will have a positive impact on investment in Sub-Saharan Africa. Good governance and high institutional quality meaningfully reduces poverty. This suggests that to lower the poverty level, Sub-Saharan Africa must advance the quality of governance and institutions, precisely through the consolidation of the rule of law, together with the implementation of agreements and financial regulatory oversights. This result is also consistent with the idea that education lowers poverty as it allows persons to obtain and use

their knowledge and talents that increase their engagement and visions and, consequently, earn higher wages. There is also a positive and significant relationship between poverty and inflation. This means that poverty levels in Sub-Saharan Africa reduces when inflation is low but the poverty level rises when the inflation is high in Sub-Saharan Africa.

But financial inclusion has no substantial impact on the level of poverty reduction in Sub-Saharan Africa which suggests that financial inclusion lowering poverty may be region specific.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter begins with the summary of key findings of the study which was centred on the objectives of this study. The chapter also provides the conclusions, and recommendations of the study. The last part of this chapter proposes future research directions.

5.2 Summary of Key Findings

This section offers a summary of very important outcomes on the determinants of financial inclusion and finally the effects of financial inclusion on poverty reduction in Sub-Saharan Africa. The subject of financial inclusion has gained attention globally in recent years. Studies have explored how access to finance can influence poverty reduction, economic development, welfare improvement and other areas of the economy.

This study set out to examine the impact of financial inclusion in poverty reduction in Sub-Saharan Africa. Using a representative sample of 40 countries from the region covering a period from 2010 to 2014, the study examines the level of financial inclusion among the countries in the region. Sarma's (2008) approach was used in computing the index of financial inclusion for the 40 countries in the study. The study also examines the factors that determine financial inclusion in Sub-Saharan Africa and finally, how financial access affects poverty reduction in the region. The study is quantitative in nature and made use of econometric models in the estimations.

The findings of the study indicate that, most countries in Sub-Saharan Africa have medium financial economies and over the study period. Secondly, the findings suggest that, Gross National Income (GNI) per capita and remittances are the main determinants of financial inclusion in the region, meaning that per capita income is the main factor for determining financial inclusion in Sub-Saharan Africa and that involuntary financial exclusion in the region

may be determined greatly by inadequate household income and high-risk profile rather than market failures and weak implementation of contractual agreements. Moreover, the findings also clearly suggest that financial access does not have any meaningful impact on poverty reduction in the region but credit to private sector by domestic banks (financial depth) significantly reduced poverty in Sub-Saharan Africa.

5.3 Conclusions

Sub-Saharan Africa have low financial inclusion in comparing with the rest of the world. Financial inclusion cannot help in alleviating poverty level and improve economic growth in Sub-Saharan Africa. Identifying the determinants of financial inclusion and the impact of financial inclusion on poverty in Sub-Saharan Africa is a key issue. In an effort to examine likely solutions to the factors that determine financial inclusion in Sub-Saharan Africa and how financial inclusion can assists reduce poverty in the region, this study was conducted using data on 40 economies in the region. The main findings of the study can be summarised as follows.

First, the study finds that most countries in Sub-Saharan Africa are medium financial economies. this finding supports the view that policies in favour of financial inclusion should aim at improving the level of formal financial system.

Second, the result of the study suggests that, between the country features, Gross National Income (GNI) per capita income and remittances considerably impact the level of financial inclusion in Sub-Saharan Africa. Precisely, higher per capita income and remittances significantly increase financial inclusion. The results support the view that per capita income is the key element for financial inclusion in Sub-Saharan Africa and that involuntary financial exclusion in Sub-Saharan Africa may be greatly influenced by inadequate household income and high-risk profile rather than by market failures and weak implementation of contracts agreements.

Third, the findings suggest that financial inclusion does not reduce poverty in Sub-Saharan Africa. In other words, if financial development lowers poverty, it is in its depth dimension (credit to private sector of GDP) rather than the access dimension in Sub-Saharan Africa.

To sum it all, the study's findings make particular interest to formulate policies to encourage financial inclusion in Sub-Saharan Africa. The study emphasis on the role of policies formulating that will target improving household's income levels since inadequate household income is the main cause of involuntary financial exclusion in the region.

5.4 Recommendations

Based on the empirical findings above, the study makes the following recommendations for both policy making and implementation.

First based on the finding that per capita income is the major determinant of financial inclusion and involuntary financial exclusion is greatly influenced by insufficient household income and high risk profiling in Sub-Saharan Africa, the region's policy makers and leaders must develop policies and conduct research that centre on involuntary exclusion as it can be solved by suitable economic programmes and strategies which can be intended to increase income levels and correct market failures and imperfections.

Secondly, the various governments in the region should have policies towards reducing the rapid population growth since it reduced the level of financial inclusion. The region, as a matter of urgency must put policies in place to integrate mobile money technology fully with the formal financial system since the mobile money technology has a great potential to help the region achieve some appreciable level of financial inclusion. But currently the mobile money technology (ICT) is significantly reducing level of formal financial sector in Sub-Saharan Africa.

Finally, the findings suggest that financial inclusion in Sub-Saharan Africa does not significantly reduce poverty, but rather it is credit to the private sector (financial depth) that

has significant impact of reducing poverty in the region. To lower poverty levels in Sub-Saharan Africa, policymakers should devise strategies that will resolve obstacles to financial development (financial depth). For this to be effective, the role of microfinance is very important.

5.5 Future Research Direction

On the basis of the findings above, the following have been recommended for future research in this area. First, the Global Financial Inclusion Findex Database should be providing future data so researchers can conduct studies with it to find out whether financial inclusion can aid reduce corruption in Sub-Saharan Africa.

Secondly, future researchers can try to combine macro-economic variables with the individual level data to determine how they affect the individual's level of financial inclusion in Sub-Saharan Africa.

REFERENCES

Aleksa Nenadovic and Pavle Golicin (2015), Financial Inclusion in Serbia an Analysis of Status, Barriers, Benefits and Opportunities, Social Inclusion and Poverty Reduction Unit of the Government of the Republic of Serbia.

Allen, F., Demirgüç-Kunt, A., Klapper, L. F., & Martinez Peria, M. S. (2012). The foundations of financial inclusion: Understanding ownership and use of formal accounts. World Bank Policy Research Working Paper (6290).

Akhter, S., & Daly, K. J. (2009). Finance and poverty: evidence from fixed effect vector decomposition. Emerging Markets Review, 10(3), 191-206.

Amidžić, G. A. Massara, and A. Mialou. 2014. Assessing Countries' Financial Inclusion Standing—A New Composite Index. International Monetary Fund Working Paper No. 14/36. Washington, DC.

Anson, J., Berthaud, A., Klapper, L., & Singer, D. (2013). Financial inclusion and the role of the post office.

Aportela, F. (1998). Effects of financial access on savings by low-income people: MIT, mimeo.

Arestis, P., Demetriades, P., 1997. Financial development and economic growth: Assessing the evidence. The Economic Journal 107, 783-799.

Ashraf, N., Karlan, D., & Yin, W. (2010). Female empowerment: Impact of a commitment savings product in the Philippines. World development, 38(3), 333-344.

Barclays (2014), Banking on Change: Breaking the Barriers of Financial Inclusion.

Beck, T., Demirguc-Kunt, A., & Peria, M. S. M. (2007). Reaching out: Access to and use of banking services across countries. Journal of Financial Economics, 85(1), 234-266.

Beck, T., Levine, R., Loayza, N., 2000. Finance and the sources of growth Journal of Financial Economics 58, 261-300.

Beck, T., Maimbo, S. M., Faye, I., & Triki, T. (2011). Financing Africa: through the crisis and beyond: World Bank.

Bruno, Michael, Martin Ravallion, and Lyn Squire, 1996, "Equity and Growth in Developing Countries: Old and New Perspectives on the Policy Issues," World Bank Policy Research Working Paper, No. 1563 (Washington: World Bank, January).

Bulir, Ales, and Anne-Marie Gulde, 1995, "Inflation and Income Distribution: Further Evidence on Empirical Links", IMF Working Paper 95/86 (Washington: International Monetary Fund, August).

Camara, N., Peña, X., & Tuesta, D. (2014). Factors that Matter for Financial Inclusion: Evidence from Peru. The International Journal of Finance (forthcoming).

Carbo, S., E. P. M. Gardener, P. Molyneux (2005), Financial Exclusion, Palgrave MacMillan

Carmen Hoyo Martinez, Ximena Pena Hidalgo and David Tuesta (2013), Demand factors that influence financial inclusion in Mexico: analysis of the barriers based on the ENIF survey, Working Paper No. 13/37.

Chakravarty, S. R., & D'Ambrosio, C. (2013). An axiomatic approach to the measurement of poverty reduction failure. Economic Modelling, 35, 874-880.

Conroy, J. (2005), APEC and Financial Exclusion: Missed Opportunities for Collective Action? Asia-Pacific Development Journal, 12(1), June 2005.

David, J. Timothy, S. (2002). Poverty Levels in Developed World Luxembourg Income Study Working Paper Series. Working Paper No. 321.

Dehejia, R., Gatti, R., (2005). Child labour: The role of financial development and income variability across countries. Economic Development and Cultural Change 53, 913-932.

Deininger, Klaus, and Lyn Squire, 1997, "Economic Growth and Income Inequality: Re-examining the Links", Finance and Development, Vol. 34, No. 1 (March), pp. 38-41.

Demetriades, P., Hussein, K., 1996. Does financial development cause economic growth? Time series evidence from 16 countries. Journal of Development Economics 51, 387-411.

Demetriades, P., James, G., 2011. Finance and growth in Africa: The broken link. Economics Letters 113(3), 263-265.

Demirgüç-Kunt, Asli, Thorsten Beck, and Patrick Honohan. 2008. Finance for All? Policies and Pitfalls in Expanding Access. World Bank Policy Research Report. Washington: World Bank.

Demirguc-Kunt, A., Levine, R., 1996. Stock market development and financial Intermediaries: Stylized facts. World Bank Economic Review 10, 291-321.

Demirgüç-Kunt, A., Klapper, L. F., & Singer, D. (2013). Financial inclusion and legal discrimination against women: evidence from developing countries. World Bank Policy Research Working Paper (6416).

Demirgüç-Kunt, A., Córdova, E. L., Pería, M. S. M., & Woodruff, C. (2011). Remittances and banking sector breadth and depth: Evidence from Mexico. Journal of development economics, 95(2), 229-241.

Demirguc-Kunt, A., Klapper, L., & Randall, D. (2013). Islamic finance and financial inclusion: measuring use of and demand for formal financial services among Muslim adults World Bank Policy Research Working Paper 6642.

Efobi, U., Beecroft, I., & Osabuohien, E. (2014). Access to and use of bank services in Nigeria: Micro-econometric evidence. Review of Development Finance.

European Commission (2008), Financial services Provision and Prevention of Financial Exclusion, Report by the Director General for Employment, Social Affairs and Equal Opportunities, European Commission.

Fadun, S. O. (2014). Financial Inclusion, Tool for Poverty Alleviation and Income Redistribution in Developing Countries: Evidences from Nigeria.

Foster, J. E. (1998). Absolute versus relative poverty. American Economic Review, 335-341.

Fishlow, Albert, 1996, "Inequality, Poverty, and Growth: Where Do We Stand?" Annual World Bank Conference on Development Economics 1995 (Washington: The International Bank for Reconstruction and Development), pp. 25-39.

Freund, C. L., & Spatafora, N. (2005). Remittances: transaction costs, determinants, and informal flows. World Bank Policy Research Working Paper, (3704).

Freund, C., & Spatafora, N. (2008). Remittances, transaction costs, and informality. Journal of Development Economics, 86(2), 356-366.

Goldsmith, R., 1969. Financial Structure and Development, New Haven, CT: Yale University Press.

Graf, M., 2002. Causal links between financial activity and economic growth: Empirical evidence from a cross-country analysis 1970-1990. Bulletin of Economic Research 54(2), 119 133.

Greenwood, J., Jovanovic, B., 1990. Financial development, growth, and the Distribution of income. The Journal of Political Economy 98, 1076-1107.

Hernández-Coss, R. (2005). The US-Mexico remittance corridor: Lessons on shifting from informal to formal transfer systems (No. 47). World Bank Publications.

Honahan, P. 2007. Cross-Country Variation in Household Access to Financial Services. World Bank

Honohan, P. 2008. Cross-Country Variation in Household Access to Financial Services. Journal of Banking and Finance 32: pp. 2493–2500. India.

Honohan, P. (2008). Cross-country variation in household access to financial services. Journal of Banking & Finance, 32(11), 2493-2500.

Imai, K. S., Arun, T., & Annim, S. K. (2010). Microfinance and household poverty reduction: New evidence from India. World development, 38(12), 1760-1774.

Imai, K. S., Gaiha, R., Thapa, G., & Annim, S. K. (2012). Microfinance and poverty—a macro perspective. World development, 40(8), 1675-1689.

Irving, J., Mohapatra, S., & Ratha, D. (2010). Migrant remittance flows: findings from a global survey of central banks (Vol. 194). World Bank Publications.

Jalilian, H., & Kirkpatrick, C. (2005). Does financial development contribute to poverty reduction? Journal of Development Studies, 41(4), 636-656.

Karlan, Dean and Jonathan Morduch. 2009. "Access to Finance" in Dani Rodrik and Mark Rosenzweig (eds), Handbook of Development Economics, Volume 5: 4704- 4784. Amsterdam: Elsevier.

Khadija Ali, Umer Khalid and Zahra Khalid (2012), Promoting Financial Inclusion and Literacy in Pakistan via G2P Payment Programs, Prepared by Pakistan Microfinance Network for the World Bank.

King, R., Levine, R., 1993. Finance and growth: Schumpeter might be right. Quarterly Journal of Economics 108, 513-542.

Leyshon, T. 1995. Geographies of Financial Exclusion: Financial Abandonment in Britain and the United States. Transactions of the Institute of British Geographers New Series. 20: pp. 312–341.Paper Conference on "Access to Finance," Washington, DC.

Levine, R., 1997. Financial development and economic growth: Views and agenda. Journal of Economic Literature 35, 688-726.

Levine, R., (2008). Finance and the poor. The Manchester School 76, 1-13.

Mbutor, M. O., & Uba, I. A. (2013). The impact of financial inclusion on monetary policy in Nigeria. Journal of Economics and International Finance, 5(8), 318.

McKinnon, R., 1973. Money and capital in economic development. Washington: The Brooking Institution.

Milanovic, Branko, 1994, "Determinants of Cross-Country Income Inequality: An Augmented Kuznets' Hypothesis," World Bank Policy Research Working Paper, No. 1246 (Washington: World Bank, January).

Mohan, Rakesh (2006), Economic Growth, Financial Deepening and Financial Inclusion, Address at the Annual Bankers' Conference 2006, Hyderabad on November 3, 2006.

Mohapatra, S., & Ratha, D. (Eds.). (2011). Remittance markets in Africa. World Bank Publications.

Pagano, M., 1993. Financial markets and growth: An overview. European Economic Review 37, 613-622.

Rajan, R., Zingales, L., (2003). The great reversals: The politics of financial development in the twentieth century. Journal of Financial Economics, 69(1), 5-50.

Ratha, D. *(*2003*).* Workers' Remittances: An External and Stable Source of External Development Finance. Global Development Finance. Washington, DC*: World Bank.*

Ratha, D. (Ed.). (2011). Leveraging migration for Africa: remittances, skills, and investments. World Bank Publications.

Ravallion, M. (1997). Can high-inequality developing countries escape absolute poverty? Economics Letters, 56(1), 51-57.

Rewilak, J. (2013). Finance is good for the poor but it depends where you live. Journal of Banking & Finance, 37(5), 1451-1459.

Rioja, F., Valev, N., 2004. Does one size at all? A re-examination of the finance and growth relationship. Journal of Development Economics 74, 429-447.

Robinson, J., 1962. Essays in the theory of economic growth. London, Macmillan.

Rosenzweig, M., Wolpin, K., (1993). Credit market constraints, consumption smoothing, and the accumulation of durable production assets in low income countries: Investments in bullocks in India. Journal of Political Economy 101(2), 223-244.

Rousseau, P.,Wachtel, P., 1998. Financial intermediation and economic performance: Historical evidence from five industrialized countries. Journal of Money, Credit and Banking 30(4), 657-678.

Sarma, M. 2008. Index of Financial Inclusion. Indian Council for Research on International Economic Relations Working Paper No. 215.

Sarma, M. (2012). Index of Financial Inclusion–A measure of financial sector inclusiveness: Hochschule fuer Technik und Wirtschaft, Berlin.

Savita Shankar (2013), Financial Inclusion in India: Do Microfinance Institutions Address Access Barriers? ACRN Journal of Entrepreneurship Perspectives Vol. 2, Issue 1, p. 60-74.

Schumpeter, J., 1911. The theory of economic development. Harvard University Press.

Shankar, S. (2013). Financial Inclusion in India: Do Microfinance Institutions Address Access Barriers. ACRN Journal of Entrepreneurship Perspectives, 2(1), 60-74.

Siddiqui, T. (2003). Migration as a livelihood strategy of the poor: the Bangladesh case. Bangladesh: Refugee and Migratory Movements Research Unit, Dhaka University.

Sinclair S. P. 2001. Financial exclusion: An Introductory Survey. Report of Centre for Research in Socially Inclusive Services. Heriot-Watt University, Edinburgh.

Swamy, V. (2014). Financial Inclusion, Gender Dimension, and Economic Impact on Poor Households. World development, 56, 1-15.

Tuesta, D., Sorensen, G., Haring, A., Camara N. (2015) financial inclusion and its determinants: the case of Argentina. Working Paper, No 15/03.

Visco, I. (2007). Financial deepening and the monetary policy transmission mechanism. Exchange, 400, 500-000. World Bank *(*2012*).* World Development Indicators*.* Washington, DC*: World Bank.*

Williamson J, Maher M. 1998. A survey of financial liberalisation. Princeton Essays in Internatio Brownbridge M, Kirkpatrick C. 2000. Financial regulation in developing countries. Journal of Development Studies 17(1): 1–24.nal Finance No 211.

World Bank. (2008) Finance for All? Washington DC: World Bank.

World Bank. (2012). Financial Inclusion Strategies Reference Framework. Washington DC: World Bank

World Bank (2013). End Extreme Poverty 2030 Promote Shared Prosperity. Annual Report Washington DC: World Bank.

World Bank (2014). Global Financial Development Report. Washington DC: World Bank.